



LETTER FROM THE EXECUTIVE EDITOR

As we share our latest issue, we are publishing under a new name which is incredibly exciting. Having the magazine acquired by Earth Mother Community is a massive milestone for us. The platform volunteers work tirelessly to positively impact people, the planet, and society.

This mission perfectly matches our values, and we couldn't be happier to collaborate with individuals who are aligned with us. Our last issue performed incredibly well because we announced the inspirational Godfrey as our Sustainability Leader of the Year.

It's hard to top this, but we have tried our best by providing you with a jam-packed issue with articles on eco-conscious vacationing, how to embrace zero waste, the carbon footprint of technology, and much more.

We also have an exciting interview article with Ifeoma Malo, a finalist in our Sustainability Leader of the Year Awards.

I want to thank all of our excellent writers for their contributions - Vani Bhardwaj, Nubla Adam, Roisin Carter, Ana Monteiro, Breffni O'Brien, Jamie Fox, Amour Setter, Jennifer Damian, Kate Farrell, Anneke Andrews, and Eurico Borges.

I would also like to give a big round of applause to our dedicated and hard-working magazine team (we did it, guys!) - Amour Setter (Editor-in-Chief), Matthew Apping (Project Manager) and Nubla Adam (Art Director).

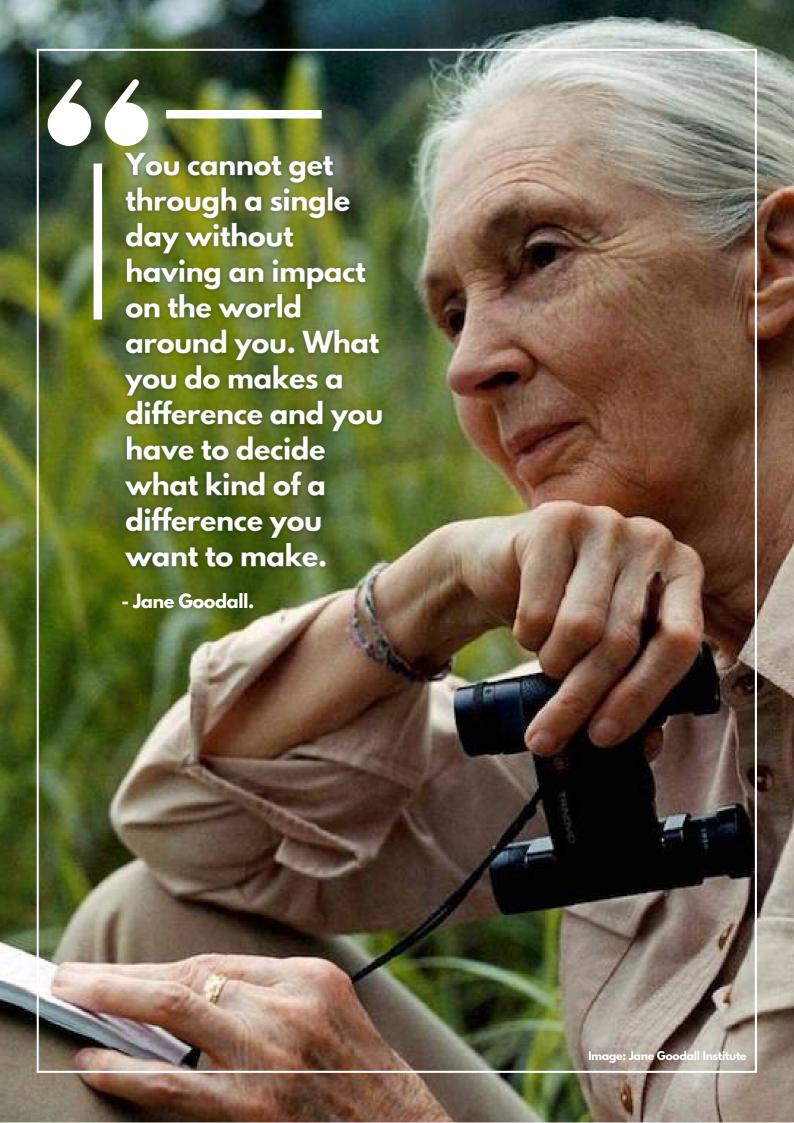
My final thank you goes to anyone who takes the time to read our magazine to consume our positive messages and advice. We hope you enjoy reading this issue, and it gets you into the sustainable spirit!

Bronagh Loughlin

Executive Editor

Bronagh Loughlin

EARTH MOTHER MAGAZINE





LETTER FROM THE EDITOR-IN-CHIEF

It has been a year since we started work on the very first issue of our beloved magazine. Our entire team and mag recently migrated away from The Planet Calls CLG to Earth Mother Community in Prague, and has undergone a rebrand. New chapter, same goals, same team. These are exciting days for us as we evolve and grow and add new members to our team. We're also proud to mention that our previous issue (4) had over 65,000 views! Not bad for an unfunded, volunteer-based magazine.

I am enormously proud of Earth Mother Community and so grateful to the dedicated volunteers who help me manage this organization. Since the organisation was set up to receive the 3 projects that migrated from The Planet Calls CLG, we are literally starting from scratch in terms of our presence on social media. We'd really appreciate it if you could head on over to our social media platforms and give us a like and a follow.

We were blessed to bring our partners with us, namely Profit With Purpose Magazine, Business Spirit Platform and Chance 4 Children. We welcome more partners, so if you want to join our family and share resources and support one another, please get in touch with us.

As usual, our mag is filled with great content designed to help you live your most sustainable life. A very special thanks to our core team: Bronagh Loughlin (Executive Editor), Matthew Apping (Project Manager) and our new team member, Nubla Adam (Art Director) who designed our beautiful mag.

I hope you enjoy reading Issue 5 from cover to cover, and allow it to feed your soul.

Amour Setter

Amour Getter

Mag Editor-in-Chief Founder/Project Director EARTH MOTHER COMMUNITY

EARTH MOTHER COMMENT



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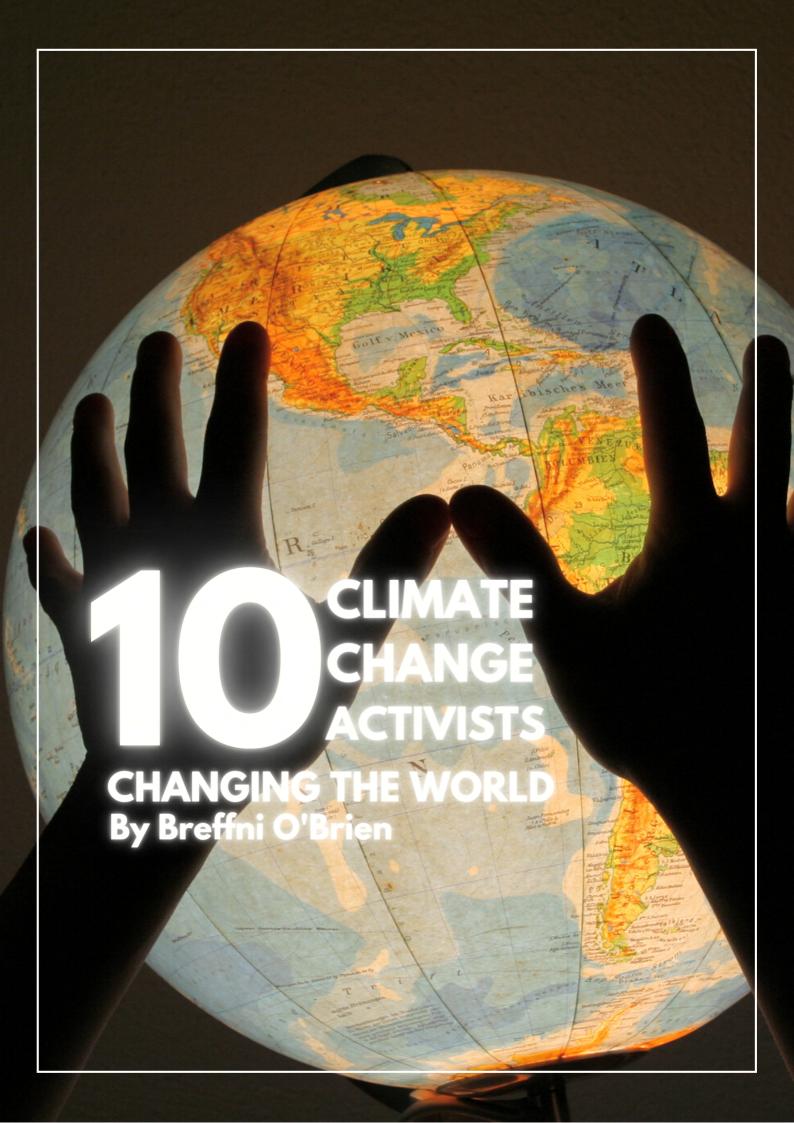
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Here are ten climate activists who are changing the world.

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has.

-Margaret Mead



Xiuhtezcatl Roske-Martinez



Also known as X, Xiuhtezcatl is a young advocate for indigenous and marginalised communities and a dedicated environmental activist. From a young age, X has been particularly vocal about the detrimental effects of fossil fuels. They were one of the 21 plaintiffs in the Juliana V United States case, where a lawsuit was filed against the US government for its failure to act on climate change and its continued use of fossil fuels.

X was also one of the seven plaintiffs in the Martinez V Colorado Oil and Gas Conservation Commission case, which sought to require the Colorado Oil and Gas Conservation Commission to deny drilling permits unless drilling activities would not adversely impact human health and the environment or contribute to climate change.

In addition to various UN speeches and TED Talks, the 22-year-old has also served as the Youth Director of Earth Guardians, an environmental activist organisation, until 2019. Since then, X has stood as Co-Youth Director.

Ineza Umuhoza Grace

As an eco-feminist, Ineza not only fights to protect the ecosystem but to empower women to lead change.

Ineza is the founder and director of The Green
Protector, aka The Green Fighter, a women-led
non-profit organisation that strives to encourage youth activism. Ineza is also the co-founder and coordinator of the Loss and Damage Youth
Coalition, which seeks to hold governments accountable for their actions that damage the environment. In addition, Ineza is a part
of the Rwandan delegation team of negotiators under the
UNFCCC (United Nations Framework Convention on Climate
Change).

Licypriya Kangujam

Since the age of 7, <u>Kangujam</u> has actively campaigned for better air pollution laws in India by protesting outside the Indian Parliament. In addition, she demanded that climate change literacy be made mandatory in schools. Since becoming one of the world's youngest climate activists, Kangujam has given TED Talks and spoken to World Leaders at the United Nations Climate Change Conference in Madrid 2019.

Kangujam has travelled to more than 32 countries, raising awareness and encouraging others to combat climate change actively. Along with founding the "The Child Movement", a young, global climate justice organisation, she also launched a symbolic device known as SUKIFU.

This "Survival Kit for the Future" was created with the support of Chandan Ghosh, a professor at the Indian Institute of Technology Jammu, and seeks to curb air pollution. Made entirely of trash, the device is designed to provide fresh air to breathe when pollution is particularly bad. Essentially, the device is a wearable plant which produces oxygen and can be inhaled.



Txai Suruí

Daughter of Almir Suruí, one of the Indigenous Leaders most distinguished for fighting against deforestation in the Amazon rainforest, <u>Txai</u> follows closely in her father's footsteps. Not only was Txai the founder of the Indigenous Youth Movement of Rondônia, but she was also the only Brazilian and Indigenous person to speak at the opening of the 26th United Nations Climate Summit Conference. During her speech, she drew the world's attention to those

at the forefront of the fight against climate change and urged leaders to defend the Amazon against deforestation.

Xiye Bastida



<u>Xiye</u> also follows in her family's footsteps as the daughter of two environmentalists who met at a climate change conference in 1992. In 2015, after bearing witness to extreme flooding in her hometown of San Pedro, Tultepec, Xiye urged governments to adopt a more aggressive approach to climate action.

Xiye is not only one of the co-founders of the Re-Earth Initiative (an international non-profit organisation that seeks to be as inclusive and intersectional as possible), but she was also one of the lead organisers of the Fridays for Future in New York City. In addition, she serves on the administration committee of the People's Climate Movement. Xiye also spoke at the Leadership Summit on Climate, where she encouraged world leaders to become more involved in climate activism.

Vanessa Nakate

Vanessa Nakate is a 25-year-old climate activist from Uganda, where she founded the Rise Up Movement. This movement provides African climate activists with a platform for their voices to be heard worldwide. Nakate, Uganda's first Fridays for Future activist is also responsible for leading a campaign to save the Congo's rainforest from deforestation and calling on governments and world leaders to take drastic, immediate action to fight climate change at COP25 and COP26.

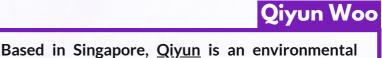


Nalleli Cobo

Having suffered from severe headaches, asthma, nosebleeds and nausea, Nalleli has experienced first-hand the detrimental impact of oil drilling on human health. When she was just nine years old Nalleli became quite ill, but she wasn't the only one - many of her family and neighbours also became very unwell. It was realised that the culprit was the active oil well across the street from their home. Joined by her community, Cobo protested until the site was temporarily shut down. But she didn't stop there. With the help of youth activists and organisations, she sued the city and demanded the implication of stricter regulations on oil extraction.

And they won.

Cobo is one of the co-founders of the campaign, "People Not Wells" which aims to end oil drilling, and she was the winner of the Goldman Environmental Prize 2022.





activist and artist who uses unique illustrations to raise awareness of climate issues and sustainability-related causes. Using social media and a range of other channels, Woo has sought to educate new audiences about environmental policies, ecology, sustainable finance and circular economy.

In addition, Qiyun works as a sustainability consultant for various stakeholders in the public and private sectors. She also hosts book clubs on ecofeminism and alternative economic models and creates content for multiple media outlets to help explain the complexities of the climate crisis and sustainability.



Maytik Avirama

Maytik is a 30-year-old climate activist from she Colombia, where co-founded organisation that connects young environmentalists. There, she also hosts a Spanish-language podcast, Radio Savia. With her podcast, she campaigns for the rights of female land defenders like herself. She also discusses the intersectionality of gender rights and environmentalism. She shines a light on important topics, such as the extreme violence environmentalists regularly face in her home country.

Ella and Amy Meek

Ella and Amy are two sisters leading the fight against plastic pollution in the UK. Having started

the campaign "Kids Against Plastic" back in 2016, when they were just 10 and 12, they are estimated to have picked up over 100,000 individual pieces of single-use plastic litter from all over the country. They have also launched initiatives in over 1000 schools and 50 cafes, festivals and businesses in the UK.

In addition to their multiple TED Talks, they have also published a book, "Be Plastic Clever", in recent years.



Conclusion

Of course, no list of climate activists would be complete without mentioning Greta Thunberg, the Swedish environmental activist who inspired a whole generation. Still, we wanted to spotlight some of the lesser-known activists who deserve just as much recognition for their hard work.

