



SEALOEarth
Serene Environment And Life On Earth

A world in which all people participate in the stewardship of planet Earth.

SEALOEarth in Special Consultative Status with the United Nations ECOSOC since 2017

NEWSLETTER

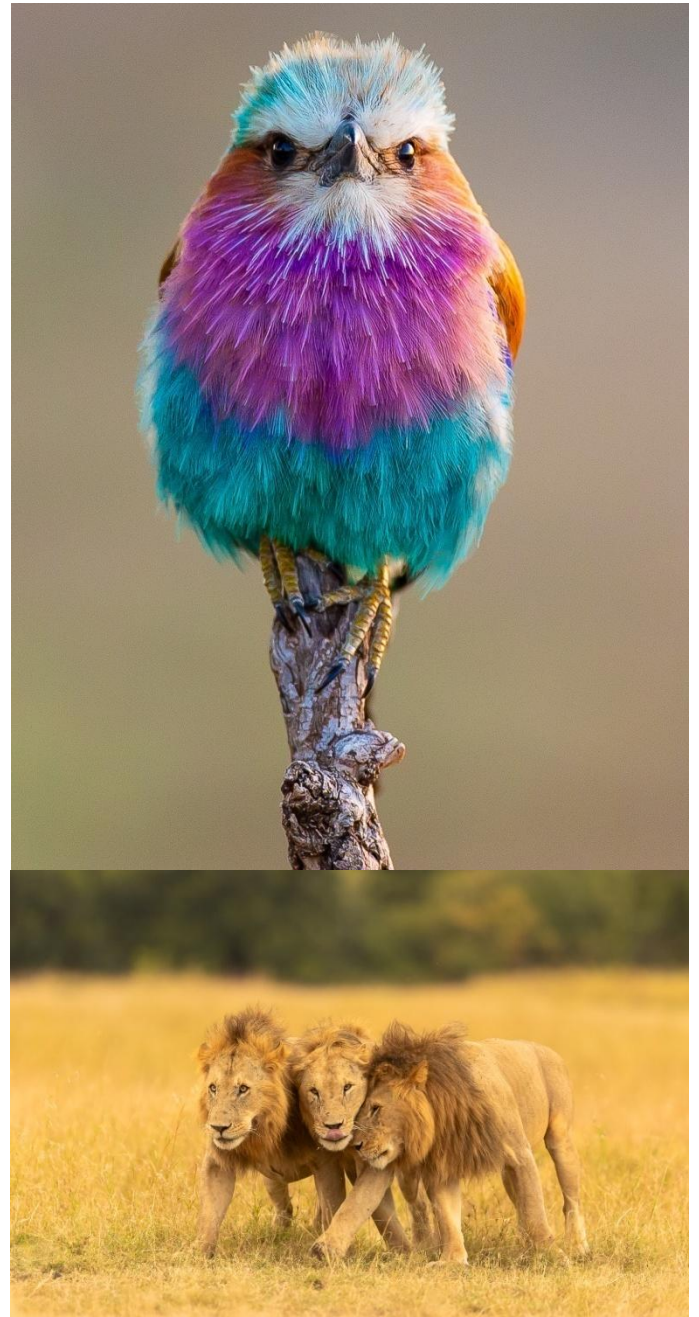
Earth Day 2019

“One person can make a difference, and everyone should try.”

~ John F. Kennedy

INSIDE

Emperor Penguins.....	2
Celebration of Earth.....	3
Global Environmental Distinction 2019.....	3
Global Essay Contest 2019	4
Essay prompt for 2020	7
Let There Be Peace on Earth.....	7
Nature in your Neighborhood	8
An Encounter with Serval Cat and her Kitten.....	8
A Perfect Planet: Only Achieved Together	10
A World Without Climate Change.....	12
Drastic Food Waste.....	14
Recycling in Local Restaurants.....	16
Ecocide: A Crime Against Creation	18
How Cooperation still influences us in the 21st century: from a Biological to a Political point of view	20
The Utmost Importance of Collaborative Efforts	22
Writing the Future Together.....	24
People Together Strong.....	27
Collaboration: The Answer to Environmental Problems	29
Appreciation	31
Acknowledgements.....	32
Contact Us	32



Lilac Breasted Roller and Lion brothers. Photos credit: Praveen Siddannavar

We hope that you will enjoy reading this newsletter!

Emperor Penguins

Halley Bay, Antarctica



Momtastic. Photo credit: Harmony Hobbs

Antarctica's charismatic emperor penguins are thought to be particularly vulnerable to climate change, because warming waters are melting the sea ice where they live and breed (Science Magazine). Antarctica's second-largest breeding colony of emperor penguins, located in the Weddell Sea, has experienced "catastrophic breeding failure" for the past three years, with nearly all of its chicks failing to survive due to the breakup of sea ice, according to a new study published in the journal Antarctic Science. The colony was once home to 14,000-25,000 breeding pairs a year, representing up to 9 percent of the global emperor penguin population (E360 Digest). Many of that colony's penguins seem to be moving to the nearest adjacent colony, 55 kilometers away, which increased in population 10-fold as the population fell at Halley Bay.

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The Brunt Ice Shelf's emperor penguins

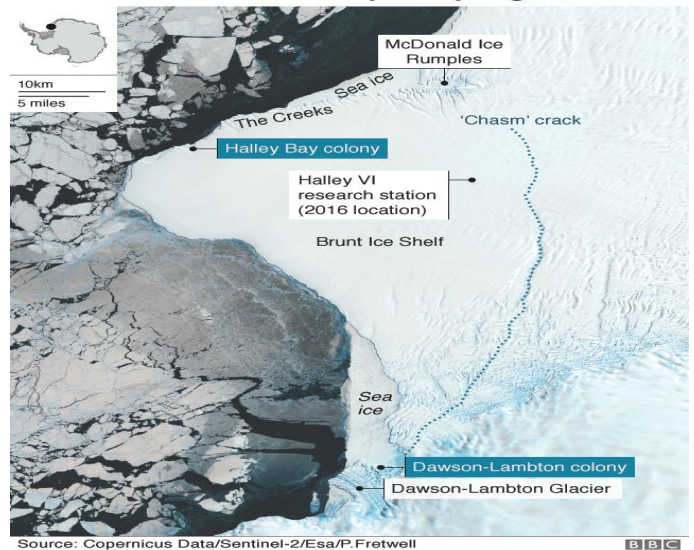


Photo credit: Copernicus Data



Photo credit: British Antarctic Survey



Photo credit: Christopher Walton

Celebration of Earth

Westford, Massachusetts, USA

On April 22nd, 2019, the Earth Flag was hoisted at the home of Dr. Chaitanya Hiremath.

Earth Day was celebrated at the J V Fletcher library in Westford, Massachusetts on Saturday, April 27th 2019.

Dr. Hiremath welcomed the audience to the Earth Day Celebration. Ms. Sarah Balian was the master of ceremony.

Westford Chamber Players, Jonathan Ran (Violin), Andy Liu (Violin), Patrick Zheng (Viola), Silas Bollen (cello) presented the String Quartet. Chamber Music coach was Dimitar Petkov. Dongchun Wang coordinated the program.

Dr. Bill Harman lead the audience in singing the song “Let there be peace on earth” written by Jill Jackson-Miller and Sy Miller.