If you'd like to read more about Greta's work, check out our <u>previous magazine</u> where we wrote a dedicated piece about her. Like the individuals mentioned above, climate activists play an essential role in protecting this planet that we all share and defending the people and ecosystems that call this Earth home. They act as representatives for all of us who quietly (or not so quietly) support the movement in our own ways at home.

They give the movement a voice that we can use to call out governments, decision-makers, and world leaders to bring about meaningful and drastic changes in environmental policies to fight the climate crisis.





THE IMPORTANCE OF CULTIVATING OUR YOUTH AS ACTIVE ENVIRONMENTAL PROTECTORS

HOSTED BY

MOVING WATER ALLIANCE

PRESENTED BY JENNIFER DAMIAN

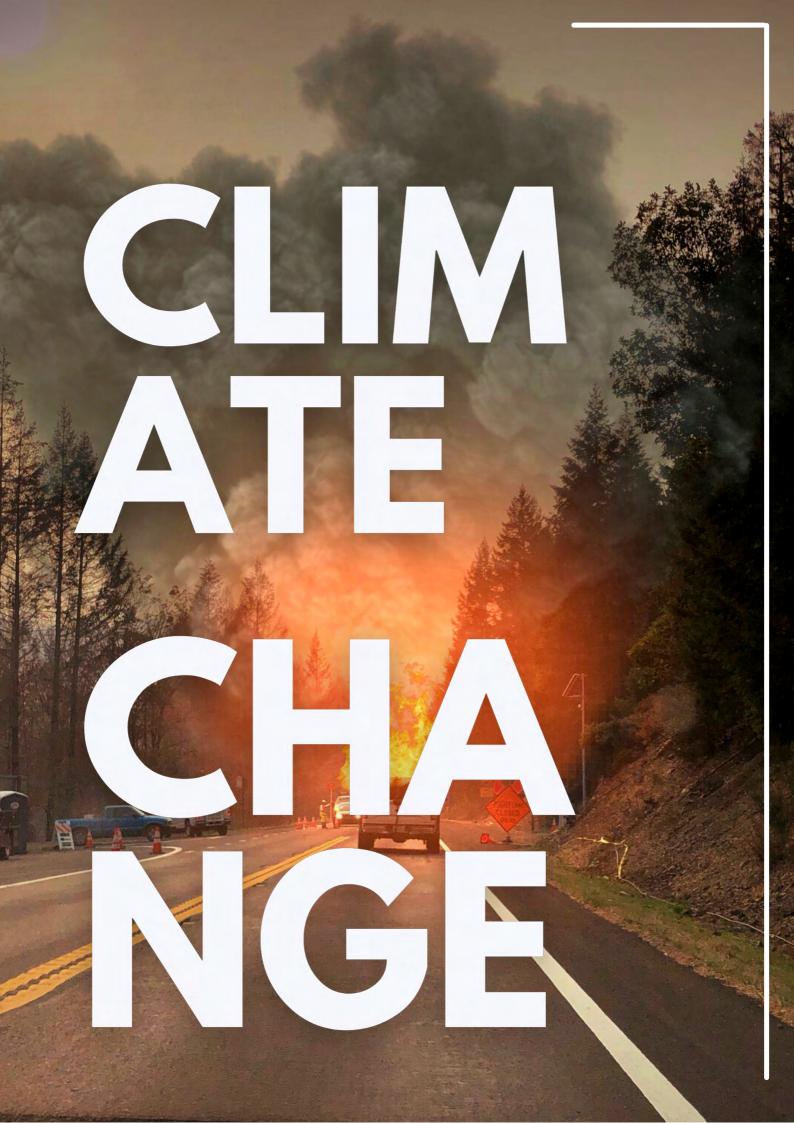
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JOIN US FOR A FREE 1-HOUR ONLINE WORKSHOP WHERE YOU WILL LEARN HOW TO ENGAGE CHILDREN AND TEENS TO BECOME ACTIVE AND SUSTAINABLE COMMUNITY MEMBERS









ne Tribe Global is a Climate Action Platform empowering businesses and customers to reduce their carbon footprint. Founded in 2019 and headquartered in Manchester, One Tribe Global decarbonises eCommerce purchases so customers can buy more sustainably.

They provide climate action tools for businesses so they can save trees and carbon offset every sale they make. This allows their partners to take climate action while pursuing their missions and making a profit. It also enables their partner businesses to participate in the UN Sustainable Development Goals and play a role in protecting the Earth.

Founded by Ric Porteus and Tom Murray, One Tribe Global is on a mission to decarbonise all online purchases by protecting billions of trees that help remove and store CO2 from our atmosphere. They enable businesses to be more sustainable by funding rainforest protection projects which work to drive positive change.

The team at One Tribe believe it is vital to focus on the rainforests because they are the lungs of our planet.

They feel a natural solution to climate change exists and that we must work to take it. One Tribe connects businesses directly with these rainforest protection charities, so every company's sales can now donate and protect rainforests and the indigenous tribes and biodiversity that call them home.

This type of climate action is instant, and One Tribe Global has built an impressive partnership network. Their partners have already had a significant impact in protecting 78,476,936 trees, storing 7,288,023 tonnes of carbon, and much more. To learn more about their journey and how they are using business as a force for good, we spoke with the CEO and Co-Founder, Ric Porteus.



The idea to launch One Tribe Global came about when Ric led the marketing department for a large organisation known as the Pacha Group. The organisation ran global festivals, events, lifestyle brands, and more. On an annual basis, they used to process around two million tickets to events. Ric says: "We wanted to understand how we could give back to charities and help offset the carbon footprint of the events and industries we were in, so we researched the EnviroTech Industry."

Fast forward a few years, Ric met Tom Murray. They were both attending an event called the Burning Man Festival in the Nevada desert. Here they bumped into each other and started talking about rainforest protection. Following on from the event, they began collaborating and formed a business. They began looking at offsetting the carbon footprint of every event ticket.

Ric explains: "We onboarded hundreds of festivals and events globally, started saving the rainforest, and every purchaser received a ticket that saves trees in the Amazon. This progressed into working outside the events industry, where they moved to New York to set up a cryptocurrency business where they could tokenise rainforest protection and other technologies. That continued for several years, amalgamating all the different projects alongside numerous conservation partners."

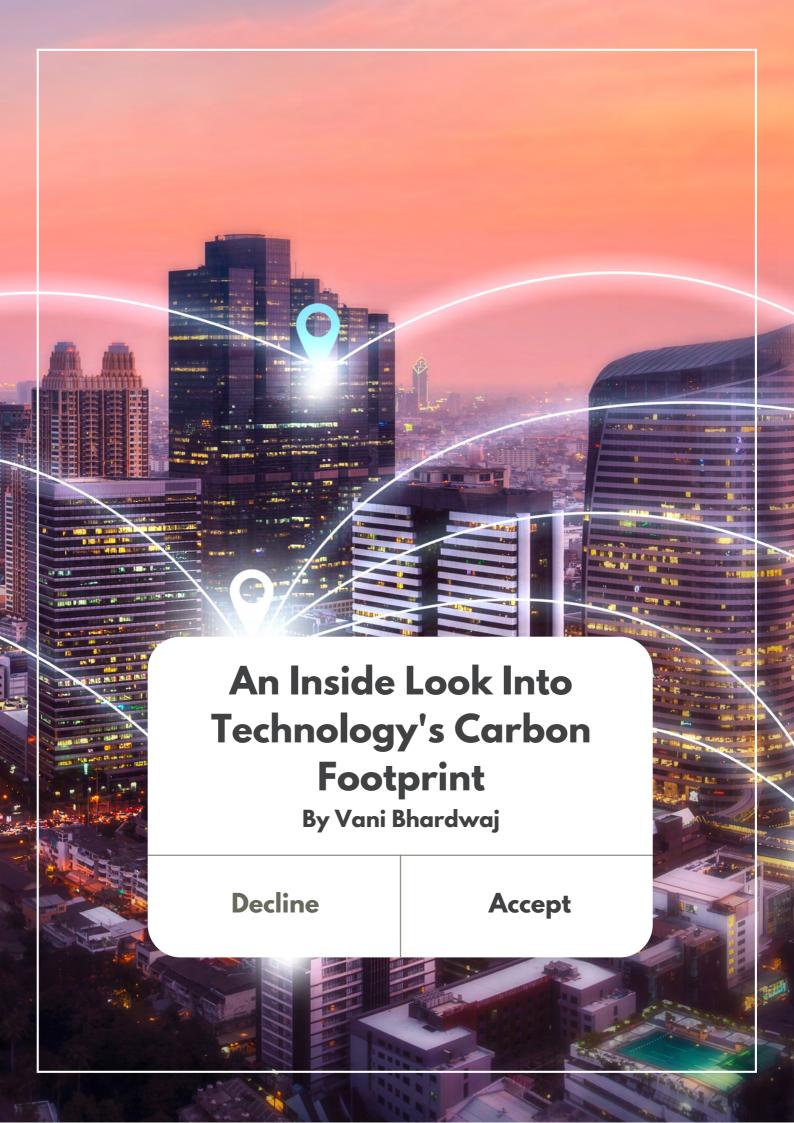
Ric says: "We wanted to create a software business that would allow connectivity to 98% of world payment systems. This was the formation of the business that we have today, where everybody works together from all industry backgrounds - from philanthropic investors to climate sciences, NGOs, and land protection specialists, all working together as one Tribe, to save the planet."

Ric speaks about why they are doing this and what makes One Tribe Global so special: "While the world focuses primarily on reducing its carbon footprint, deforestation is escalating due to the demand for agricultural land for farming. Trees require trees to protect and sequester carbon from our atmosphere, the world, the Earth, and the planet. This is because trees are the creator of oxygen and carbon remover. Therefore, trees help us to reduce atmospheric temperature alongside carbon in the oceans. Rainforests are the most important natural defence against rising temperature and the devastating impacts of elimete change."

Global Tribe One connects online businesses and customers to rainforest protection to take immediate climate action. They specialise in connecting forestry protection projects, indigenous tribal land, and rainforest organisations directly to their climate action API. This API is a set of technology that connects 98% of global payment systems, enabling businesses, whether e-commerce physical service-based, to provide a portion of every sale or transaction and committed to carbon sequestration projects globally.

Talking about the future ahead for One Tribe Global, Ric says: the future is "exciting. We are on our way to hitting our first target of protecting 1 billion trees and enabling 1000s of global businesses to participate in climate action. We see ourselves able to onboard over 10,000 global-based ecommerce brands, then 100,000 global businesses participating as one Tribe to take climate action."





Energy expenditure across gaming in the United States is equivalent to \$5 billion, with related carbon dioxide emissions amounting to over 5 million cars or 85 million refrigerators. The kind of network connection and the device used for streaming music and podcasts accrue variant carbon emissions in addition to electricity usage.

Data-intensive technologies are intricately connected with energy systems. If the electricity is being transmitted to your house from a nonrenewable source, the carbon footprint of your internet utilisation shoots up. Then again, how clean is your technology if your smartphone is made of - cobalt, lithium, silicon, graphite, magnesium, and aluminium? Considering smartphone requires 16 of the 17 rare earth metals on earth, your smartphone usage must be giving you eco-anxiety! Extraction of such minerals comes at high human costs.

The Shift Project's 'Climate Crisis: The Unsustainable Use of Online Video report reveals that the emission from digital technologies has outdone the civil aviation sector with incremental growth in energy consumption inching by 9% a year. The digital technologies sector constitutes 4% of greenhouse gas (GHG) emissions. The International Energy Agency highlights the improved energy optimisation of data centres. In 2019, one hour of video streaming emitted 36 grams of CO2, equivalent to driving a car for 100 meters. Imagine how many meters we drive daily by binge-watching one series after another!

The unsustainable rebound effects of digital carbon footprint are highlighted as follows:

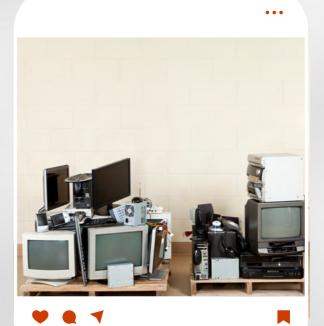
The consequences of energy emissions from 5G technology are still undergoing In 2020, international evaluation. internet traffic increased by 40 percent. The more computing/hashing power in the network, the better the security of the blockchain, which prevents it from any attacks. Hash rate and power consumption due to intensive bitcoin mining have revealed the downside of cryptocurrency. Mining of Ethereum, Bitcoin, Monero and Litecoin - the four cryptocurrencies - amounted to 3 to 15 million tonnes of carbon dioxide emissions during the assessed period from 1st January 2016 to 30th June 2018.

1 Reply

GHG emissions are not only at the enduser stage but continue throughout the operational continuum from the cloud centre via data servers to your screen. Proponents of positive multiplier effects of data efficiency owing to hyper-scaling, such as The International Energy Agency, reiterate in numerous instances that exaggerated claims to carbon footprint splashed around by major media outlets will only induce fear, and peer-reviewed scientific studies must be referred to.

What can you do? Q

- Do not watch your web series on television. Television sets are sequentially more energyintensive than laptops, tablets and mobile devices.
- Prolong the life of your mobile and laptop for a greater duration. This will reduce the overall plunder of extractivist mineral economies.
- Cautious discarding of laptops and mobile phones if their use cannot be prolonged as disposal of ewaste cannot be mishandled if carbon neutrality is to be achieved.
- Carbon dioxide emission intensity from data centres can minimised with optimum production of scale, leading to modest carbon emissions. Turning off automatic cloud backup filing downloading updates in applications can contribute to the greener usage of your smartphone. The global emissions of the IT industry are estimated to reach 14% by 2040.
- Parts of the world have taken to buying a physical copy of the music album if one listens to it repeatedly. However, streaming can be preferred if the frequency of listening to the same music is on the lower side.

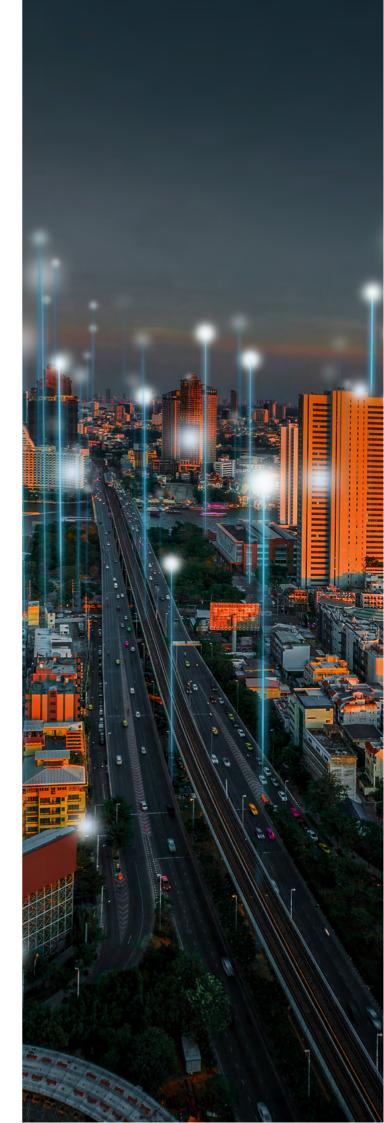


- Transition to watching videos at lower resolution, it consumes lesser bandwidth of the internet.
- Avoid multimedia messages in official e-mails. Use compression of bulky documents.
- Data localisation and processing of data are easier for deep learning applications.
- Innovation and efficient modelling will eliminate Artificial Intelligence technologies' implicit environmental and financial costs.

So which areas does technology enable a reduced carbon footprint?

Online education slashes the travel-related carbon emissions induced by educators, staff and students. Remote work reduces carbon emissions by up to 80 percent, while hybrid work mode amplifies the carbon imprint due to greater use of material resources. Let us not demonise disruptive technology but rather appreciate the growing economies of scale and efficiency in handling massive data across digital technologies when entire economic systems are transitioning.

Every time we make consumer choices, we need to be more sustainable in our modus operandi throughout the day, and you might contribute positively towards Sustainable Development Goal (SDG) 12. lifecycle continuum The approach required to tackle reducing the carbon footprint of technologies requires multisectoral synergies across value chains. This article shows how we can match up to our end of the bargain and advocates for recalling the human costs endured for every piece of electronic device we use casually.









oth men and women have enjoyed homemade beauty products for thousands of years. Around 3000 BCE, Egyptians embraced oils, donkey milk, and Dead Sea salts to retain their youth, while Europeans in the 1800s used egg yolks and honey to improve their appearance.

Using items commonly accessible in their surroundings as beauty products is not a new practice in the modern world. Making your own cosmetics at home may be incredibly rewarding for several reasons. Continue reading for 5 DIY beauty products you can easily make at home to lead a more natural life!

Why people choose DIY products

People progressively seek to limit their exposure to the typical preservatives, synthetic fragrances, harmful compounds and cheap fillers found in many commercial cosmetic products.

Making your own ensures that you ultimately control the ingredients and can cater to personal sensitivities and requirements. Akin to this, tailoring your regimen to how your body responds to your suited formulae can help to reduce waste since fewer unused products are thrown away.

Most DIY products may also be stored in reusable containers, lessening the amount of plastic waste in your home.

Making your own goods is also substantially more economical. This way you avoid paying commercial prices instead of only paying for the ingredients you use.

Also consider buying in bulk for cost savings, and using your own recycled containers which will be cheaper than buying new ones.

Sustainability and ethics are essential, but so is your health. Suppose you wish to make your own homemade products. In that case, it is advised to conduct proper research and follow conventional safety and sanitary procedures to guarantee you gain the advantages of your efforts.

5 easy recipes for DIY beauty products:

Avocado, olive oil and honey hair mask

Benefits: Rich in natural oils, biotin and omega-3 fatty acids, the avocado helps heal and hydrate dry hair and scalp. The olive oil and Manuka Honey helps retain moisture and shine.

Ingredients:

- 1 ½ Avocados
- Two tablespoons of olive oil
- Two tablespoons of honey, ideally Manuka Honey
- Three drops of essential oil of choice, Rosemary oil, are recommended

Directions:

- 1. Blend all the ingredients until smooth.
- 2. Coat the hair evenly and let it sit for an hour.
- 3. A blow dryer on low, indirect heat can help activate the ingredients.
- 4. Wash out with shampoo and conditioner.

2 Oatmeal and yoghurt face mask

Benefits: Oats contain natural exfoliating and anti-inflammatory qualities that help soothe irritations and remove dead skin cells. Additionally, oatmeal helps regulate sebum, which helps lessen acne.

Yoghurt's lactic acid and zinc content may help fade scars and blemishes. Honey helps your skin retain moisture and keeps it nourished.

Ingredients:

- One tablespoon of natural
- yoghurt
- One tablespoon of oats
- A squeeze of honey

Directions:

- 1. Grind the oatmeal using a food processor.
- Add oats and a few drops of honey to yoghurt.
 - 3. Apply the mask to your face and leave for 10-15 minutes.

3. Homemade deodorant

- Two tablespoons of beeswax pellets (use soy wax as a vegan alternative.)
- One tablespoon of arrowroot powder
- Five drops of pure vitamin E oil
- 20-40 drops of preferred essential oil blend (15 drops of lavender essential oil and 15 drops of eucalyptus oil recommended.

Directions:

- 1. Melt coconut oil, shea butter and beeswax in a glass bowl over simmering water on low heat.
- 2. Remove from heat and add remaining ingredients.
- 3. Store in an air-tight container at a cool temperature as coconut oil melts at room temperature.

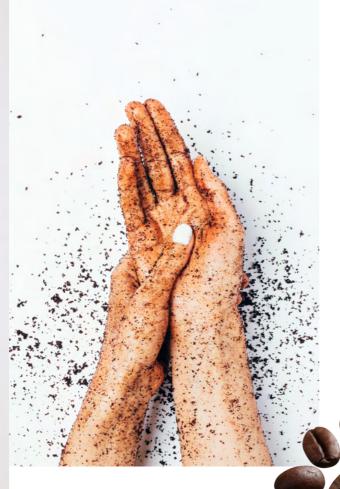
Benefits: Underarm odours can be eradicated using coconut oil's naturally antibacterial and anti-fungal characteristics. Arrowroot powder aids in further odour neutralisation and assists in absorbing perspiration and moisture from the skin.

Shea butter is fantastic for sensitive skin and is incredibly moisturising.
Antioxidant-rich vitamin E oil is used as a natural preservative. The beeswax will help you get the desired consistency and keep your deodorant solid without refrigeration.

Ingredients:

- Two tablespoons of organic coconut oil
- Two tablespoons of unrefined shea butter





Ingredients:

- 200g used, organic ground coffee
- 200g of brown sugar
- 118mL of cold-pressed sweet almond oil
- Optional ½ teaspoon of vanilla extract

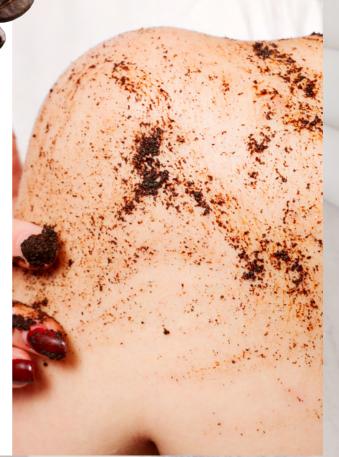
Directions:

- 1. Add the coffee grounds and sugar into almond oil and mix.
- 2. Adapt the contents to the desired exfoliation consistency.
- 3. Store in an air-tight container and use within three weeks.

Leftover coffee grounds body scrub

Benefits: Caffeine can help battle ageing and tighten skin due to its diuretic and antioxidant properties. Additionally, it is a stimulant that enhances blood flow to the skin.

The exfoliation massage can assist with dry and dead skin, stretch marks, and cellulite. Sweet almond oil is high in vitamin E that helps protect the skin from free radical damage caused by UV exposure and pollution.



5. Whipped body butter

Benefits: Shea butter is rich in antioxidants and nutrients that restore and soothes dry, damaged skin while balancing skin tone and discolourations. Jojoba Oil is widely known for its ability to deeply permeate and moisturise the skin and aid in cell regeneration.

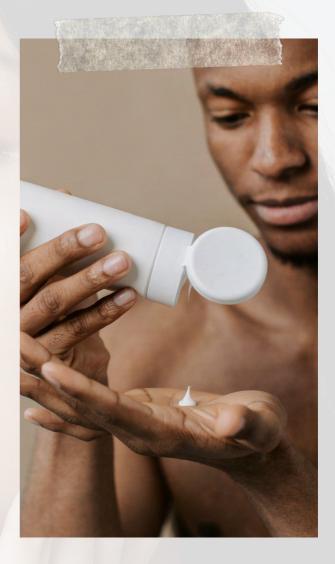
Rosehip oil has outstanding regeneration and healing capabilities. It has high concentrations of vitamin A, B, and E. Vitamin E may relieve dryness and irritation, aid wound healing and strengthen the skin barrier function.

Ingredients:

- 200g of raw, unrefined shea butter
- Three tablespoons of organic jojoba oil
- Three tablespoons of rose-hip oil
- Two teaspoons of vitamin E oil
- 20-40 drops of your preferred essential oil blend for fragrance

Directions:

- 1. Melt shea butter in a glass bowl over simmering water on low heat. Do not overheat, as it will decrease the benefits and quality of ingredients.
- 2. When the shea butter has partially melted, remove the bowl from the heat and stir to dissolve the lumps.
- 3. Add the remaining ingredients and mix.
- 4. Store in the fridge for 20-30 minutes until the mixture is creamy and not runny.
- 5. With an electric mixer, beat the mixture until it has a whipped creamlike consistency.
- 6. Transfer the whipped body butter into an air-tight container, and store it in a cool, dry place.



In summary

Those concerned about the ingredients they put on their bodies and the effects their cosmetics have on their health, and the environment may find it beneficial to learn how to make their own beauty products.

In addition to reaping the benefits from clean ingredients that are good for your body and saving money, the practice of researching, sourcing organic ingredients and creating something new for yourself is a creative, mindful and empowering activity. DIY beauty is healthy, ethical, and exciting. So why not spice up your beauty routine?





he acute rise in pollution over the last few decades has been stark, and the problems that it is causing, and will continue to cause, are reaching a critical juncture. When we envisage ocean pollution, we often picture large bodies of plastic being fished from the sea, blackened marine animals swimming in oil, or large piles of garbage that have washed up on shore.

These visuals are always a blatant reminder of just how grave the condition of the ocean has become. In this article, we'll look at a much less perceptible problem: microplastics and how the fashion industry significantly contributes to this issue. We'll then assess whether reusing ocean plastic to create clothing is really a sustainable solution for the garment industry.



How do Microplastics get into the Ocean?

According to New Security
Beat, "the plastic we can see is only part of the problem. What we do not see so easily are the microscopic [plastics]... accumulating on beaches, in intertidal zones, and even in Arctic sea ice. These are synthetic microfibers: thin pieces of plastic, a subcategory of microplastics, that resemble a strand of hair."

There are various sources of how these tiny particles enter our waters. One of the main culprits is, unfortunately, via our clothes! For fashion companies to cut costs, much of our clothes today are made from cheaper materials that come from plastic. Vox said, "Polyester, nylon, acrylic, and other synthetic fibres — all of which are forms of plastic — are now about 60 percent of the material that makes up our clothes worldwide."

Check your clothing labels in your wardrobe, and you will probably find these materials listed on the tag. When we wash our clothes, the plastic material breaks down into particles and gets rinsed into our water systems and ultimately into the ocean. A 2016 study by Plymouth University revealed that a 6 kg load of laundry containing acrylic sweaters shed over 700,000 fibres, and a load with polyester garments shed almost 500,000.

One of the main ways the fashion industry is attempting to combat this issue is to create clothes from ocean plastics. Many brands are now focused on using plastic that has been retrieved from the ocean with the specific intention of making clothes from them. But is this actually ecofriendly, or are they just trying to cover up this significant problem they contribute to?

Taking a Closer Look

The idea of using ocean plastic to produce clothes was initially met with optimism. However, as this developed, there have been several concerns raised. There has been a call for fashion brands trying to increase their recycled material production to avoid claiming that these clothing items are 'sustainable,' as it is misleading. There are a few different reasons for this.

Recycled plastics break down quicker compared to regular, or what is known as virgin materials. Clean Sailors, a non-profit organisation raising ocean conservation awareness, says, "Researchers have noticed that clothing made from recycled plastics actually shed these harmful microfibres at rates over double that of clothing made from virgin materials." One estimate says that plastic particles washed off from products such as synthetic clothes and textiles contribute to 35% of primary microplastics polluting our oceans.

Clothes made from recycled materials are often of lower quality and are therefore discarded much quicker than regular clothing, thus accelerating their fate of meeting the landfill. Much of these plastics find their way into the ocean due to poor management of the landfills. A whopping 85% of all textiles go to the dump every year! This is a major problem because plastics can only be recycled a certain number of times.

For example, plastic from PET bottles can be recycled around ten times. Clothing that is made from this material has a set lifecycle. It won't be made into apparel again as the quality of the plastic is diminished after it has been recycled one or two times. Instead, it will be transformed into another item with less durability. Once it cannot be recycled any longer, it will return to the landfill, eventually breaking down into microplastic.

Using ocean plastics for clothing does indeed halt more plastic from being produced for such items, which is a good thing. But although it is believed that purchasing clothing made from recycled materials is helping to save the planet, it is often just kicking the can down the road. There have been some huge initiatives undertaken to retrieve plastic from our waters. Unfortunately, though, much of this is undone when it is turned into clothing, as it is sent back to the ocean upon washing, and the item itself will return to the landfill. Rinse and repeat.





How We Can Be More Sustainable With Our Clothing Choices

As pointed out already, so much of modern clothing is made from materials that come from plastic, so it can be challenging to find eco-friendly options on the high street. One of the most sustainable options is to buy apparel made from linen. Linen is made from the flax plant and is minimally damaging to the environment compared to what has become conventional clothing. Linen lowers your carbon footprint and is 100% recyclable. It is also bio-degradable and therefore needs to be treated with dyes, so try your best to choose linen items that have a low environmental impact.

Bamboo and hemp are also great options! They are entirely natural and biodegradable plants. They grow at speed and do not require much water to maintain, making them a renewable and sustainable source of material. Acquiring them in their organic forms is optimal as they avoid the harmful conditioning processes and are free of plastic that would break down upon washing.

Getting the most out of your clothes and buying second-hand is also effective at minimising plastic pollution. Old clothes have been shown to shed fewer microfibers than newer items. And if you notice a hole in your t-shirt, why not try to mend it, rather than going out and purchasing a new one? You might even find a new hobby this way.



Another good option is to use a micro-filter in your washing machine. When washing clothes made from synthetic materials, these filters catch most microplastics and prevent them from entering the ocean. This again is not perfect, as you will need to discard the plastics caught by the filter. But you can seal it in a non-plastic container when you are throwing it out to minimise the chances of the microfibers in the filter being released into the environment. Different companies create these products, including PlanetCare, which is at the top of the market.



Overall, it is very difficult to avoid causing some harm to the environment with our clothing choices. The fashion industry needs to make considerable strides to achieve actual change – which means moving almost entirely away from plastic at some point. But we as the consumer can drive this as well by creating a greater demand for more eco-friendly and sustainable options, which can significantly impact the health of our planet, particularly our oceans.

















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responsible for roughly 51% of global greenhouse gas emissions, as claimed by the Worldwatch Institute, it is no surprise that forward-thinking entrepreneurs are boldly reimagining the way food is made.

Founder and CEO of Impossible Foods, Pat Brown said at Web Summit, "it's game over for the meat industry – they just don't realise it yet". Our food choices can greatly impact the environment.