Dr. Harman and Mr. Bob Price presented the awards and the certificates of SEALOEarth Global Essay Contest 2019. The winners and honorable mentions read their essays to the audience.

To heighten the awareness of the plastic pollution worldwide, metal water bottles were given away to the people who attended the celebration – one per family due to limited supplies.



Global Environmental Distinction 2019

Inspiring environmental projects related to fostering biodiversity, strengthening ecosystems, and establishing sustainable practices are recognized.

This year there were no submissions of environmental projects.

Global Essay Contest 2019

Around the World

In the early 2019 alone, SEALOEarth's global reach included countries such as, Brazil, China, Malaysia, India, Indonesia, Italy, Jamaica, Nigeria, Pakistan, Philippines, Republic of Korea, Russia, Saudi Arabia, Saint Lucia, Switzerland, United Kingdom, United Arab Emirates, and United States among others.

We received 121 wonderful essays from seven countries across three continents. The essays were blind-scored by our international panel of judges. Since we did not receive any entries in the Youth category for a few years, we lowered the word count this year, and the response was amazing. In fact, this year we were pleased to receive the record number of entries thus far. We are grateful to all the teachers who motivated their students to participate in the contest. We encourage writers of all ages to make use of the resources made available to get started.

Winners

"Describe how great things happen when we come together."

Youth (ages 9-14)

Anya Bhandari (USA)	1 st
Bastav Senapati (USA)	2 nd

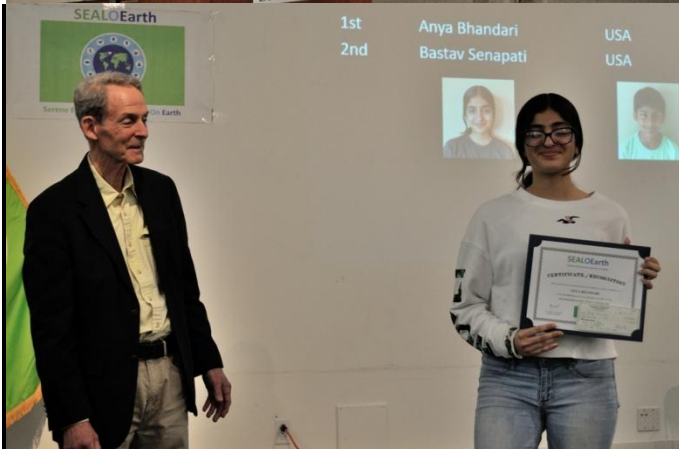
Juniors (ages 15-18)

Sonia Khamitkar (USA)	1 st
Leo Kiefer (USA)	2 nd

Honorable Mention

Austine Lee (Philippines)
Estela Santos (Brazil)
Isabel Huang (USA)
Jacqueline Clay (USA)
Jordyn Brooks (USA)
Soyeon Cho (Republic of Korea)









Essay prompt for 2020

“Describe how we can open our heart and feel grateful for the beauty of this planet and its inhabitants.”

The deadline is March 1, 2020.

For more information, please visit:

<http://sealoeearth.org/essaycontest.html>

Let There Be Peace on Earth

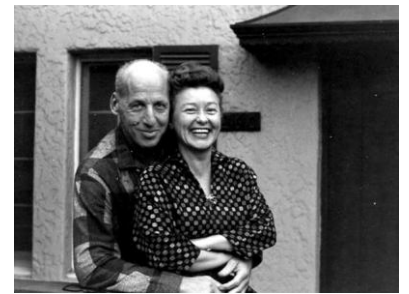


Photo credit: Jan Tache | Special to the Times

Jill Jackson-Miller and Sy Miller

Let there be peace on earth
And let it begin with me.
Let there be peace on earth
The peace that was meant to be.

With God as our father
Brothers all are we.
Let me walk with my brother
In perfect harmony.

Let peace begin with me
Let this be the moment now.
With every step I take
Let this be my solemn vow,

To take each moment
And live each moment in peace eternally.
Let there be peace on earth
And let it begin with me.



Nature in your Neighborhood



Maasai Mara, Kenya, Africa

An Encounter with Serval Cat and her Kitten...



Praveen Siddannavar, India

Award winning
Natural history photographer
Wildlife conservationist

There is nothing ordinary about the plains of the **Maasai Mara** in Kenya, Africa. Every frame holds the power of redefining the moment. From the million hues of gold and green grass, to the dance between the prey and the predator, the story woven around the circle of life in the land where the sound of the million hooves and the whispered wind holds the power of taking you back in time.

It's the migration season – the greatest show on the planet. The lone acacia tree stands tall against the blue sky as the wind carries the scent of a fresh kill. Hundreds of zebras



and wildebeest peppered with gazelles and buffaloes hold our attention. My camera's viewfinder trains its lens to the **cheetah** that lazes in the horizon... its casual stance masking its hungry intentions.

A not so distant roar thunders, causing the herbivores to pause and cock their head – wary and watchful. A circle of vultures on a canvas so pristine and clear points the scavengers to the fresh kill. It's a land where there is no beginning and no end.

Whispers of a serval, who apparently had just given birth, peppered our evening conversation. In all my years as an amateur wildlife reporter, I have never come close to the elusive cat. I have heard stories, but never had a chance to capture the shadow of the land on camera.

Back in the thick of the wilderness, I trained my lens to capture a stalking leopard. Just as the viewfinder settled on the predator's movement, the 4x4 roared into life – the guide said the elusive serval with its newborn was on the move.

The stories of the Maasai Mara are not simply woven around the Big 5, but of getting up close and personal with never-before-seen wildlife and experiences. It is about simply marvelling at the effortless way a million stories burst into life in that single frame.

“Would this once-in-a-lifetime frame come alive?” was the question that flirted in my mind while the wheels barely touched the Masai Mara soil. The wildlife reporter in

me knew I was leaving behind an unparalleled story in search of another. But then, that's the beauty of the land – there is a fine balance to the prose it unleashes.

Amidst the tall grass, the **serval** mother was moving her kitten. Her movements seem ghostly, barely causing a ripple in the grass. Cautious of her surroundings, she wove herself through the grass with her kitten firmly held. Age-old maternal instincts guided her.

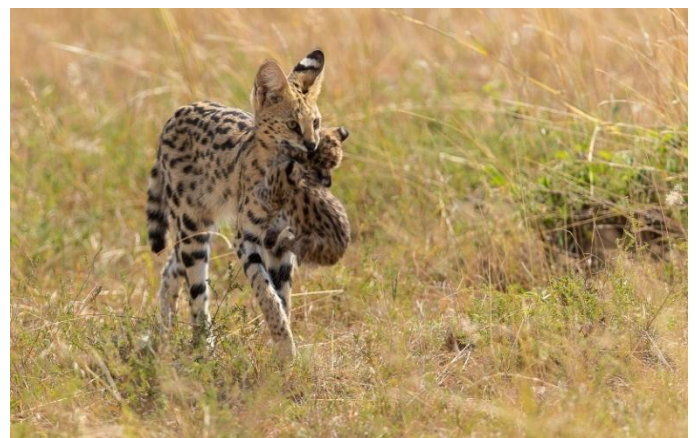
The stillness that surrounded us weighed in. It was a once-in-a-lifetime moment – the Maasai guides had only seen brief glimpses of this cat, or heard whispers about it from their grandfathers.