The entrepreneur is confident that replacing the use of animals with food technology will come into place as soon as 2035. Impossible Foods claim that every time you choose to eat an Impossible Burger as opposed to chowing down on meat from a cow, you are using roughly 96 percent less land, 87 percent less water and 89 percent less carbon emissions.

With these statistics in mind and consumers actively seeking out ways to live more sustainably, it is enough reason to convince people to make the change to their diets.

Just a few decades ago, there was poor selection of plant-based alternatives and brands on the shelves in supermarkets. Today, there is an overwhelming surge of plant-based and vegan-friendly products. There has been steady growth in virtually all plant-based products too: chicken alternatives, red meat substitutes, sausages made from soy protein, the list goes on.

Today, many consumers are embracing plant-based foods on a regular basis, and even if they don't identify as vegan,

they are moving toward a more plantbased diet with healthier habits. Food technology is what is fuelling and meeting this demand.

Although there are some established, onthe-shelf food technology companies making waves in the space, there are others just getting started on the journey. For example, the Israeli start-up, Redefine Meat, who are working to create a meatless steak using just 3D printing.

Alongside 3D printed meatless steaks, other food technology companies are diving into Clean Meat, also known as Cellular Agriculture. The term refers to a method of creating foods that conventionally come from animals, but without using those animals. It is based on looking at the biological processes that happen on a cellular level, such as milk being made from a cow, and then replicating that process.

When speaking about meat, this can mean growing muscle cells in a tank to create clean meat, while for milk, it could be making milk proteins in an organism such as yeast by using recombinant DNA Technology.

Fermentation is an additional tech-forward critical pillar of plant-based food technology and innovation, but one that is not spoken about much. Whether you realise it or not, fermented foods are delivering plant-based alternatives that you consume today.





The State of Food Security and Nutrition in the World (SOFI) Report indicates that 2.3 billion persons globally were severely or moderately food insecure in 2021. Women suffer more significant impacts related to food insecurity.

In such times, how do we ensure the twin benefits of positive health-wise and financial effects in our household consumption of nutritious food? Bulk buying food and subsequently dehydrating them is lighter on the wallet than expenditure on processed foods.

Industry-led dehydration takes from the age-old adage of drying foods at home for preservation and prolonging of foods for longer shelf life. But what can you do to dehydrate fruits, vegetables and herbs at home?

Dehydration processes cause alteration in the chemical structuring of ingredients, thus decreasing the nutritional value of such products. A shorter drying duration will keep the nutritional value intact when coupled with low temperatures for vacuum drying or freeze drying.

Deterioration in nutrition will increase the probability of prolonged dehydration measures at high temperatures. Therefore, a natural meeting ground is to dehydrate the food at a high temperature but for a shorter time. This prevents chemical alteration of bioactive compounds-the effect of dehydration and storage on the vitamin content.



Remarkable Benefits

- Personal electric food dehydrators are more economical than oven drying and more beneficial than solar drying.
- Making dehydrated fruits and veggies at home in a food dehydrator in your kitchen eliminates the sugar and preservatives in dehydrated foods bought from the supermarket.
- USDA's Dietary Guidelines for Americans state that 1 cup of fresh fruit is equivalent to ½ cup of dried fruit.
- Home-made dehydrated foods can be portable mid-day snacks
- Pre-treatments prevent spoilage and darkening; pathogens causing foodborne illness get destroyed with pretreatments.
- Dehydrated foods, once packaged, are resilient to temperature and moisture variations.
- Dried fruits are enriched with nutrients.

- Dehydrated foods encourage healthy snacking with the bonus of high nutrition. Dried fruits bring out the exemplar taste of fructose beautifully.
- All those extra fruits and veggies in your refrigerator that are on the verge of spoilage can be dehydrated in your athome food dehydrator. This reduces cumulative loss and wastage of food.
- The bonus is that dehydrated ingredients will last you for four to ten months.
- Regular consumption of substantive amounts of dried fruits reduces risks related to cardiovascular diseases, type 2 diabetes, obesity, cancer variants, and brain dysfunction.
- Vacuum freeze drying is preferable to air drying for retaining carotene and Vitamin C.
- Vitamin loss can be prevented by undertaking optimisation of drying conditions and the application of pretreatments.
- Dried fruits can be better antioxidants than fresh fruits, such as dried plums, grapes and cranberries!

A few notes on preparing your fruits and vegetables before dehydrating:

- Air-drying spices and herbs while using all-in-one electric dehydrators for dehydrating veggies and fruits in small amounts can be done from your kitchen
- Dipping fruits and vegetables in ascorbic acid by squeezing a lemon prevents the oxidation of fruits such as apples.
- Vegetables are of lesser acidic content than fruits. Boiling water blanching is desirable prior to drying vegetables. The blanching will prevent erosion of colour pigmentation from the vegetables. Immediately after blanching, an ice water bath must be used to cool down the vegetables before drying.



Summary

There are many benefits dehydrating food. Namely, they save money and reduce food waste and time spent in the kitchen. However. the most significant benefit is dehydrating food allows us to prepare for a global food shortage, which sadly could lie ahead of Dehydrating food couldn't be more accessible at home, and you can still retain all the vitamins, minerals, and enzymes you need to lead a healthy life.



enewable energy is food for people and the planet and is the fastest-growing energy source globally. There are so many environmental

globally. There are so many environmental and economic benefits if we make the switch. To unpack this further, we caught up with Ifeoma Malo, Nigeria's Wonder Woman of Renewable Energy and our Sustainability Leader of the Year Award nominee.

Ifeoma Malo is the CEO and Co-Founder of Clean Tech Hub Nigeria, a pioneering hybrid hub for the research, development, demonstration, and incubation of clean and green ideas and technologies in Africa, as well as their validation for commercial-stage development.

Ifeoma is also an organisational management expert with more than 25 years of experience building and directing organisational policy and strategy in energy and large-scale utility markets, public health, biotechnology, leadership, change management, and infrastructure finance. She explains: "my focus lies with global policy project design and strategy and stakeholder partnership initiatives."

Expanding on her professional portfolio, Ifeoma says: "I am a Caux Scholar, African Leadership PIA Fellow, Desmond Tutu Fellow, Crans Montana New Leaders Fellow, Eisenhower Fellow, and a member of the Global Leadership Academy - We Africa network."

Ifeoma is also a Commonwealth Leaders Scholar at CSC Leaders and a member of different boards, including Green Peace International, Access to Energy Institute (AE2I), Extractive 360, and Norrenberger Financial Services. Ifeoma has an interested and exciting career background which saw her emerge into the clean energy industry in 2013.

She speaks about her emergence into this industry in more depth: "I began working in the electricity sector as a Senior Technical Adviser to the office of the Minister of Power. In 2017, I became the Country Director of Power For All (P4AII), where I led the Nigerian campaign to promote distributed renewable energy in Nigeria as one of the country's leading energy access experts."





In addition, Ifeoma assisted in setting up and incubating the Renewable Energy Association of Nigeria (REAN). Her time at Power For All ultimately led to her founding her current business, Clean Tech Hub Nigeria. The hub was founded in 2016 and is situated in Abuja, with virtual hubs spread across the country.

Clean Tech Hub is Nigeria's premier and pioneer energy innovation centre and an early start-up incubator for innovations and inventions in clean energy. It is a consultancy for sustainability and energy efficiency solutions and a driver of clean energy and climate-smart investments in Africa.

Their goal is to drive energy access in Africa through novelty in clean energy technologies, research in sustainable energy development and the development of energy access models which can be adopted in various African countries. Ultimately, they hope to grow the next generation of African climate-energy leaders.

Speaking on why it is vital we should switch to renewable energy, Ifeoma says: "Renewable energy has the ability to reach the underserved and unserved. Especially for a nation like Nigeria, with high inefficiency in power generation and distribution, there is a need to switch to other reliable energy sources like renewable energy."

Talking about what led to her starting up her current business, Ifeoma says: "One of the remarkable events that occurred which led to the birth of the Clean Technology Hub was the kidnapping of the Chibok girls in Borno State, a crisis that was partly due to the lack of electricity in that community."

She explains: "The kidnap was made easier because the community was in darkness and without basic electricity. It is difficult to actually get the national grid to these communities, but renewable energy is an easier way to get electricity into communities like Chibok. We can use mini-grids or micro grids to get electricity across to these schools and health centres."

"Also, when we look at the aspect of climate change and its adverse effect on Africa; it is clear that transition to renewable energy will help a great deal to mitigate the effects of climate change, as well as improve human health and the environment by decreasing water and air pollution, and ultimately provide jobs and enable greater economic development."

Through her time in the clean energy sector, Ifeoma has learned much about clean energy technologies. Still, her interest lies in solar energy technologies, which convert sunlight into electricity through photovoltaic panels. She shares some examples: "Mini-Grids and microgrids, which are a set of small scale electricity generators with panels interconnected to a distribution network that supplies electricity to small residential consumers, universities, factors, etc."

She adds: "Another such technology is the Stand Alone Systems (SAS), which are electrical systems with photovoltaic panels that produce electrical power to charge banks or batteries during the day for use mostly at night. They are ideal for remote rural areas. Lastly, the Solar Home Systems (SHS) are stand-alone photovoltaic systems that offer a cost-effective mode of supplying amenity power of lighting and appliances to off-grid households."



Ifeoma touches on a genuine global issue: people not having access to electricity. She shares that hundreds of millions of people worldwide lack access, most of them in the least developed countries. According to The Energy Progress Report 2022, 92 million individuals, around 43% of the total population in Nigeria, lack access to electricity, with the majority of them living or residing in the rural or per-urban areas of the country. This reveals the wide gap that exists between the rural and urban areas.

Speaking on this, she says: "Given the statistics, it is important to find ways to bridge this gap, knowing the importance electricity plays in everyday life. I always make reference to the Chibok girls' tragedy that occurred in 2014, which was largely due to the lack of electricity. This is something that drives me and my team to consistently push for energy access in last mile communities until it becomes the norm."

Ifeoma urges that to bridge this, we must enable more entrepreneurs and companies in the clean energy and climate change sector. This is why she is committed to bringing on board 100 new entrepreneurs each year through her organisation's enterprise development programme. She also plans through her street business school to help 250 micro businesses each year to scale their enterprise by teaching them to optimise clean businesses.

On that note, Ifeoma says: "By bridging this gap, we open up the country to rapid industrialisation, sustainable economic growth, an increase in non-agricultural income, and an improvement in the standard of living, thereby reducing unemployment and poverty rates."

Ifeoma and her team are driven to provide an inclusive and equitable future for all, primarily through energy access. However, she is also committed to raising awareness of the message that issues around climate change affect everything from food and agriculture, families and education, health, employment, and more.

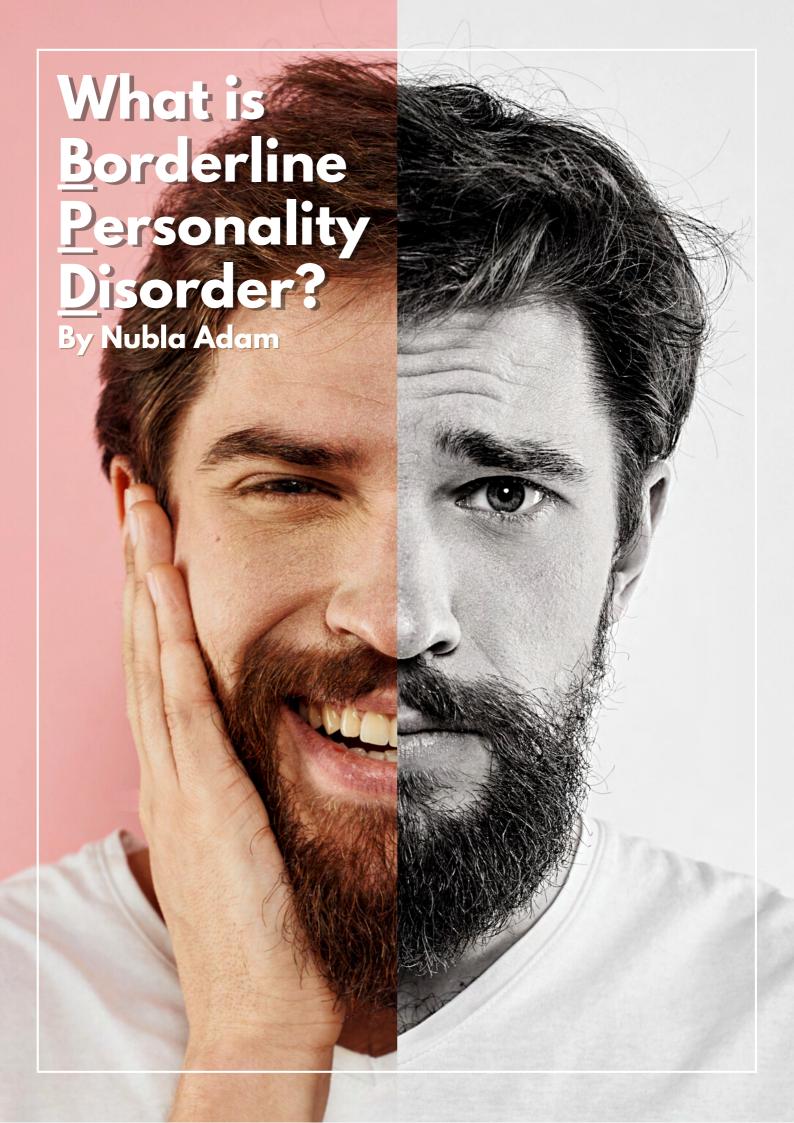
Therefore, she feels there is a need for more sustained funding and investments to continue to scale for clean energy for climate change to be eradicated. In addition, that this will help us build more sustainably in these sectors worldwide. She finishes by saying: "Africa has a growing and youthful population, and there is the need to harness the energy and influence of young people as change-makers to continue to drive and innovate around climate change and clean energy access on this continent."



"A lot of work needs to be done, especially in achieving the vision for universal energy access and rural electrification across Africa."

- Ifeoma Malo





our personality makes you who you are. A person's personality is defined as the distinctive pattern of how they engage with others and the world around them.

Our personalities can adapt depending on genetic inheritance, the social and environmental context in which we are raised, and the kind of care we receive. However, elements of people's personalities can evolve in ways that make living with themselves and/or other people more challenging.

When a person develops an unhealthy, rigid, long-term connection to, perception of, and interaction with their environment and others in such a way that it causes distress or restricts social functioning, that person may have a personality disorder.

Numerous officially recognised disorders fall within the category of personality disorders, with one of the most frequently diagnosed disorders being Borderline Personality Disorder (BPD).

People with BPD and causes

Individuals with BPD have a characterised pattern of instability with regulating or managing their emotions, controlling their impulses and regulating self-image. Due to their extreme sensitivity to their environment, they may react strongly to even little changes in their surroundings.

BPD indications and symptoms can first surface during adolescence. In this stage of development, children are expected to practise autonomous emotion management using control tactics, so inadequacies in self-regulation become more apparent during this age bracket.

The affliction worsens during adolescence but may gradually improve with time and maturity. As a result, BPD is frequently diagnosed in adults rather than adolescents or teenagers. Although the causes of BPD are unknown, traumatic childhood experiences and inherited genetic variables may play a role in the emergence of the disorder.

Low socioeconomic status, family adversity, parental psychopathology, exposure to physical and/or sexual abuse, and other external variables may be environmental risk factors from childhood to young adulthood. Research may also indicate a connection between BPD and issues with brain development.

Using MRI scans, researchers discovered that the amygdala, hippocampus, or orbitofrontal cortex in individuals diagnosed with BPD were either smaller than predicted or had unusually high degrees of activity.

Near the base of the brain, there is a group of cells known as the amygdala. These cells regulate emotions, particularly unpleasant ones such as anger and anxiety. A part of the brain called the hippocampus is buried deep within the temporal lobe. This part governs disposition and self-control. Meanwhile, the orbitofrontal cortex, which sits at the front of the brain, is involved in analysis and decision-making.

According to researchers, these brain regions are altered during early upbringing, which may be a factor in the development of BPD symptoms. While there is currently no evidence to indicate a gene for BPD, it is thought that genes inherited from parents may predispose and make one susceptible to developing the disorder.

Signs and symptoms

While the symptoms of BPD vary from person to person, at least five of these diagnostic signs and symptoms must be exhibited throughout time. These include:

- A pattern of severe mood dysregulation that lasts hours or, sometimes, more than a few days.
- Difficulty controlling emotions, especially inappropriate aggression, irrational sadness, anxiety, and euphoria.
- Impulsivity and making rash, selfdestructive judgements.
- Irrational fear of real or imagined abandonment, rejection and failure.
- Depersonalisation from oneself or disassociating from one's surroundings.
- Disturbed sense of identity and selfcondemnation.
- Identity disturbances such as sudden fluctuations in goals, morals and aspirations.
- A persisting sense of emptiness, hopelessness and/or isolation.
- Recurrent self-harming or selfmutilating behaviour and/or suicidal ideation.
- Instability in interpersonal relationships characterised by a tendency of alternating between extreme idealisation and devaluation.

BPD frequently co-occurs with other mental disorders, and it can be challenging to diagnose since the symptoms of both conditions might sometimes be present. Those diagnosed with BPD are often more likely to suffer from severe depression, anxiety disorders, PTSD, substance abuse and/or eating disorders.



What Treatments Are Available For People With BPD?

Patients with BPD can mitigate symptoms of this illness, increase their interpersonal functioning and have a better quality of life thanks to modern, evidence-based therapies.

The most effective treatment for BPD is psychotherapy, which aims to help patients understand and control their thoughts and feelings via the guidance of a qualified professional. While there is presently no recognised medication for BPD, medication to resolve the symptoms of co-occurring disorders such as anxiety and depression are available.

The most effective forms of psychotherapy are:

Dialectical Behaviour Therapy (DBT)

The most extensively researched and most effective BPD therapy is DBT. Specifically formulated for those with BPD, DBT trains patients to control their intense emotions, reduce destructive habits and improve interpersonal relationships by practising mindfulness and awareness techniques.

Cognitive Behavioural Therapy (CBT)

CBT's central practice is to uncover thoughts and feelings that contribute to risky and damaging behaviour. This therapy technique promotes increasing one's sense of self-value and self-esteem. CBT has shown to be effective in reducing self-harm and suicidal ideation within months of therapy.

In conclusion

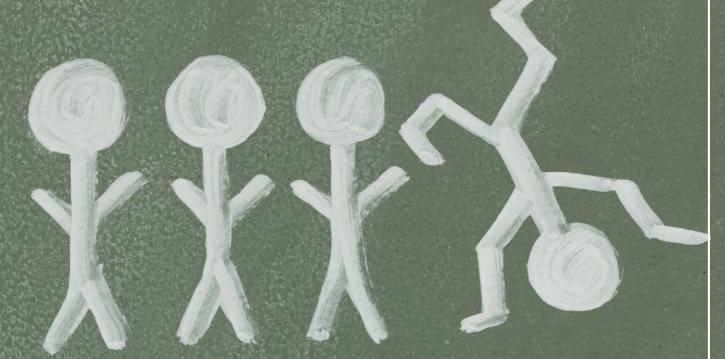
Patients with BPD struggle with selfregulation and experience intense emotions, making it more challenging to recover from adversity and return to a stabilised baseline, resulting in recklessness and unstable relationships within themselves and others.

It takes time for individuals to learn how to control their emotions, thoughts, and behaviours; some BPD symptoms may never disappear. Patients with BPD have the highest potential to improve their social function and self-esteem when receiving medical treatment from a trained specialist.

It is critical to keep in mind that BPD is a chronic mental health condition; receiving professional help as early as possible helps lessen the impact on day-to-day functioning.

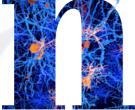


Neurodiversity:



A Different Way of Thinking

By Jennifer Damian



eurological variations are a crucial and indispensable part of humanity. People with divergent thinking processes can collaborate

on multiple ideas and interact with each other. This can occur in different situations, such as school, work, the community, businesses, and within a personal set of friends or acquaintances.

In our current society, within various contexts, we have observed the movement of using the terms "neurotypical" – which means mainstream or standard way of thinking – and "neurodiversity" – which is the out-of-the-box thinking. To understand the concept of neurodiversity in our world, it is crucial to understand the social model of disability and how neurodiversity fits into this concept.

The idea of the social model of disability identifies the challenges and barriers found in our society, opposing views, and social restrictions on persons with an identified difference in functioning, which make it difficult or impossible for differently-abled people to exist and function in mainstream society.

Neurodiversity is a newer term coined in the late 1990s by sociologist Judy Singer, who described this idea as differences and variations in the human brain and ways of thinking. The word was created to assist in shifting how mainstream society thinks about people who have a difference in thinking or doing in different areas of life in our world. Areas include learning styles, attention, social skill acquisition, and other mental functions

Many neurodiverse people are diagnosed with terms that might be classified as medical disabilities, developmental disabilities, mental health conditions, or processing disorders. Such terms might

include Autism Spectrum Disorder Syndrome (ASD), Attention /Aspergers Deficit Disorder/ Attention Deficit Hyperactivity Disorder (ADD/ADHD), Obsessive Compulsive Disorder (OCD), (SPD), Sensory Processing Disorder Dyspraxia, and Dyscalculia.

These words don't define the person but allow those who might be associated with these mainstream medical and developmental terms to investigate their own neurodivergence when encountering others who have these similar conditions and more so when amongst those who are of mainstream neurotypical circles.

Neurodiversity is the idea that brain differences are a standard range of thinking and existing rather than a range of deficits. Because neurodiverse people experience and interact with the world in ways different from mainstream "neurotypical" persons, the challenge for them is having to deal with stigma for being other thinkers. Thus, this concept of neurodiversity can help reduce the stigma around learning and thinking differences.

In educational settings, more work has been done to create awareness in our youth and the educational and administrative staff for recognition of neurodiversity. Whilst academic and social or behavioural supports might exist to assist students in accessing their educational environment, greater awareness of nontraditional and creative thinking helps to stop any "outcasting" (inadvertently or purposefully) that has typically been found in these places.

Children, teens, and emerging adults in this scenario now have more breathing space to learn and access their environment naturally and without judgement. Promoting this idea acceptance of different manners of mindsets is vital to pave the way for the other generations to understand how neurodivergent persons fit in with others and also pave the way for employment, internships, advanced volunteer work, and community situations as they become older.

In the community and businesses, people with neurodiversity add colour and fresh ideas to a meeting with other colleagues. In a world where those who are neurotypical have ordinarily driven the system, neurodiverse people who think in different ways help to bring older systems to a newer level.

Neurodiverse persons see patterns in conversations, and in actions others have, taking charge of identifying these patterns and coming up with strategies or notions that open up avenues to newer ideas. The difficulties that occur with old ways of doing things suddenly break open into new meaningful opportunities that allow everyone to make changes for a better,

easier way of doing a task, all due to this unique insight.

This awareness and acceptance of the various ways of perceiving and acting in our world pull in everyone from both neurotypical and neurodiverse populations in a way that leads to the continual sharing of information and experiences daily. Our increased ability to understand the many scenarios that each person experiences help broaden our daily experiences and work in a ying yang fashion.

When we shift focus from the terms used to focus on what a disability or medical condition might represent, such as an inability to execute a task or be nonconformist in our understanding of a setting, we move away from having inequality existing. Instead, we focus on what a person can do and achieve. Neurodiversity then becomes the idea of respecting everyone for what can be achieved and all manners of existing whilst recognising the nomenclature for various abilities and medical conditions and offering assistive support accommodations to access their working environment.



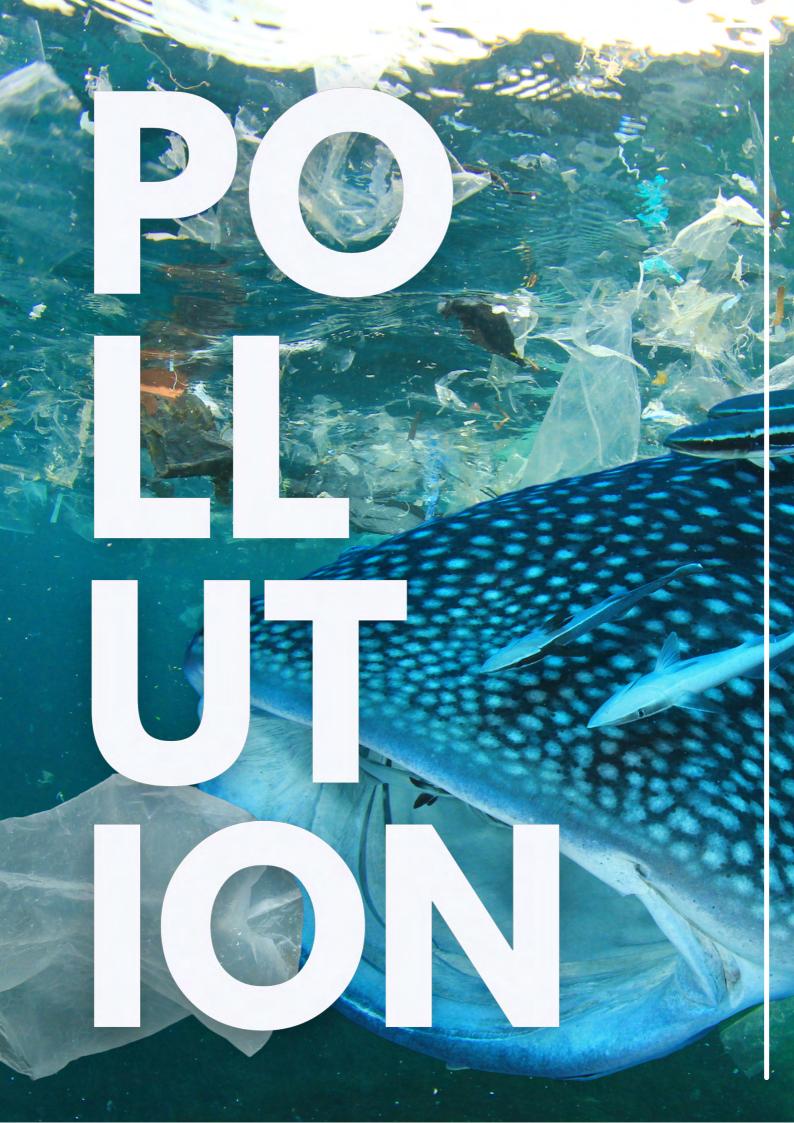
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CHILLOPET

FOR OVER 20 YEARS THE CHANCE 4 CHILDREN TEAM HAS BEEN LENDING A HELPING HAND TO HOSPITALISED, INSTITUTIONALISED AND SOCIALLY DISADVANTAGED CHILDREN IN CENTRAL EUROPE. OUR MOTTO NEVER CHANGED:

EVERY CHILD DESERVES A CHANCE!









hile eight million metric tons of plastic pollution enter the ocean annually, it's estimated that six to fourteen thousand tons of sunscreen are also entering our oceans each year.

The first you can see, the latter (known as "swimmer pollution") you can't really see and this makes it even more dangerous. These days most people are coming to understand just how dangerous plastic pollution is to the ocean due to increased education through social media channels. But there isn't much awareness out there regarding the damaging effects that lotions inflict on sunscreen our marine sensitive animals and ecosystems.

While we have all been taught to use sunscreen as a way to protect ourselves from skin cancer, we are only starting to understand how harmful the chemicals contained in these products are to the oceans.

Skin cancer is the most common type of cancer. About 2,000 people die from basal cell and squamous cell skin cancer each year and older folks with suppressed immune systems have a higher risk of dying from these types of skin cancer, according to cancer.net.

Effects of sunscreen chemicals in our oceans

The average sunscreen product contains many harmful chemicals, many of which include synthetic organic molecules exactly like those used to make plastic. These molecules do not break down. Instead, they wash off your body once you enter the water and penetrate marine ecosystems, causing havoc and destruction.

Harmful chemicals in sunscreen include Oxybenzone, a common chemical that protects our skin from UV light. Once in the ocean, however, this particular chemical damages the DNA structures of coral reefs and their entire reproduction processes. This, in turn, causes bleaching, deformities, and growth anomalies in the coral. Coral reefs don't just benefit the ocean, but healthy coral reefs provide billions of dollars in economic and environmental services, such as food, tourism, and coastal protection. The most vulnerable coral reefs under threat from these sunscreen chemicals include fringing reefs that are critical for protecting coastal regions from erosion. Not only that, but dangerous chemicals in sunscreens actually prevent the recovery and restoration of reefs that have already been damaged, creating a vicious cycle of degradation degradation.



Effects of sunscreen chemicals in humans

Research has shown that the damage Oxybenzone causes is even more farreaching, creating gender shifts in fish that cause female fish to produce fewer eggs. If this chemical can affect reproduction in marine animals, imagine the effects on humans. Recent studies have shown that human females with higher concentrations of the chemical in their bodies had a much harder time falling pregnant, while the high concentration in males caused diseased sperm.

Effects of sunscreen chemicals in algae

Oxybenzone doesn't only destroy certain coral reefs, it also impairs algae growth and photosynthesis, while harming other marine life in the process.

Algae contribute to a healthier ocean since they use up the carbon dioxide from the atmosphere, and then release oxygen back. Algae also maintain a highly symbiotic relationship with various ocean organisms including sea sponges. Since the algae live near the sponges' surface, they actually metabolise and produce sugar and oxygen that the sponges need for their very survival. The sponges, in turn, help to protect the algae from their natural predators in the ocean.

Krill feed primarily on algae. Krill are shrimp-like organisms that are fodder to many marine animals including whales, seals, and penguins.

The ocean is an ever-changing watery world filled with marine plants of every kind that are subjected to ocean currents and environmental conditions.