My camera tried to capture the mother and her young kitten, though the lushness of the vegetation made her elusive. The shutter never paused but I knew the story was in vain.

But, the years amidst nature and her stories teaches you to wait... to pause. To let the animal know that you are part of the story. And the wait here was just that. Pin drop silence and a surreal stillness made the serval come out to the small, open grassland, never once letting go of her little one.

She stood still – looking me in the eyes and giving me a slice of her soul. She was a new mother who was on the move to protect her little one. A stroke of luck and the mystery that nature unleashes, she decided to pause and let us into her world.

Life isn't easy for this mother for the next 3-4 weeks until her kitten is able open its eyes and walk on its own. The weaning period of newborns is around four weeks, and once the cub is 6 months old it will start to hunt and feed on its own. Eventually the juvenile will separate from the mother after approximately 12 months.



Photos credit: Praveen Siddannavar

His images have also been exhibited both at national and international art galleries in London, New York, Portugal, Iraq, Dubai & India.

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<https://www.facebook.com/PraveenSiddannavarPhotography?ref=hl>

<https://www.instagram.com/praveensiddannavar/?hl=en>

A Perfect Planet: Only Achieved Together



Anya Bhandari(12)
Massachusetts, USA

“Coming together is the beginning. Keeping together is progress. Working together is success.” - Henry Ford.

The quote above is a perfect representation of our Earth. Throughout our history there has been movement after movement, and marches to end unjustified rules and groups to help those in need. It has always been together in which we have accomplished anything. Whether it be to pull species from extinction or to help pull towns from poverty it has always been the bigger picture of us. There has not been a successful case in which someone by themselves has accomplished something with a positive effect. If you were to think of three general categories of things in our ecosystem it would probably be; animals, plants, and water. Using those three categories we are going to see how groups of people have positively had an effect on the environment by working together. So how do great things happen when we come together? Well let's take a walk through history to see some examples of how we do it.

We will be starting with our first category of the most helpful creatures to our environment; animals. We're going to be looking into a wildlife organization known as “World Wildlife Fund”. As stated in the name, it is an organization who raises funds for wildlife in our environment. WWF was formed when 16 of the world's leading conservationists joined forces to help multiple animal species. This was called the

Morges Manifesto. Since wildlife organizations were low on funds, the choice was made to form WWF to retrieve the necessary funds. Since then the organization has helped recover several animal species from extinction such as the Amur Tiger, African Rhino and more. WWF does not just act as a fund but as a community of people who love animals and would like to save them. Another example of a group of people coming together to protect animal species is the Endangered Species Act Of 1973, which has helped increase the amount of sea turtles and other marine creatures which were endangered around the United States. The idea was born when an ornithologist group from the early 1900s observed that passenger pigeons had disappeared and bison were near-extinction. This drove members from the group to publish articles in popular press papers and introduce the public to the idea of extinction. The ornithologist group worked for years, convincing as many people as they could how serious the situation was to our Earth and the creatures on it. Their effort was not in vain as three acts were passed before the organization got a law that satisfied them. This has helped save many species from extinction which automatically saves the environment in which they inhabit. If you are familiar with how an ecosystem works, each part is important to the general whole. It is like a team in which without one player they will not win the game. If one animal goes extinct from the ecosystem, it will collapse.

Onto our next category of plants in the biosphere. Have you ever thought that the very existence of the environment proves to us the value of togetherness? Without a splendid harmony amongst our ecosystem, this very planet would not exist. We, the seven billion people of this planet, have been working towards the idea of a better Earth for the past couple of decades but have we realized that we cannot accomplish this without working together? In 1973, a sporting company was granted access to use the wood supplies (trees) in the area of Mandal, a small village in India. This angered many villagers as their requests to use the wood in the area for agricultural tools had been denied earlier. This gave activist Sunderlal Bahuguna and many others an idea to take a stance for his environment and go against unjust laws. With the help

of women in the community, he was able to get a few organizations to help his active stance. This movement, known as the Chipko Movement would not have been as wide spread if he had not had that many people on his side. This large movement helped other parts of the country. As stated in an article regarding the movement, “The success achieved by this protest led to similar protests in other parts of the country” (“The Chipko Movement”). The movement helped pass a law to stop deforestation in India. If it had not been for the widespread involvement of the people this movement would have just been one person speaking out against the government. No one would have taken it seriously if it had not been for the involvement of many people and the person would probably be sent to jail for disrupting society. Another aspect of the biosphere and how we are trying to positively affect it is our climate. Studies show that Earth’s climate has been rapidly warming since the late 1990s. Although some people do not believe in climate change, science speaks differently, and so do most people. Recently, several teenagers in Germany have been protesting for more climate action or laws to be passed as “climate change is very real and they know what they’re talking about.” (Cwienk). What is the United States doing for this? The United States has recently introduced the Green New Deal which calls for an increase in renewable energy sources such as solar, wind and hydro energy sources. The years of protesting by many groups of people is paying off and we are looking toward a better climate in the near future. But only if we follow through on our plan. Many protest groups are going to make sure we do.

Our last example of coming together for the environment circles around most of the Earth, and that is our hydrosphere. Very recently, many people have been seeing how all our waste such as plastic water bottles, plastic wrap, or anything else plastic is harming the Earth’s oceans and inhabitants. This is because plastic is non-degradable, which means it cannot decompose very easily. NYU is planning to “reduce waste by over 330,000 plastic water bottles per year.” (Keogan). The effort was started when “a very engaged community of students, faculty, staff, and administrators,” (Keogan) were searching for a way to stop plastic pollution.

Although this initiative has been started recently it will have a great positive impact on the environment. It “has reduced carbon emissions by 30% -- equivalent to some 59,000 metric tons of carbon annually” (Keogan).

So how do great things happen when we come together? By standing up in teams and spreading awareness for our Earth, together we can prevent anymore horrible things from effecting our only treasure, our planet. If everyone works toward a common idea and vision we can make it happen. Whether it be something as simple as helping out with a show or stopping climate change, we can make it happen by coming together. To save nature, humans must work together to create more advanced technologies to replace fossil fuels or just to create more environmentally friendly cars. When either is accomplished humanity will know they have produced a truly amazing feat: a sustainable environment that is not at the expense of our planet Earth. As Martin Luther King Jr. stated in a rather relevant quote, “We must learn to live together as brothers or perish together as fools”.

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A World Without Climate Change



Bastav Senapati (11)
Massachusetts, USA

Have you ever wondered what the world would be like without all this panic for climate change? Our world is constantly changing and as more and more we use fossil fuels, it gets worse and worse. If we don't take action soon, the weather will take a turn for the worse and soon enough, it will go past the point of no return. Luckily, people around the world are using teamwork to help, slow, reduce and even stop the effects of climate change.

Teamwork will always be important. A major example of this is the Apollo 13 mission. What happened was pieces of debris blocked paths so the astronauts couldn't use their navigation system. On Earth, everybody was working together to solve the problem and a scientist said they could use the Sun and calculate from there. This is only 1 example of teamwork. Let's see some examples of teamwork helping to stop climate change.

One example of this is the World Wildlife Fund, also known as WWF which has more than 5 million members working to save the environment, making it the biggest conservation organization (What does WWF do). It was founded in Switzerland and have invested in over 1 billion dollars in more than 12,000 conservation initiatives since 1995.

There are other conservation organizations too. One example of this is the Green Belt Movement. It was founded by Wangari Muta Mathai. They have planted more than 40,000 trees all through Kenya, using the watershed approach. A watershed is a body of water where water gathers up. The Green Belt Movement spread to other African countries and became the Pan African Movement, which taught world leaders about conservation (Wangari Muta Maathai).

Another conservation effort, now switching to water is the Mote Marine Laboratory, which studies coral reefs. Coral Reefs have decreased from 50-80% in the last three decades! They produced a "micro-fragmentation and fusion method" to speed up the growing process of slow-growing corals such as the boulder, brain and star corals. Elizabeth Moore International Center for Coral Reef Research & Restoration studies more than 20 species of hard corals by studying fragments that were rescued from Florida Keys National Marine Sanctuary. Mote's Coral Reef Monitoring & Assessment Program also maintain an underwater nursery growing staghorn corals, which are endangered. Together they have helped create 20,000 corals (What does Mote Marine Laboratory do). These were some coral conservation efforts.

Some more land efforts are the Plant for the Planet, which is a German organization whose goal is to plant 1 trillion trees (What is Plant for the planet).

Also, since 1910, Boy Scouts have done conservation and environmental studies. Scouts have also done public service by helping to conserve wildlife, energy, forests, soil, and water. They even have a Boy Scout Outdoor Code! The following is the Boy Scout Outdoor Code.

"As an American, I will do my best to—

Be clean in my outdoor manners.

Be careful with fire.

Be considerate in the outdoors.

Be conservation-minded."

On any trip or adventure, scouts are supposed to follow the code at all time (Scouting). These are just some examples of ways we are helping to stop climate change. But these are just ways that humans are helping the environment. There are also natural ways that the environment is helping. Most of these include animals. Here are some examples of those.

The most basic example you can get is trees. Trees take in carbon dioxide, a greenhouse gas, and let out oxygen. This is important because of life on earth not being able to exist without it. This is also important because of CO₂ being a greenhouse gas. Carbon dioxide and other gases trap in the heat in our atmosphere, causing it to heat up. Taking away some of it will reduce the heat slightly (The flow of energy and matter through an ecosystem Timestamp 8:35). Another example of this is one symbiosis with the Clark Nutcracker and the white bark pine. The white bark pine's natural habitat is the mountains of Wyoming. This plant is one of the main food sources of its habitat. The squirrels bite off the pine cones so they fall to the ground. Then all the other animals come and eat their seeds. But the Clark Nutcracker has a different way. These intelligent birds store up to 80 of the seeds in its throat. They then plant these seeds. These birds remember where they put these seeds and if they don't get everything, those leftovers become white bark. This relationship between the two species is so important that the two species have evolved to suit them. The white bark branches always grow upward, and their cones at the very tips of them so the Nutcracker can pluck them, while the nutcracker bird grows a tough beak to chip out the seeds (Symbiosis: A surprising tale of species cooperation Timestamp 1:06).

If you want to make a world without climate change become reality, there are some things you can do. You can be like the Boy Scouts and start a park cleanup or just support Plant for The Planet and grow a tree. One thing is for certain: If we work together we can stop climate change. This is a description that great things can happen if we come together.

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Drastic Food Waste



Jacqueline Clay (12)
Massachusetts, USA

Imagine you walk into a landfill, all you can see is piles of food that have been thrown out by people. Well you don't have to imagine, this is a real and we need to do something about it. There are so many people who need that food in those piles. There are school clubs and charities that try to solve problems. But none of them are focusing on my school's food waste. Everyone is so focused on other problems (plastic pollution, air pollution, etc.) that they don't realize that this is a large problem. Even though you think you aren't causing this problem, you are wrong. Everything you throw away, from that lunch you just ate or that food you forgot about in the back of your fridge, is adding to food waste. There are a lot of ways that people can help, but one is well suited for the situation in schools, the separation of uneaten food, half eaten food, and regular trash.

33-50% of food is never eaten, that means half of the world's foods tossed into landfills. There are 3 main problems that come from food waste. These problems are wasting money, wasting food others need, and cutting down trees. Food waste is a huge waste of money. Schools in America alone lose 218 billion dollars on food waste alone. Schools should use that money for other things like teaching children. Food waste also wastes food that others could need. 1 in 9 people on earth are either starving or malnourished, this is a problem that is mainly caused by people throwing away unopened food that other who need it will use. Lastly, another problem that food

waste causes is deforestation. To have a place to put all this food, people are cutting down trees to make room for the estimated 250,000 tons of avoidable food waste in the landfills. There are a lot of problems that come along with food waste, but there are also some good solutions to it too.

There are some good solutions to this problem that so many people don't realize is harming the environment. One solution is an uneaten food collection. There would be a bin in the cafeteria that is collection uneaten food. People will take half of the food to the cafeteria and the second half to a local food pantry. This solution was tried in Chesterbrook Elementary School in McClean, VA. These students learned to separate the uneaten food from the trash and 12 schools in the area ended up collecting 13,502.6 pounds of food. Food like peach slices, string cheese, yogurt, apples and bananas were collected. This solution brought down the amount of money they had to pay and feed many people at their local food pantry. Separating out the uneaten food from the eaten food will have my school pay less money, feed people who need it, and bring down trash in landfills.

Another solution that will help my school is composting. There is another bin next to the uneaten food where people put half eaten foods. Then there will be people who carry it to a separate area of the woods next to my school where they dump it into a pile. This solution will not only put less food into landfills, it will also add educational value to science class. Science classes do different units and those units could include ecosystems, compost piles are great places to observe ecosystems. You can see the herbivores going after the fruit lunch and the decomposers decomposing the food. This would give a great opportunity for an experiment in class or even a class trip to the compost pile to observe. This will get the kids more engaged in the subject matter. These children will also be given the opportunity to join the environmental club which will help to sort the compost and other foods so that people can help with the process. This will help kids be more in the process of helping the environment. With this solution there will be less food waste to pollute the earth.

These solutions will work well for my school, but not one person can do it alone. I will need the whole school community to participate and make it possible. I will need the principal and the lunch attendants to allow me to do these solutions. I will also need the students to help put this in place. They will need to be responsible with separating their food for this to work. I will also need people to empty the compost. It will be hard, but nothing was ever accomplished alone, we need to do this as a community. If we never worked as a community our ancestors would have never come together and survived. Our community at Stony Brook, we will help the inhabitants of earth.

My school will have less uneaten and half eaten food in our garbage after these solutions are in place. The solutions will strongly impact the community by teaching the values of environmental protection in schools. Kids are always throwing away the food they haven't even touched, unintentionally hurting the environment. This will help them learn that they can help the environment in all sorts of ways. We people are hurting the environment and we people need to do something about it. Being part of this mainly unnoticed problem means that you have the best way to solve it, by learning about it and becoming the solution. You don't have to do a large part, just do those small things that will help the others on the planet. Soon, you will have to imagine the food piled high in the landfill, because it will not be there anymore.