At times certain environmental conditions can cause cold, denser water to sink to the bottom of the ocean, thereby causing other waters to rise in replacement. When this happens you get algal blooms. When there are more algae, there are more compounds produced for organisms such as oysters, mussels, and ultimately, humans. But algae blooms can also be harmful to marine life since a proliferation of surface floating algae can diminish the sunlight reaching marine plants causing dead zones.

While algae blooms can be very problematic, certain algae are very necessary for the maintenance of ecosystems.

Regulatory agencies

There are many regulatory agencies monitoring the damage that chemicals have on our health. Including the European Chemical Agency which lists many chemicals most commonly used in sunscreen products in Europe. The list is called the Community Rolling Action Plan (CoRAP) and includes ingredients like Formaldehyde, Carbon Tetrachloride, and Methanol. Due to their potential threat to the environment and our personal health, this list has raised the ultimate possibility of a ban.

In Hawaii, for example, bans on certain sunscreen product ingredients have already been implemented to safeguard coral reefs in certain coral hotspots.

Harmful chemicals in sunscreens

Another common ingredient in sunscreens is the preservative paraben that inhibits fungal and bacterial growth. Lower concentrations of this preservative can act as endocrine and pheromone disruptors. Higher concentrations can be acutely toxic to invertebrates.

According to savethereef.org you should avoid sunscreens containing these harmful chemicals:

- Oxybenzone
- Octinoxate
- Octocrylene
- Homosalate
- 4-methylbenzylidene camphor
- PABA
- Parabens
- Triclosan
- Any nanoparticles or "nano-sized" zinc or titanium (if it doesn't explicitly say "micro-sized" or "non-nano" and it can rub in, it's probably nano-sized)
- Any form of microplastic, such as "exfoliating beads"



Looking to the oceans for a solution to improve sunscreens

Just because your sunscreen might be labelled "organic" or have an "organic certification" doesn't mean it's safe for the environment. Several plant-based oils can also damage marine life. Take for example 3 common essential oils like neem, eucalyptus, and lavender that are present in some organic sunscreens. These oils act like insect repellants suggesting they are relatively toxic for invertebrates (crabs, squid, lobster, coral, etc).

Sunscreen is vital in protecting us from skin cancer and UVR damage. But what are the alternatives to commercial sunscreens that are damaging our marine life?

We can actually look to the oceans for protection against UV rays and sun damage. Many marine species who are exposed to the sun on a continual basis have effectively evolved to protect themselves from UVR damage. The way this works is fascinating.

Algae, for example, produces MAA (mycosporine-like amino acids) which act as natural UVR filters. These amino acids then make their way up the food chain. Once they reach coral and other marine life they are essentially stored in the very tissues exposed to UVR like skin, eyes, and eggs. MAA then absorbs the UVR and converts it to light and heat which isn't broken down by the radiation. Scientists are only beginning to explore the potential that these compounds can have in the production of ocean-friendly sunscreens.

Reef-Safe Sunscreen

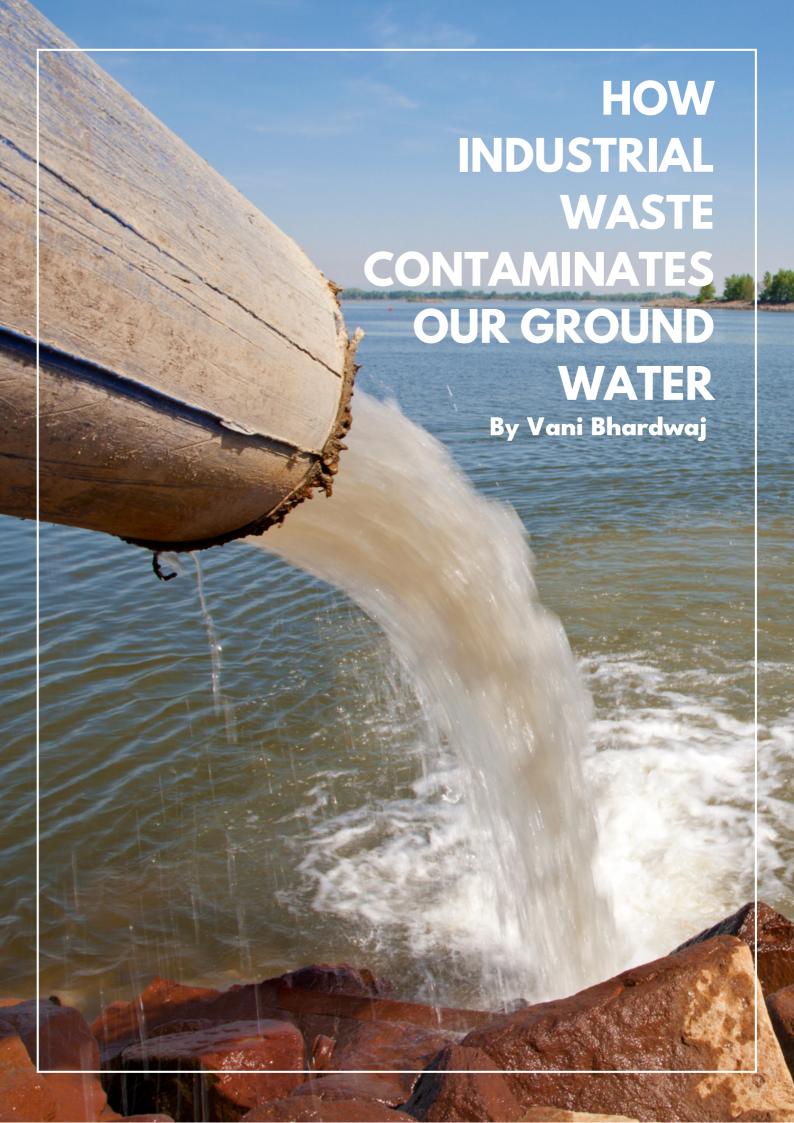
So, before heading out to enjoy the beach this summer, grab a reef-safe sunscreen. This typically means that the sunscreen

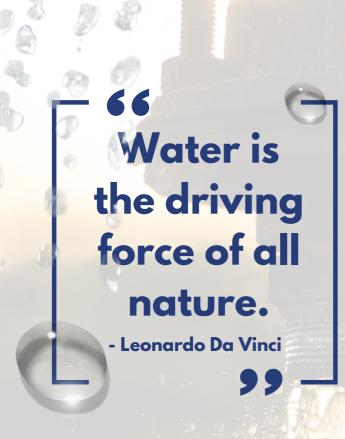


contains only mineral UV-blocking ingredients like oxide and titanium dioxide. Be aware that the label "Reef Friendly" isn't regulated. Meaning that some products that contain this label don't necessarily mean what they imply.

Check out this list of reef-friendly sunscreen products at Save the Reef (they also list the sunscreen products that are harmful to reefs). Be the exception on the beach this summer. Our marine life depends on humans educating themselves about the damaging effects of the chemicals we put on our skins

*First published on the <u>Ranmarine website</u>. Visit their website for details of their Wastesharks that clean harbours and ports.





The United Nations World Water Development Report 2022, with its theme' Groundwater: Making the Invisible Visible', reports that approximately 4 billion people reside in areas undergoing severe physical water scarcity for a month at a minimum per annum.

The same report found that 30 m2 of water per ton of steel is required for steel and metal smelters, while processing a 1-metre cube of crude oil requires 1.5 m3 of water. Unmistakably, interlinkages between water stress leading to water scarcity and poor groundwater governance are associated with industrial groundwater consumption.

Fractured rocks, surface-related macropores and permeable soils make the perfect conditions for contaminants to travel along with groundwater flow, thereby adding to the toxins in the underground aquifers. Detection of

pollutants is relatively tricky as groundwater movement is usually slow. Therefore, any signs of contamination will take time to reveal themselves.

Groundwater serves numerous industry purposes, namely: manufacturing, diluting, processing, washing, smelting facilities, transporting and cooling of products. Copious amounts of groundwater get utilised in the paper and textile industry. Mazharul Kiron, founder and editor of Textile Learning, substantiates how 1 kg of cotton fabric production requires 250-350 litres of water. Contamination of groundwater occurs due to the salts used during the textiles' processing.

Embalming fluids and dry-cleaning fluids need to be highlighted for their contamination of groundwater supplies. Dry cleaning fluids have contaminated almost all areas of the United States. Tetrachloroethylene is a suspected carcinogenic found in higher levels than the permissible limit in the USA. As embalming fluids constitute carcinogens, water wells situated in cemeteries get polluted.



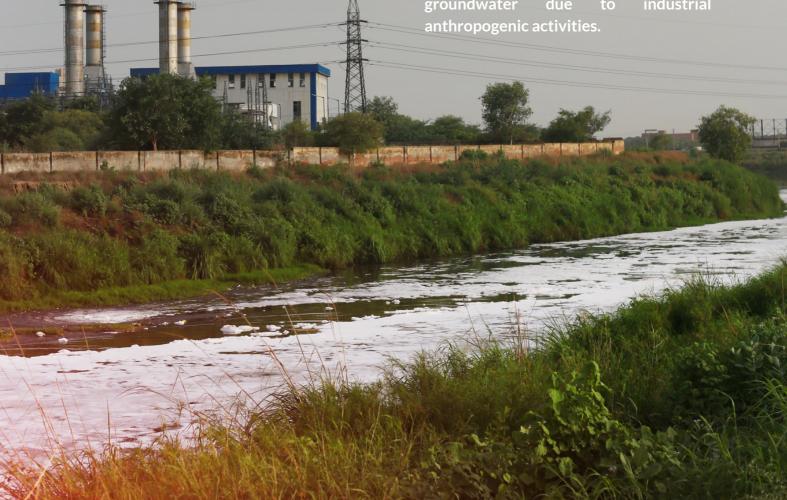
Leaching and soil contamination in legacy mines and out-of-use industrial dumpsites harm public health. Drainage of mines results in seepage of aluminium. Antimony produced in ceramics and glass production decreases longevity. Arsenic, Cadmium, and Copper result in severe intestinal, liver and kidney damage. Beryllium used in space, electronics, and the nuclear industry is a possible carcinogen.

The plastics, paints and dyeing industry contaminate groundwater with volatile organic compounds that can amount to blurred vision, anaemia, loss of proper use of the nervous system and liver and cancer on an inter-generational basis. According to the Carbon Disclosure Project, as recent as 2020, the significance of groundwater usage was revealed by 72% of the disclosing beverage companies.

Deep excavations required for underground construction for tunnelling, basements, parking lots and mining present the challenge of temporal or permanent dewatering. Dewatering affects slope stability, thus creating potential hazards for overpopulated urban areas.

Mishandling and disposal of hazardous waste, oil and petroleum-related spills, besides spillage of chemical toxins, lead to groundwater contamination. Marine oil spills and disposal of industrial effluents increase nutrients within the oceans leading to the proliferation of harmful algal blooms.

The Submarine Groundwater Discharge (SGD) transports these excessive nutrients to coastline situated aquifers and surface water sources. This completes the cycle of land to ocean and marine to land contamination of groundwater due to industrial anthropogenic activities.



Remedial Measures

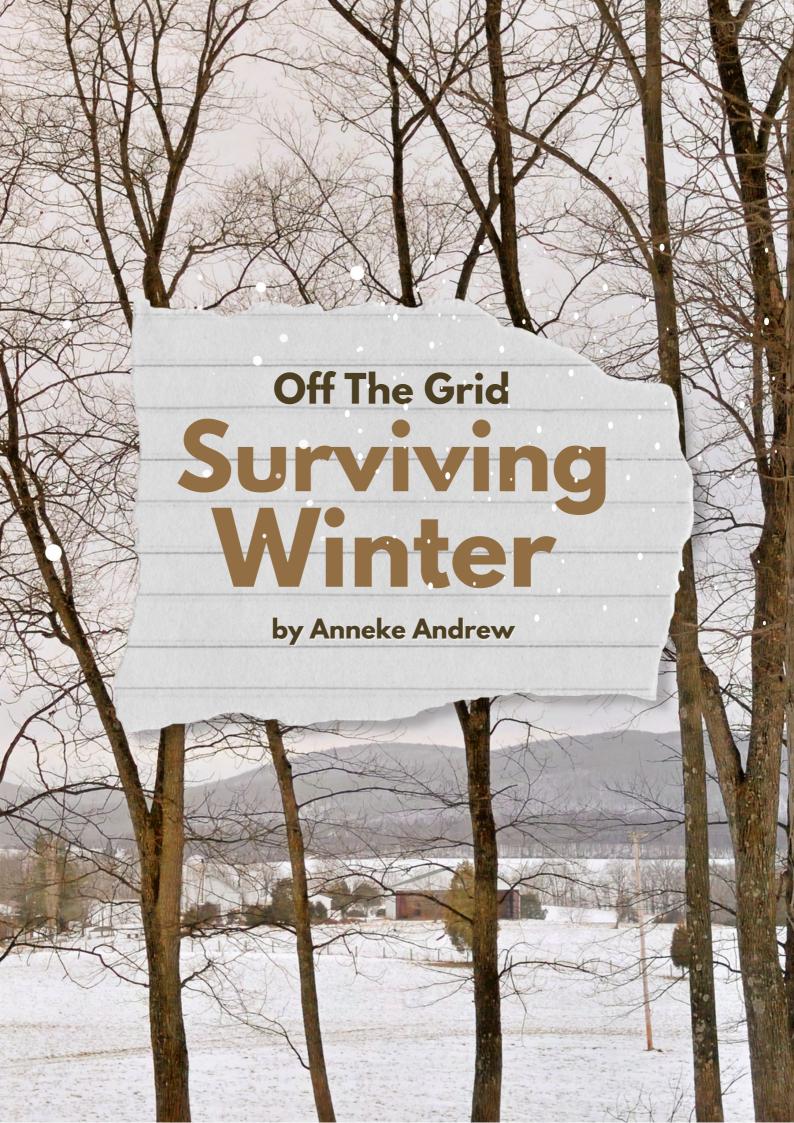
- Poor quality of surface water leads to further exploitation of groundwater. Thus, synergising the protection of surface water sources with underground aquifers is desirable.
- Resource Efficient and Cleaner Production (RECP) and designing of Eco-Industrial Parks can be used to minimise negative feedback loops regarding groundwater contamination.
- Sustainable Procurement embedded in the circular economy business ecosystem will enhance water-use efficacy.
- Though desirable, treatment of polluted groundwater through groundwater remediation techniques has high operational costs.

What is unseen to the eye is equally important to our everyday living, as recognised by Sustainable Development Goals 14 and 15. Conscious capitalism by circular economy enterprises along the value chain will resolve the issue of contamination of groundwater due to the industrial sector.

Next time you use any industrial goods, retrace the backend linkages that could have added to the pollution of our natural aquifers. The plethora of harmful elements from the periodic table can be ingested by you and water resources. Now, that will make you pause and reconsider the sustainability of value chains!









summer. We will first use plastic bottles to build a space and fill it up with soil, and then vertical gardening is also on our list of things to do!