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Recycling in Local Restaurants



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“The greatest threat to our planet is the belief that someone else will save it” - Robert Swan, Author. This quote by Mr. Swan is relatable to everyone. Once in their lifetime, everyone has thought that someone else will fix their problems. But some people have tried to help fix one of the Earth’s greatest problems, plastic pollution. Charities like Habitat for Humanity and the Big Brother Big Sister Foundation have already started to collect construction and household items for recycling (Mass.gov). Here is an example to show you how problematic plastic pollution really is. If you condense the existence of the Earth into 24 hours, then human life has been on this planet for 3 seconds (National Geographic). We have done so much damage to the Earth in 3 seconds, including creating plastic pollution. One of the big creators of plastic pollution is restaurants. Restaurant owners throw away too many recyclable items, that could have plastic in it. If they work together with organizations or other people to spread the word about recycling, it might improve our problem of plastic pollution and improve their own restaurant.

I believe that the main creator of plastic pollution is restaurants. Restaurant owners need to learn that plastic should be recycled, not thrown away. They also should know that working with other people is a necessity or else they are

making the plastic pollution problem worse, therefore not protecting our Earth enough. A big problem created by plastic pollution is how it affects our oceans. When we throw away plastic, most of it ends up in our oceans. Ocean life eat this plastic and eventually that plastic will end up in the food we eat. This is terrible for restaurants because if they sell food with a weird substance in it, like plastic, they will suffer deep consequences (LegalMatch). Another big issue with plastic pollution is what will happen to our Earth if we keep ravaging it. Every time we throw away plastic, it will harm the environment in a way you might not have anticipated. Plastic emits a potentially toxic gas called bisphenol A or BPA. This gas can be disposed into our soil and water, which can harm plants and ocean life (ScienceDaily). If we keep letting more and more plastic emit bisphenol A, humans and animals might not have enough supplies to live, potentially making the Earth uninhabited. The last problem I have is most likely the biggest dilemma, teamwork. Most people, like me, hate working in groups. Sadly, it is a necessity. If you don’t work with other people, nothing will get done. To make people, especially restaurant owners want to work with other people, I have some hopeful statistics for them. Studies have shown that restaurants who work with recycling organizations get more customers. Also since the restaurants will hopefully be recycling more, their waste bill will go down significantly (Plastics Make It Possible). Just always remember that when you work together with other people, you are making a leeway for you and animals to create symbiosis (David Gonzales). We can all do something about the plastic-in-the-ocean problem and the soon-to-be “uninhabited” Earth if we work together. In all, if restaurant owners don’t chip in to help soon, the Earth might never be relieved from its sorry state.

Even though plastic pollution seems like it could never be tamed, people have decided to try and conquer it. Washington D.C. has started a ban on plastic straws. They have even said that by July of 2019, any restaurants still offering plastic straws will have a large fine given to them. Another campaign that has started goes a little bigger than one city. Two hundred fifty organizations that are responsible for 20% of the world plastic packaging problem has committed to

reducing waste and plastic pollution (National Geographic). Not only can people with power change plastic pollution for the good, but people like me can do the same. One thing that you could do to help stop plastic pollution is to increase my recycling habit. Another thing that you could do is to make a little club at my school that will try and help the plastic pollution problem. The group could go to elementary schools and teach younger kids about plastic pollution and how they are contributing to it. They might also be able to meet with local restaurant owners and do the same. People worldwide have woken up and tried to stop our plastic pollution problem. They have done a pretty decent job, but if restaurant owners and myself chip in too, the Earth might see a bigger change.

Lets recap. If restaurant owners keep putting more and more waste onto this Earth instead of recycling them, the world might never change. If they partnered up with other major organizations to recycle more, the Earth might see a change. The positive impact on restaurants is if they chip in, the rate of thrown away trash will go down, they will get more customers and have their waste bill go down (Plastics Make It Possible). Let me also remind you that when the plastic makes its way into the ocean, ocean life eat this plastic and die because of it. Remember, we can make a change on the Earth and not have to say anymore that “The greatest threat to our planet is the belief that someone else will save it” - Robert Swan, Author.

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Ecocide: A Crime Against Creation



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Ask yourself, would you intoxicate your mother? Would you make her eat your rubbish? Would you silt her veins up? Would you burn her lungs out? Would you make your mother work for you until she is completely exhausted and has no more resources? Would you let her give you all that she has and give her nothing back? I wouldn't dare to. But this is what we're doing to our bounteous Mother Earth. Isn't it sad to think how the things of this digital age hold a vice-like grip on our lives; how the soul-crushing rat race for the almighty dollar affects our home, our Mother Earth.

The frantic world of the digital age has brought new definition to the word "noise." There's that favorite ringtone, the mere clicking on the keyboard, the loud volume of the flat screen TV due to the non-existent willpower to turn it off even when there's nothing even intriguing to watch — even the vibration of your tablet creates its own buzzing sound. What they're missing, what's being lost, is the ability to hear what is real. Ask yourself, when was the last time that you appreciate nature's deep and resonant, profoundly like a symphony of bass and percussion keys? Or the sound of water babbling down a stream, or leaves rustling in the wind, as if a Mother guiding her baby to sleep? Moreover, living in a selfie-generation where people are narcissistically concerned chiefly about themselves may make us neglect nature and the aesthetic value it harbors. Nature can set a sky aflame with its warm hues at sunset or stunningly transform a familiar landscape into a

snow-white wonderland. Nature can paint a rainbow in the sky, paint beautiful autumn colors on trees, or paint a clump of daffodils in the grass with glow of soft sunlight effortlessly. Young or old, nature is truly an intrinsic part of our lives. Beyond any doubt, this world is perceivably filled with biodiversity hotspots and have stunningly beautiful natural landscapes. But they may not count for much, when in most parts of the planet, pollution runs in total ruin. Then there's the loss of wildlife and mass extinction, when those creatures have nothing to do with their doom. We should take heed that appreciating nature is one thing, preserving it is quite another thing. For decades, this planet has been pushed to the edge by the humankind. Not knowingly that it will eventually turn on us. However, despite all the doom and gloom, in reality there are a whole bunch of incredible people doing meritable things around the world right now. When we rouse and see the glorious sunrise, when we walk and feel the gentle breeze, when we gaze at the mountains and the splendor of the seas, when we see the earth renew its beauty at each season of the year, and when the stars shine at night, our hearts are reminded of the hope embedded within us. The sight of leaves budding on a tree or seeing a tiny flower pushes through the frozen ground crunching beneath our feet, or when we smell the freshness of spring, new hope will always come to us. May these things serve as a wakeup call for us to make a move. Small things like consuming less and conserving more will surely have a significant and positive effect. There is still hope, despite how bleak the situation may perceivably seem. Our Creator has made us to be optimistic by nature, to look for the good, and to expect things to improve. Look around you — what you see is not your environment, it is a reflection of you. And although the planet may not shed a tear for the demise of technological civilization, the Earth plunged into an unprecedented environmental crisis more than ever, pleading for help. Some people feel hopeless about our situation, but feeling hopeless is the use of fossil fuels toward renewable energy, and we have seen carbon emissions begin to plateau compared to the year 2017.

Nature reveals its beauty in all places and at all times to the senses that knows how to look for it. Her beauty lies in

her complexity and equilibrium. A thing about nature is that its beauty touches the human heart as nothing else does. The lines “united we stand, divided we fall” may sound simple, yet it holds a lot of meaning. It conveys the critical importance of the lost unity in this generation. The thing about unity is that it binds us together and it holds a great power and strength to overcome and reverse the troubles we’ve bought in what appears to be our shrinking planet. Whatever nationality or culture you belong to, whatever religion you follow, we can all see that the Earth is not inert matter. The only solution left is for us to change our behavior toward the planet, radically and globally, on every level. In short, we urgently need to consume less. A lot less. Radically less. And we need to conserve more. A lot more. Let us continue to be awestruck, like a child who’s seeing the seashore for the first time, or clambering up a tree. Let us hold onto that experience, and go the extra mile as we fight for the environment that makes it possible, both for the child in each of us, and for those that come after us. Because then again, roses are red, skies are blue, change shall only start from me a cognitively associated with inaction and predicts decreased goal-directed behavior — which means when we present humanity as a hopeless victim of our own actions, we are less likely to act because the ending seems inevitable. Thus, instead of presenting narratives of helpless victims and an inevitable future of defeat, we should instead report on the environment sustainability heroes who are doing everything they can to avoid that doomsday scenario. It is pitiful sight to see how myriad of billionaires, and even multibillionaires, executives and their political and media mouthpieces are leading the human race and much of nature to ultimate demise, with little resistance towards the action of majority of people, either unaware or too unsure whether or not to resist the slide over the cliff. Right now, one thing is abundantly clear: we could use a little more peace, love, and a handful of unity in order to somehow make up for the crime we’ve done — a crime against creation. Through cleverness, we dominate the world. But at the same time, through cleverness and advancement in technology, we bought harm to our home, as if we have another planet to live. But hope stills have its place in

our hearts, for we’ve been seeing a dramatic worldwide move away from and you.

How Cooperation still influences us in the 21st century: from a Biological to a Political point of view



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It is considered, from a common belief, that the human race only ascended to its present stage through the course of Competition in the Ecological Relationships. Nevertheless, it is the opposite: this was only possible due to the process of Co-operation (Kawauchi). An example of this is Lynn Margulis's Endosymbiotic Theory, in which the mitochondria and chloroplasts — organelles of eukaryotic cells — descend from prokaryotic organisms and come to live within these cells, in favor of beneficial conditions for both beings (Margulis). This symbiosis is also present in several other natural aspects of planet Earth, such as the association of fungi and algae — forming lichens by Mutualism — or in the dependence established, for example, between pollinating trees and animals like Clark's nutcracker and the Whitebark pine: the bird extracts out the tree's seeds, storing it in her throat in order to cache inside the soil so that after the animal get fed, a new tree can grow back with the remaining seeds (Gonzales). These bonds prove that cooperation when due to the evolution of nature, overlaps competitiveness.

Another example of this kind of mutual help is Man's journey into space. The Apollo Project — a set of missions designed to land humans on the Moon and bring them safely back to Earth — had a great group of people behind the historical feature mastered by Neil Armstrong's image and the American flag. Besides having a team attending the astronaut, there was a unit of scientists on Earth coordinating missions and fixing minor errors that could have occurred (Seeker). Until the emblematic moment of the eleventh mission, it took NASA many attempts and mistakes for the man to finally reach his desired goal. Besides the cooperation between the Americans themselves, there was a brief meeting between The Union of Soviet Socialist Republic and the United States of America — a historic moment due to the Cold War — by the Apollo-Soyuz mission, in which a Russian implement attached to an American (Howell). Hence, the project marked the beginning of cooperation among the two superpowers proving, once again, that alliance can overcome obstacles, and even break short truces between two nations.

In a globalized world, it might seem unlikely to see the human being acting so focused on himself that the society he lives in is forgotten, however, nowadays is quite common to observe big and powerful countries encouraging its population to compete and think in an individualist way such as the United States, Canada, and even the United Kingdom. This kind of thought is usually more common on the West where the population tends to put their own needs ahead of the group, and the same thing happens as well in the work and business world: individual achievements and self-promotion is accepted and encouraged in these nations (Parsons). On the other hand, the East has references for being collectivist: governments like China, India, South Korea, Japan support the citizen to be an active member of his world and do what is best in society as a whole rather than themselves. Collectivist countries promote unity and selflessness putting everyone's needs up in an equal way, creating central roles, respect and interdependence while causing fewer conflicts since everyone is in harmony (Cherry). Although every individual uniqueness is important, people tend to think and act better when they come together as one: Marie Curie, for example, found interesting and important

discoveries about Radiation together with her husband, Pierre Curie and a friend, Henri Becquerel, receiving and sharing a Nobel prize (Seeker). In 2015, a group of scientists participated in a research conducted by Xue-Bing Wu, who discovered a black hole in space that brought back the attention of the Early Universe theories (Lemonick). Although Wu managed and led the research, it could not be likely to occur without the help of his scientists and team. Even though an individual can develop his ideas, it is unlikely to happen without the support of other people.

It can also be mentioned the creation of the United Nation's environmental deals and conventions — beyond, of course, the Organization's creation itself — such as the Paris agreement and Kyoto Protocol, which both aim to preserve the environment. These measures were taken to encourage the decrease of greenhouse gases emissions and for countries to take action in favor of sustainable development. This purpose can only be achieved with the industrial and technological transformations of all the countries around the globe — or at least those responsible for the outstanding damage — attesting again that if nations cooperated between themselves, it would lead humanity to handle Nature in the way it should.

Furthermore, there is also the Economic blocs' creation. To promote trade between the members, the Bloc can reduce and also eliminate import and exportation expenses and taxes among the members. In an attempt to expand the consumer market, nations aim to integrate economic blocs that will make trade relations more flexible on an international scale. The creation is not only restricted to the reduction or annulment of tariffs, but it can also provide free movement of people between member countries of a particular bloc just as the European Union and Mercosur (Southern Common Market) do in their policies. This kind of production helps countries and continents to develop themselves and also protect their economies by providing jobs to the population and investing locally. The United States and Mexico, nations which are usually portrayed to be in bad terms, declared an alliance in 2005 through NAFTA (North American Free Trade Agreement) to tighten their border security willingly, both

countries were benefited for their actions: the USA protected its "economic space" and paid Mexico for its efforts, reinforcing the diplomatic ties between the two nations (Sherman).

Therefore, the myth that for the human being to evolve as an individual is required no less than the overcoming of its challenges through the course of Competition — this can also be seen in school and work environments — is placed against Cooperation, which creates a healthy situation for the two or more beneficiaries of the Relation. This fact can also be recognized and proven in Biology, in the form of Ecological Relations, and even on famous deals that affect the Earth's biggest leaderships like the Protocols and Economic Blocs created for the mutual benefit of nations. Furthermore, when society gives the individual a chance, it gives him the opportunity to improve and create his ideas while he collaborates to the World. Just like expressing the individual's mind is important, sharing the ideas and creating a new perspective for the future generations should also be encouraged and embraced for a decent planet Earth, since we can only make changes and progress if we come together as one and not stand just by ourselves..

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The Utmost Importance of Collaborative Efforts



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In our everyday world, symbiosis establishes the critical interconnection between earth and humans. From the partnership of mitochondria and cells to fungus-farming ants in South America, species thrive on their connections to one another. Therefore, the dwindling of one resource impacts the whole. With today's depleting natural resources, it's more important than ever to reinforce and support this symbiosis. As Cain Landry cites, "Our connection with the natural world, how everything connects, and the dangers of overstepping nature's boundaries [requires] ... a practical means of reducing our negative environmental impact on the planet" (David Suzuki Foundation: One Nature). We, as a human species, have detrimentally harmed our one and only earth, creating a bleak reality for future generations unless we act in a collaborative fashion to address growing global issues. Past collaborations of humanity have created great things, such as solar panels, wind panels, and nuclear power plants--all of which have been instrumental in creating alternative energy sources that can sustain our planet. According to Yale E360, nations around the world increased the global solar market by 98.9 gigawatts of new capacity in 2017 (The World Added Nearly 30 Percent More Solar Energy Capacity in 2017). The same source states that this 98.9 gigawatts represents a 30% growth in only a year. Although there's still significant room

for growth, such examples show our contemporary global society of great things-- and we can do better.