The chimney was erected by hubby dearest, and what a pleasure to use the coal stove in our kitchen. It's not only great to cook on but gives lovely heat as well. After slowly clearing the back of the outside studio, we found loads of broken tiles, so we tried our hand at mosaic to brighten up our house and recycle. It's a lovely project, but please use gloves; cement is harsh on fingers!

Our 8 African hens have sadly left the farm. We decided to sell them to one of the locals.

We will keep in touch with him to see if he is luckier than us with getting eggs from the hens. Now, we only

his is our 3rd winter on the farm.
Did we improve over the last two years?
Sometimes you don't realise the hard
work you have put in, but I keep a diary and
take lots of photos and videos. From that, I
realise we are doing a good job!

Our greenhouse is one thing I'm pretty proud of; a year ago, we only had a couple of plants in pots in sunny spots in the house. This year I have gooseberry plants, rocket, thyme, chillies, peppers, basil, lemon trees, lettuce, garlic, and spring onion. I'm even trying to grow some succulents to plant around the house.

The greenhouse is a great therapist with an earthy smell. We also plan to use a part of the new, more extensive veggie garden in



have the eight white silkys. We all know they are way too motherly to leave us any eggs. Although they are more pets than anything, they are still good cleaners around the house and always make a noise if there is any movement on the farm.

Hubby started a beautiful rustic fence. Due to the extremely open farm, we desperately need a fence to break the wind. We want to combine the fence with hanging plants and even Spekplant (Elephant Bush) to add to the rustic feel. Spekplant is ingenious to the Eastern Cape Province (South Africa) and has lots of benefits.

It helps to fight climate change and air pollution. You can eat the leaves, too; they are delicious in a tossed salad or stew and high in Vitamin C. It's also got medicinal values; put some of the leave juice on blisters, or chew a couple of leaves for a sore throat or mouth infection. It's an antiseptic ideal for pimples, rashes, insect bites and sunburn.

So far, we have only had two days without solar. Although overcast, we luckily get lovely sun later in the day to compensate for it.

Luckily our winters are pretty mild, but we hardly get any rain.

Meanwhile, our beautiful country is stressed under Stage 6 load shedding, which is an interruption of an electricity supply to avoid excessive load on the generating plant.

Our Crown Prince pumpkin that was rescued from the hail storm made a delicious pumpkin soup. Nothing fancy, just some fresh herbs from the garden, lovely cinnamon and a chilly for extra heat. Stevie (our bling silky rooster) is doing very well. His brother Monday was bullied by the brown hens, and he lost some weight. We also decided to give him his own space to fatten up and have peace.

Due to less gardening in the winter, we focus mainly on getting the greenhouse summer ready and doing lots more green art from recycled materials. Getting busy with small tables or stools made from 2-litre bottles; is a work in progress. I will keep you up to date. We hope for happy growing, not only for our precious plants but also for growing as people.





Working in sustainability and leading an eco-conscious lifestyle, I regularly talk with others about the importance of going green. While most people are pretty keen to make sustainable changes, some are not so much.

I find I constantly get one big response from people, and they claim it is a significant barrier to them adopting a more planet-friendly lifestyle. That is that going green comes at a premium. Yes, people often say to me: "I want to become more sustainable, but it is so expensive."

When I am met with these responses, I entirely understand where they are coming from. However, I do find myself sitting down often and pondering whether going green really is a premium or have brands and marketing just made us believe it is.

I suppose it depends on your own definition of sustainability. When I started to alter my lifestyle to suit the planet's needs, my strategy focused on reducing my consumption. I think this is where a lot of the confusion comes from and why, when so many think of sustainability, dollar signs go off in their brains.

Fashion was my entry point into the world of sustainability. Initially, like many, I scoured the web for answers to my burning question: how do I shop for clothing that has minimal impact on the Earth while not burning a hole in my pocket? After all, I was a college student and similar to most in that age group, I had grown accustomed to high street prices.

I wasn't exactly earning enough to spend 100 euros on a pair of hemp jeans. Granted, they would probably last and stay intact for the rest of my life. Despite this, they were still very much out of reach! Luckily, there was a solution, one that allowed me to engage in the circular economy and still get a bit of thrill when I found an absolute gem.





That was charity shopping, and it enabled me to be individual and run away from trends. Secondhand clothing allowed me to nab outfits for as little as 8 euros, and while getting a great deal, I was also giving back to some great causes that are working to make the world a better place.

Once I figured out how to shop for clothes sustainably at an affordable rate, I set my sight on other eco-conscious actions. Similarly, I also was trying to do it without breaking the bank. When it came to food, I bought loose fruit and vegetables, which seemed to be cheaper. I also sought to minimise my food waste by planning my meals for the week before doing my grocery shopping.

I started DIY-ing my own cleaning products; vinegar and baking soda quickly became my new best friends! I switched to reusable cotton pads, cotton buds, shampoo, and conditioner bars in the bathroom. My skincare and haircare routine was already relatively minimal, and I had always used quite natural products since I swore allegiance to cruelty-free when I popped out of the womb.

These are just some examples of how I adjusted my lifestyle to be more considerate of people, animals, and the planet. My main point here is not to share every single action I take but more so to debunk the massive myth that going green comes at a premium. A planet-friendly lifestyle does not come at a higher cost, and those who think it does are probably, I hate to say it, but missing the point.

Adopting an environmentally-friendly lifestyle is not about discarding your high street wardrobe and buying an entirely new sustainable wardrobe. It isn't about dumping all your bathroom and kitchen products and visiting the local zero waste store to replenish your stock.

When we talk about eco-conscious living, our primary strategy should be reducing our consumption at all costs. This means treasuring what we have and mending and repairing what we need. Similarly, using up our products before we go out and buy eco-friendly alternatives.

There are times when it is out of our control. Due to planned obsolescence, we sometimes have to buy a new phone or laptop. However, in everyday life, most of the time, we can curb our consumption, and this is the best practice for us to achieve a thriving, sustainable planet. Going green does not have to break the bank; you can tailor your impact to suit your budget.







You might want to get away this summer but are concerned about the environmental impact of your vacation. Well, you're not alone. Over 70% of travellers believe in the importance of sustainable travel.

Fortunately, this increase in demand is being met by some of the most ecoconscious countries. Whether you're an adventure holiday enthusiast or all about relaxation, there are plenty of options.

Continue reading as we share the top 5 sustainable European vacation spots so you can start planning your next trip!

Leading the charge in sustainable development as recognised by the UN, Finland is an ideal sustainable vacation spot. Their dedication to sustainable living and culturally ingrained respect for nature means you can enjoy stunning landscapes and locally sourced food.

In the North of Finland, you can discover endangered wildlife such as brown bears. Cultural and wildlife tours are an essential and educational source of eco-tourism, which teaches visitors about the local area and environment.

The best way to experience Finland is to live like a Finn; after all, they have been voted the happiest country for five years. Enjoy nature with plenty of outdoor activities, drink the best tap water in the world and detox your body in a traditional Finnish sauna.

Italy's take on sustainable tourism focuses on making sure the money spent by tourists goes directly to the locals of the region you visit. This means that no matter where you want to stay in Italy, you'll be able to find hotels, bed and breakfasts or homestays that are independently owned.

As far as experiences go, Italy has focused on improving transport links from popular locations, such as Sicily, to rural areas. Take time to explore the stunning scenery through plentiful cycling paths and hiking trails, leaving a minimal carbon footprint behind you.

Immerse yourself in Italian life and enjoy cultural and sustainable events such as Santa Croce Festival in beautiful Tuscany. The entire town of Lucca is lit up during this historical festival, and a parade makes its way through the streets.



OEURO

3 Belgium Relgium is taking activ

Belgium is taking action against its high carbon output, and visiting the area will open your eyes to the possible innovations you can implement on a return from your trip. All visitors to Belgium are expected to follow recycling protocols and will be able to take advantage of increased cycle lanes and greener public transport options.

Belgium has embraced slow tourism, allowing travellers to explore rural regions such as Wallonia, enjoy beautiful views, and enjoy outstanding food. This supports rural communities and encourages excursions using bicycles or walking.

Discover the mediaeval city of Durbuy, get lost strolling cobble streets and discover locally sourced cuisine. From golf to rock climbing, hiking and kayaking, you'll never find yourself bored in the world's smallest city.

4 Slovenia Discover the first ever Green

Destination in the World; Slovenia has been recognised for its sustainable development. Slovenia's dedication to preserving its natural landscape has made it a perfect and unspoilt sustainable vacation spot.

Lake Bohinj is a stunning location for any sustainable traveller to relax or explore. You can take part in countless activities to discover the natural beauty without damaging the surroundings, such as paddle boarding and hiking.

If you're looking to kick back and relax, consider a visit to the town of Laško and where you can bathe in thermal springs. Laško has been awarded for its ongoing commitment to promoting sustainable tourism.

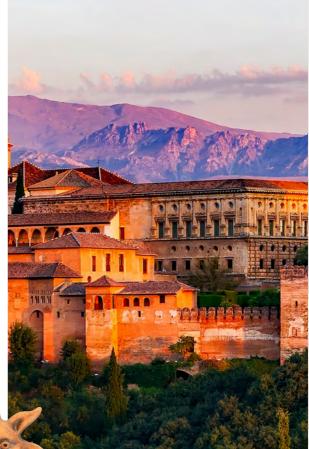


5 Spain

Being one of Europe's most

popular tourist destinations, it was important Spain took steps to promote ecotourism. This is evident in the large number of protected green areas in Madrid and Spain that are committed to renewable energy through wind power.

If you are passionate about food, consider visiting Valencia in Spain to experience Green Michelin star cuisine, the world's first, at Ricard Camarena restaurant. You can also enjoy the Central Market, showcasing sustainably and locally sourced food in one of Europe's oldest markets.



The country has 16 national parks brimming with bio-diversity and breathtaking landscapes. Go on Go on wildlife safaris to witness the species that sustainable tourism efforts are trying to protect.

Why it matters

Prioritising sustainable travel is essential to protecting our environment. Everyone loves a holiday but to maintain the level of tourism society is currently at, we need to reduce the negative impacts on our environment.

Travelling to sustainable vacation spots will boost the economy in these areas and encourage the tourism industry to invest in similar protection. Don't feel guilty about wanting to get away; just make sure you're spending your hard-earned vacation fund in the most eco-conscious destinations.





Environmental concerns about gaseous emissions, climate change and noise are becoming an increasingly important economic, social and political issue for aviation. Tackling the environmental issue is the latest major challenge facing global aviation.

While aviation represents just 2% of global CO2 emissions, air transport generates 0.6 billion tonnes of CO2 per year. If we are to create a more sustainable and thriving planet, aviation is an area we need to focus on.

The good news is that there are lots of ways to tackle this, and given the current situation we are in, the COVID-19 pandemic and air travel coming to a halt, we have the time to focus our efforts on creating sustainable aviation.

Over the last number of years, people have become more conscious of the impacts of air travel on the planet and become more aware of inspired movements, such as when Greta Thunberg made her stance and gave up flights.

She sparked widespread 'flight shaming' in her choice to refuse to fly, feeling that it would make travellers think twice about their means of transportation and prompt them to make a more thoughtful approach to travel.

There are more thoughtful approaches to travel than that of aviation which has a large impact on the environment and human health. For instance, new aircraft and biofuels are key to reducing carbon emissions.

Designing new aircraft that take fuel that is not harmful to the environment is key in creating sustainable aviation. Biofuel, for those who have not heard of it, is derived from biomass, i.e. plant or algae material or, alternatively, animal waste.

Given that such feedstock material can be replenished readily, biofuel is considered to be a great source of renewable energy, unlike that of fossil fuels such as coal, natural gas and petroleum.

The reality is, that we all want to travel the world and travelling by flying is not something that is going to stop. You may be wondering what you can do as an individual to promote and ensure you are flying in the most sustainable way possible.

One way to do so is by thinking about biofuels and choosing airlines that either blends their biofuels with fossil fuels or those that have already incorporated newer, more fuel-efficient aircraft into their fleets.

Alongside the fuel and energy flying use that harms the planet, another thing to consider is the amount of waste created on these trips. The amount of waste that is created on aeroplanes plays a huge role in the aviation impact.

So, if you want to help, you can reduce your own impact by bringing your own food in reusable bags or containers, bringing a reusable water bottle and bringing some reusable utensils to use during the meal service. If you want to take the route of reducing your impact by offsetting the carbon emissions of your trip, there are lots of organisations that will enable you to do this also. Offsetting CO2 helps to reduce emissions from air travel through individual actions before and after a flight.

Not to mention, the money you pay to offset your emissions often goes to a worthy cause. For example, helping people in the areas that are most affected by climate change. Just ensure that the organisation is legitimate before you give them your money.

If you want to offset emissions without paying an organisation to do so, there are a number of actions you can do as an individual. You can seek out tourist activities that help the Earth and support local businesses that focus on sustainability.

Also, you can opt to fly direct and travel lightly because this will lower the drag on

lightly because this will lower the drag on the plane, causing it to use less fuel. We have been presented with an incredible opportunity to really hone in on the areas of our society that are harming the planet.

Given this opportunity, we can improve and adapt to ensure that the impact of aviation on the environment and human health is reduced. By making thoughtful changes in our personal lives, we are able to align more closely to the Sustainable Development Goals set out by the UN, to build back better for a more sustainable future.







If we lose bees, we may be looking at losing apples and oranges. We may be looking at losing a great deal of other crops, as well, and other animals that depend on those crops.

- Annalee Newitz

"If the bee disappears from the surface of the Earth, man will have no more than four years left to live" is a quote from Einstein that can sum up the importance of bees. It is not easy to observe bees and imagine that all human existence depends on that simple being. When talking about bees, we are often referring to honeybees.

However, scientists believe the number of species to be over 20,000. Currently, only about 16,000 of them are registered, and unlike public perception, solitary bees make up 75% of all species. They do not produce honey, are significantly smaller, and female specimens make nests instead of hives for their larvae.

Despite being called solitary, most of their nests are connected with one another, and some of them even make them collectively. Solitary bees cooperate for defence reasons, but each female only builds the conditions for her larva.

On the other hand, honeybees have a more collaborative system in their hives. They can be separated into three main categories: drones, usually males; workers, mostly females; and the queen (female).

Drones are primarily used for reproduction and originate from unfertilised eggs; Workers come from fertilised eggs and do every other task; while the queen is created by feeding only with "royal jelly" and is the biggest in the hive, being responsible for laying eggs and mating with drones.

Queen bees are exceptional, mating with up to 70 partners a day and laying up to 1500 eggs in the same time interval for up to three weeks while always producing several pheromones that control workers' behaviour to keep a functional hive.

Adult bees have an estimated flight life of 800km. In the summer, they travel that distance in about 20 days, while during the other seasons' bees travel a lot less, taking up to 4 months to travel the 800km limit and living six times longer.