As we become more interconnected through technology and economies, it's essential to note how great problem-solving relies on the exchanges between individuals, rather than individual success. One key example of great collaboration is the Apollo 13 mission. On April 11, 1970, Apollo 13 smoothly launched into space. The launch was so uneventful that "at 46 hours 43 minutes Joe Kerwin, the CapCom on duty, said, 'The spacecraft is in real good shape as far as we are concerned. We're bored to tears down here'" (Apollo-13 (29)). However, at nearly fifty-six hours into the mission, an oxygen tank exploded and the crew's carbon dioxide threatened to poison the cabin (Apollo 13). Though Apollo 13 infamous phrase, "Houston, we have a problem," lives on, it does not do justice to the seemingly insurmountable hurdles both the astronauts and the crew faced. From coming up with new procedures on the spot and testing them before giving the crew instructions, the ground team exemplified how collaboration can be life-saving. This mission serves to demonstrate the great, unexpected outcomes that can occur when humans work together.

While the Apollo 13 mission demonstrates the essential nature of collaboration in times of crisis, the Human Genome Project (HGP) embodies how long-term collaboration can ultimately benefit the whole of society. Beginning in 1990, an international, collaborative research program set out with the goal to complete the mapping and understanding of all the genes of human beings" (An Overview of the Human Genome Project). Their journey to identify 20,000-25,000 genes in human DNA forever changed the field of medicine. Though this 3 billion dollar project took over a decade to complete, the final publication of the HGP in April 2003 paved the way for the accurate and effective tracing of human genes. The project's benefits were quickly noticed in late 2002 and early 2003 during a worldwide outbreak of severe acute respiratory syndrome (SARS). With a death rate of 9-12%, this epidemic drew attention from the World Health Organization and worldwide media (Fox, Joanne). Within ten days, the

Vancouver Genome Sciences Centre sequenced 29,751 base genome and released this information to the public— an amazing feat. Since then, this data helped identify the origin of the disease and contributed to controlling the outbreak. Thanks to the international community that led to the HGPP, future generations are able to live in a medically-advanced, safer world.

Today's global society faces a reality that resembles both Apollo 13 and the Human Genome Project. On one hand, we must act decisively to combat growing issues relating to climate change that immediately impact our society. On the other, we must focus on collaboration that protects future generations. In regards to the entire world, collaboration is of the utmost priority. And one of the most essential collaborations to battle climate change is the Paris Agreement, which is “an international plan to keep global temperature rise well below 2 degrees Celsius... [in this century]” (The Paris Agreement). With over 195 countries in the agreement as of February 2019, this demonstrates a collaborative world effort to deter climate change. Since this international effort, clean energy investments reached \$329 billion and renewable energy investment expanded twice than that of coal and gas (The Paris Effect: How the Paris Agreement is Driving Climate Action). Such progress could not have happened without the interaction between nations as a whole— highlighting the importance of such relationships. Though the United States has withdrawn from the Paris Agreement, it is essential that countries continue to push forward in this collaboration.

The Paris Agreement marks the recognition that in order to protect and preserve the symbiosis of all life, humans must start with our own— human relationships— and make instrumental impacts. Michael Shellenberger, an environmental advocate, presents a plan to save nature in his Ted Talk (How Humans Save Nature). As of the early 21st century, nature is divided up into the following groups: 53% nature, 3% cities, 9% wood, 12% crops, 24% meat (How Humans Save Nature). These numbers show that roughly half of the world's nature isn't devoted to nature itself but used for other human necessities. As more people migrate to the cities, have

children, and eat meat, these processes take away our limited natural resources. Shellenberger therefore strives to find better ways of life, such as more efficient energy sources to accommodate to our society. He argues the importance of transitioning from wood to fossil to nuclear energy, which is both controversial and environmentally beneficial. Along with this change, he strives for smaller and smaller families with one to two children— an effort to keep the human population in check. He predicts that that plan can reorganize the previous statistic, leaving 75% of nature for nature, 6% for cities, 3% for wood, 6% for crops, and 10% for meat. Shellenberger emphasizes that this monumental change can only happen with the unification of all peoples.

As shown with Apollo 13, Human Genome Project, and Paris Agreement, human interactions make monumental change. None of these accomplishments would have been possible if not for the collaboration of humans. When humans peacefully work together, the entire world benefits. The heart of such interaction argues that continued collaboration is of utmost importance. Only with the help of one another can humans successfully accomplish great things.

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Writing the Future Together



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"The world is ancient. The world is immense. The world is precious. The world is beautiful. It's not just people that are interconnected but all the living things in the planet are interconnected. And that is unmistakable" (David Suzuki Foundation). As Chris Hadfield asserts, the continually evolving living beings have shaped our planet Earth throughout the past millions of years. Species have depended on each other for survival in a variety of habitats, leading to the rise and fall of species throughout Earth's history. It is important to remember, however, that out of these millions of years, Homo sapiens has only been around for the last thousands of years, but the ecological footprint that our ancestors and ourselves have left on our home has been immense. However, whether we believe it or not, all members of the Homo sapiens are interconnected to both each other and the world around us. And when all of them come together, we can do anything to write a new future of the beautiful planet we live in.

Referring back to Hadfield's quote, all of the living beings habituated in different parts of the globe are connected in some way. The ecosystem is a cycle between the different types of living things contributing energy and matter to other living things. Simply put, producers, such as plants and algae,

undergo photosynthesis to produce oxygen and energy that the primary, secondary, and tertiary consumers consume. However, Sal Khan reminds us that the consumers, which receive the energy from the producers, actually provide the carbon dioxide that the plants and algae use to supply the very energy that is used by producers and consumers (Flow of Energy and Matter). An exchange of carbon dioxide and oxygen between the producers and consumers, whether it be asters and roe deers, sustains the ecosystem at this moment and has done so for the past millions of years. Furthermore, the decomposers, such as the fungi, break down the producers and consumers after their life cycle to return inorganic chemicals to the producers and consumers. All species essentially depend on each other for our daily lives.

At a smaller scale, specific relationships between species contribute to the biological world. Through a concept called symbiosis, two species rely on each other for all kinds of necessities in their lives including reproduction, nutrition, and movement. For example, two species can mutually benefit through a mutualistic relationship like that between the Clark's nutcracker and the white bark pine. Clark's nutcracker buries the seeds of the white bark pine to last through the harsh winter, and what remains of them grows to become white bark pine saplings (Flow of Energy and Matter). In this manner, species can become interdependent on one another, and without each other, their survival would become much more difficult in the face of many challenges in their environment. Even commensal and parasitic relationships, in which the benefit of one species result in neutral or negative effects (Anderson), maintain the populations of different species in the food chain so that the pyramid of life, with producers on the bottom and the tertiary consumers on the top, is supported within every ecosystem. We do not have to imagine how an inverted pyramid of Giza would look like to understand that the structure is delicate and rapid changes can make the whole ecosystem teeter.