They have high pollinating efficiency and unique speciality, feeding exclusively on nectar and pollen and constituting 73% of plant pollination. This is mainly due to its scope of action, as the average working radius of an adult colonial bee is 1.5km.

Considering that the median hive has about 60,000 individuals and 2/3 of them collect pollen daily, the area covered by them is a colossal 700 ha, which means around 35 million flowers are visited per day.

In addition, bees are "faithful" to the plant: while the plant keeps providing them with good nectar, pollen, or oils, the bee will continue to visit and notify her colleagues to visit the factory using dances that convey its distance and direction.

Bees determine the reproduction of plants and, consequently, which will dominate the landscape. The success of these species affects other animals, such as birds and mammals, which feed and disperse seeds. As a result, a large network is formed in which bees are central elements.

If a bee is missing, the plants suffer, reproductive success decreases, and vegetation will change. This affects the entire microclimate in the region by influencing the evaporation regime and the rainfall pattern. On a large scale, it reduces the capacity to store carbon, aggravating the climate crisis.

As we depend on plants for food, the consequences are even more dramatic. 90% of the main crops are visited by bees, and almost 50% of them have an essential or large dependency on pollinators. Pollinated flowers have more durability and nutritional value, as well as increased production.



Despite being the most beneficial, agribusiness is also primarily responsible for the mortality of bees. Agricultural expansion destroys forests, which are essential for the conservation of bees, and pesticides, mainly insecticides, directly affect their life cycle.

Climate change is another factor responsible for the reduced number of bees. Irregular rain showers affect the flowering of the plants, reducing the bee's feed. Due to malnourishment, bees cannot reproduce normally. They do not have adequate time to produce bees with four months of life to last the winter, only having summer bees.

New diseases, such as a varroa (a parasitic mite from Java) that has spread worldwide and creates havoc in beehives, severely limit the bee population as well. While only colonial bees are affected by this, they are also the biggest pollinators in the bee species.

Variety is very important in a bee's diet, and the desire to grow even more products with high economic performance has led to the creation of monoculture expansion, where the only pollen and nectar available are those from the plant in production.

Finally, European and Asian colonial bees have another threat: the Asian wasp. It is an extremely aggressive predator that arrived in 2004 via France. Since then, it has spread all over Europe and is highly damaging to beehives due to favourable climate and very few predators.

Bees have no defence mechanism against such predators, but beekeepers are developing mechanisms to protect their hives, and the authorities are managing species control strategies to contain its uncontrollable spread.

There are numerous ways to protect the species, and it is up to us to avoid its extinction, which would completely devastate the food industry, cause famine worldwide, and aggravate the climate change crisis.

Governments need to act by imposing regulatory standards for pesticides, promoting integrated pest management, regulating the movement of pollinators managed between countries, and providing numerous incentives to encourage farmers to use nature-friendly services like pollination instead of agrochemicals.

We as the people must put pressure on the state to act fast to safeguard species conservation before it is too late. Supporting diversified agricultural systems by buying from organic farmers that engage in environmentally friendly farming is the best way to ensure that we are taking care of their ecosystems.

Bees are hugely important to the ecosystem and to human health. They are responsible for a third of the food on our plates. It is vital that we protect and care for them. We need to act now, or we will risk our beloved buzzers becoming extinct.

Let's bee the change we want to see.



MOVING WATER ALLIANCE PODCAST

COVERING ZERO WASTE & CLEANUPS

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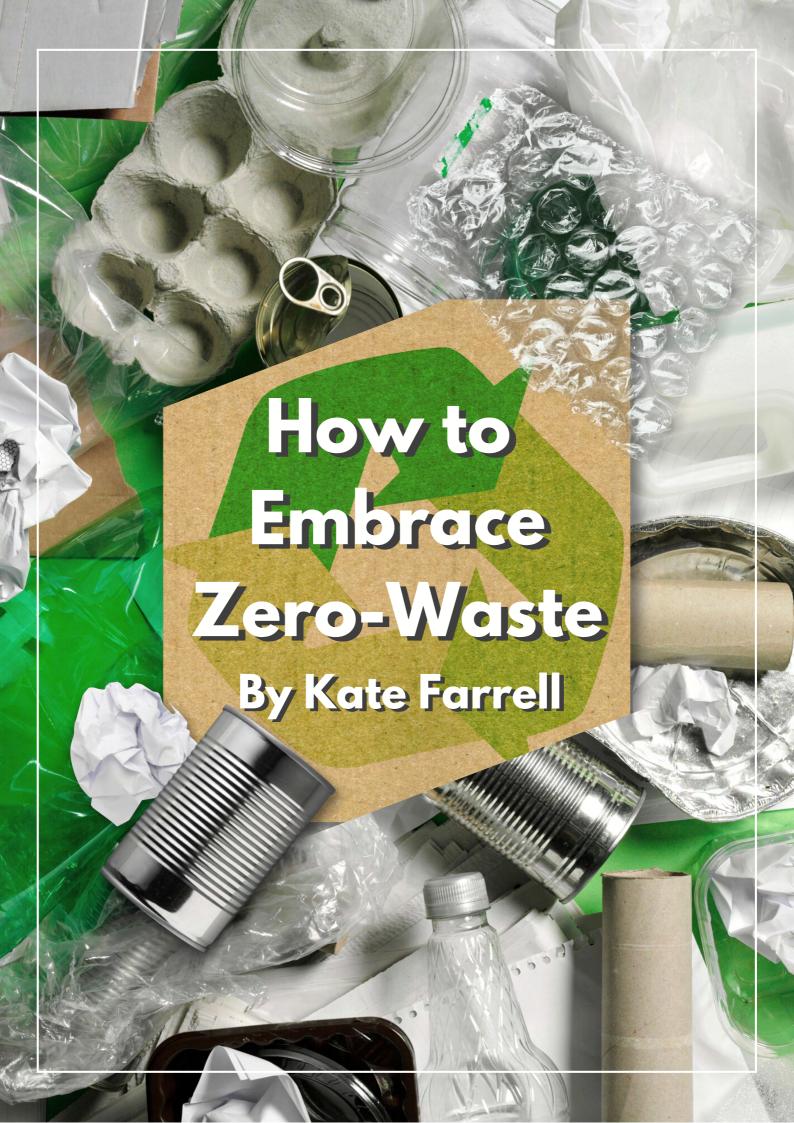
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Zero Waste is the term used to describe a way of living in which we attempt to reduce the amount of waste produced as much as possible. It's all about decision making, all along the consumption lifecycle, when people choose, purchase, consume and discard.

"Zero Waste is a goal that is both pragmatic and visionary, to guide people to emulate sustainable natural cycles, where all discarded materials are resources for others to use. Zero Waste means designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water, or air that may be a threat to planetary, human, animal or plant health. Zero Waste is a philosophy, a strategy, and a set of practical tools seeking to eliminate waste, not manage it."

- Definition of Zero Waste as adopted by the Zero Waste International Alliance

Why does a zero-waste lifestyle matter?

The Earth has finite resources, and our natural materials and resources are being used with little respect or thought to where they are coming from or how they are being disposed of. We rarely stop to think or ask about how these products and food are made or designed. Now, we need to be questioning how they are made and how this waste will impact our planet.

We realise now that we cannot rely on world leaders, national politicians or multinational corporations to reduce carbon emissions, cut pollution or protect natural carbon reserves such as forests. Individuals, rather than corporations around the world, are rejecting the commonly accepted model of consumption living. The impacts of climate change are ever more apparent, so we must take it upon ourselves to challenge and reverse the status quo of mindless consumption and wasteful living.





Main drivers of waste

Food waste

One of the main causes of climate change on a worldwide scale is food waste. Food production, processing, and transportation all require substantial resources. If food is wasted, these resources are wasted too. It has been estimated by The UN Food and Agriculture Organisation (FAO) that approximately 1.3 billion tonnes of food is wasted each year.

Food waste contributes directly to water stress, food shortages, increased greenhouse gas emissions, and biodiversity loss. Worldwide, over one-quarter of food produced is wasted: with waste and food loss contributing 8-10% of total emissions.

What can we do about it?

- Design and reconfigure our global food supply chain to one that reduces loss in handling, storage, processing and transport of food
- Supermarkets in industrialised nations can donate unsold goods to share the surplus and avoid unnecessary waste
- Transform leftovers into new products, for example, turning leftover bread into Ale
- Educate people on food safety and waste
- Change consumer behaviour

Plastic waste

As the world's capacity to deal with the fast-rising output of disposable plastic goods becomes overwhelmed, plastic pollution has emerged as one of the most urgent environmental challenges.

In developing Asian and African countries, where rubbish collection services are either ineffective or nonexistent, plastic pollution is most noticeable. However, the industrialised world also has issues with adequately collecting used plastics, particularly in nations with poor recycling rates.

Some key facts:

- Half of the plastics ever created were made in the past 15 years.
- The production of plastic has increased significantly, growing from 2.3 million tons in 1950 to 448 million tons by 2015. What's more, this production is expected to ultimately double by 2050.
- 8 million tons of plastic waste venture into the oceans from coastal nations each year. This is equivalent to leaving five rubbish bags of trash on every foot of coastline across the globe.
- In order to make plastics stronger, more flexible, and durable, additives are often included. However, a lot of these additives can extend the life cycle of products. For example, some plastics are estimated to take at least 400 years to break down.

Many scientists and environmentalists agree that the solution is to stop plastic garbage from entering rivers and oceans in the first place. This might be done through increasing recycling and waste management systems, improving product design to account for the limited lifespan of disposable packaging, and reducing the production of unneeded single-use plastics.



Textile waste

Thirteen million tonnes of textiles were discarded in the US in 2017, and 85% of those were either burned or disposed of in landfills. According to estimates, the typical American discards about 37 kg of clothing each year.

Additionally, it is estimated that 92 million tonnes of textile waste are produced annually throughout the world, with one garbage truck's worth of clothing ending up in landfills every single second. We anticipate wasting more than 134 million tonnes of textiles annually by the year 2030 as a whole.

What can be done about it?

- Embrace and take care of the clothing you currently own - repair any holes or rips in your clothes instead of discarding them.
- Consumers should try to purchase from Charity shops or thrift shops; this will help stop clothing go to landfill.
- Rent clothing if possible, instead of buying something for a special occasion and then never wearing it again.
- If you absolutely must purchase a new item, try to opt for one that is totally or mostly constructed of recycled materials, or make sure that the item you are purchasing is something you will treasure for many years to come.

Deposit return schemes (DNS)

Deposit refund schemes (DNS) allow customers to purchase goods and pay a modest deposit that will be refunded when they return the product's container to a collecting location after use. Plastic, metal, and glass drinking containers are the most frequently collected and recycled because they may be easily converted into secondary raw materials. The cost is often between €0.10 and €0.50, depending on the kind and size of the container.

In Europe, ten nations—Croatia, Denmark, Estonia. Finland. Germany. Iceland. Lithuania. Netherlands. Norway, and Sweden—have previously enacted deposit return policies. All of which have produced noteworthy outcomes. With a total return rate that includes cans, PET bottles, and glass that is already greater than many European nations, Estonia is the least successful nation.

Norway is the most successful example in Europe, recycling an amazing 97% of plastic bottles. Due to its high population and extensive DRS targeting of glass, plastic (mostly PET), and metal (aluminium) with a 98.4% overall return rate, Germany likewise has very good outcomes.

Zero waste stores

A zero-waste shop allows customers to lead a more sustainable lifestyle by doing away with the packaging and encouraging them to bring containers from home to fill and refill with bulk whole foods, cleaning, and natural beauty products. These materials are kept and displayed in various dispensers all over the store, creating an environment that has been described as having an old-world feel with a playful modern touch.



Benefits of zero waste

There are many benefits of countries incorporating Zero Waste infrastructure, some of which are:

- Closing the material loop
- Reducing dependency on imports
- Bringing nutrients back to the soils
- Reducing the environmental impact associated with waste disposal
- Driving innovation in product design
- Providing thousands of extra jobs

How to become a zero waster

When starting out to reduce your waste and overconsumption, every step is important. Besides changing your own habits, tell others what you're doing and also get active in lobbying companies, service providers and shops you use. Make them aware of the waste problems they are creating and encourage them to find better solutions.

- Be conscious of how you consume and purchase materials; only purchase what you really need and try to buy quality over quantity.
- Ensure you have a water bottle, coffee cup and cutlery set with you at all times, so you avoid using single-use plastic items.
- Look up tips and tricks online on how to solve food waste issues; there are some innovative ideas, such as using banana peels to make a delicious chutney!
- Put pressure on government and corporations to implement legislation and to do more to reduce their waste.



AUGUST & SEPTEMBER 2022 WHAT'S ON





As we settle into August and September, there are some special dates we would like to celebrate. World Humanitarian Day (19/08) and Women's Equality Day (26/08). It's time to get involved with the climate community and further educate ourselves on how we can help our planet. Here's what's coming up on the climate calendar for August and September.

12 Aug

The Youth Giving Summit Part 1 - Inspiration

by The International Social Impact Institute

Nelson Mandela once said "the youth of today are the leaders of tomorrow". When we talk about the future, we also discuss climate change and its implications. The question of the moment is how youth leadership will deal with it. Putting a spotlight on the younger ones opens up the call for prestigious speakers such as 2006 Nobel Laureate Professor Muhammad Yunus, Siyabulela Mandela, Ph.D. (Regional Project Manager - East & Southern Africa, of Journalists for Human Rights) and Mohaiminul Raqib (Founder, BIHDP / Apprentice, 3ZERO Club). The event is for a global audience, not limited to young adults, teenagers and their parents, but individuals interested in youth-oriented future initiatives.

This is the first part of a 3 series of online events. Access the link through <u>The International Social Impact Institute LinkedIn.</u>

18 Aug 3 PM - 4 PM CET

Active Minds: Climate Change

by Louisville Department of Library & Museum Services

Active Minds is an online event that will debate the predictions and the politics given the US and the Paris climate accord. Recent polls show that 80% of Americans believe in climate change and that its outcomes may harm them and their loved ones. US policies and agreements influence worldwide how we tackle climate change. This seems just the right amount of content for those who enjoy international politics and environmental projections.

Access the online event through this Zoom link.

1 Sept The Future of Food

6PM - 7 PM CET by The Danish-UK Association

Have you ever thought about the environmental impact of food? The Danish-UK Association panel has business, policy and food experts to debate the main queries related to food production and consumption. The experience acknowledges the correlation between the industry and the consumer side of the chain. Its main objectives are to understand the current food trends, the policies related to consumption and its drivers, consumers and industry's sustainability obstacles and how to overcome them by aligning to the UN (United Nations) guidelines.

Tickets are available for the webinar at EventBrite.

29 Sept 5:30PM CET

The Importance of Cultivating our Youth as Active Environmental Protectors

by Moving Water Alliance

In this workshop, Jennifer Damian, the chairperson of the Moving Water Alliance Project will explore how to engage children and teens to become active and sustainable community members.

Register for the event at this link.

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