All of these technicalities show that the multiple ecosystems around the world all culminate in one biosphere. Within this system, the species all interact to help the cause of

survival and continuance. Even so, here is the critical question: how about humans?

Many people feel that humans are not collaborating. Although thousands of vastly different non-Homo sapiens beings are focused on working together for the cause of interdependence within an ecosystem, one single species with 7.5 billion people have thousands of various purposes on which they base their actions. People discuss how, throughout the last few centuries, most of these purposes have promoted the rapid development of human civilizations. The last 150 years with a “pollution-based economy” (David Suzuki Foundation) has pushed other species out of their original habitats and changed the climate of the globe at a pace far faster than the ‘normal’ of the millions of years. More people around the world live in cities than those in rural areas. Even one hundred years ago, this would have been unimaginable, yet here we are.

Given the scale of the problems, many people talk about the issues of climate change and pollution of the environment as unavoidable, inevitable, hopeless issues that we cannot address. Many may think that one person’s actions will not affect what they see on their TV, with headlines after headlines about climate change and pollution. What air they breathe, what water they drink, or what food they eat. However, the truth is that we all live on planet Earth and are connected to each other no matter what we believe. We all are part of one species and link our lives to other species with which we share the planet. We join ourselves to the complex web of symbiotic relationships around the globe. And we are capable of taking individual actions into a massive change in the future of not just any place, but our home.

What’s more, people in different communities are already working on the idea of collaboration. The Human Genome project involved the cooperation of scientists from many different countries including the Department of Energy, the National Institute of Health, and the National Center for Human Genome Research (How Collaboration). This collaboration project also motivated others such as the

International Rice Genome Sequencing Project, which involved the collaboration of 10 countries such as South Korea, Japan, China, UK, and the US on specific parts of the rice genome (Eckardt). Outside the scientific field, media outlets such as the National Geographic share mesmerizing and shocking scenes in the natural world through the photos submitted by people, such as polar bears on small pieces of ice.

However, the start of this movement needs to stem from the youth. Environmental problems are not just complex statistics and data for the experts. These are problems will escalate into the future of the young people today, with each of us making up a portion of the society. Whether we become farmers, teachers, or scientists, what we do matters today in the future of the ecosystem of all species, including humans. You might think that you are only one young person who cannot make a change and what you do does not matter. However, you can make change even as a young person, with your actions and habits. We do not have to wait until we become changemakers in the future because we can become changemakers today.

Some of the most inspiring teenagers that I have met are the Wijsen sisters, who are the founders of the youth-led organization Bye Bye Plastic Bags. The two sisters in Bali founded this organization with the objective to raise consciousness in Bali about plastic bag consumption after seeing that even small children in a village were burning plastic bags thinking that it was beneficial for the environment. The Wijsen sisters ended up educating people in that village and in many other places in Bali about the harms of burning plastic bags. They now have 25 teams in five continents continuing their initiative and collaborating (Bye Bye Plastic Bags), all motivated from the perseverance and courage of the two sisters who had a dream that their actions could eventually change the world.

They have also motivated many teenagers around the world through their Keynote sessions to take action on issues they are passionate about, including me. I was inspired from their projects to lead a No Plastic is Fantastic campaign in my

high school, producing awareness videos to be shown and throughout the school and gathering support from student-based councils, faculty, staff, and parents in a proposal to ban all disposable plastic water bottles. As a result, I can see some people who previously used disposable plastic bottles filling reusable water bottles in water fountains. I firmly believe that, if it weren't for the actions of courageous individuals such as the Wijsen sisters, I would not have found the courage to work with my peers in communicating to the entire student community about the importance of this issue. Countless other examples support the capability of the youth: the letters to the White House by students concerned about climate change. The petitions for the preservation of wetlands that young people lead on the streets. The knowledge that the youth share through social media and campaign activities.

As Ashleigh Ball, an artist, asserts, “when you see someone that is doing everything they can to protect the place they love, it creates a ripple effect” (David Suzuki Foundation). I also believe that it creates a circle of good. The power of the humans to upset the ecosystem of the world in several decades shows that it is possible to change it for the better, one action, one person at a time. If everyone can change one practice, we would be able to leave a better world for not only ourselves but also the other species we share this beautiful globe with, reviving the circle of good. And through this circle of good, we need to make sure that the Earth and its natural environments available for the future generations to enjoy and appreciate.

We all have the power to write the future together.
How will we use it?

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People Together Strong



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Anthropologist Margaret Mead once said, “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 Quotes”). Even now, when humanity faces rapid climate change resulting in catastrophic “storms, sea level rise, and flooding” (“U.N. Report” :33-35), it is important to remember to work together. Whether it is through electing government officials with positive goals or by educating others, great things can happen for the Earth when ordinary people strive towards a common goal.

A guaranteed way that any large group of people can help the Earth is by gaining the support of their government. Today, more than half of the world’s governments run on some form of democratic system (Jiménez), meaning that any unified group with enough supporters behind it has the power to influence how their country is run. As evidenced by the rise in support for the environmentalist Green Party of German politics (Schütz), more and more people are voting for government representatives who support sustainability of resources and helping the Earth (“WerWir Sind”). Holders of government offices who work against public interests can also be removed in countries such as the US and UK through what is known as a recall vote, allowing citizens to replace them

before their term is completed (“Initiative, Referendum and Recall”). By casting votes for representatives in favor of nuclear energy, which provides “reliable power 24 hours a day, 7 days a week” (“How Humans Save Nature” 17:13-18) with “zero pollution” (“How Humans Save Nature” 16:42-45), people can strengthen the symbiotic relationship between themselves and nature. Another way the US government allows groups people to work together to better their relationship with the environment is through initiatives. Initiatives allow citizens to bypass their state legislature to create and vote on their own bills (“Initiative, Referendum and Recall”). A copious number of initiatives have been proposed so far with the goal of protecting and promoting the beauty of nature. The “Washington Energy Conservation Initiative” of 2006, for example, along with the “Colorado Renewable Energy Requirement Initiative” of 2004, were both created and approved by citizens who came together to encourage the widespread use of renewable energy sources (“Environment on the Ballot”). Similarly, the fairly self-explanatory “Massachusetts Ban on Gillnets and Commercial Fishing Gear Known to Entangle Whales or Sea Turtles Initiative” could soon appear on the 2020 ballot (“Environment on the Ballot”). Well-organized people with a common goal can sway their governing bodies to create a more Earth-friendly future.

When people want to bring about change, they need not rely solely upon the government to make things happen. In fact, countless environmentalist organizations exist devoted specifically to combating and spreading awareness of the harmful effects people have on nature. The Environmental Defense Fund is just one of these noble organizations, working to provide a financial incentive for companies to become more environmentally friendly (“Economics”). Realistically speaking, positive change is never going to happen unless it is in the best financial interests of the Googles, and the McDonalds, and all the other big and powerful corporations of the world. As with many of life’s problems, the environment’s biggest troubles require money to solve. This is where regular people can help out; By spending even a little less money on those cheap products with plastic packaging and instead donating it to organizations such as the EDF and the many

others like it (Callaghan), people can work together to help fund a cleaner and more sustainable future for themselves, their children, and the environment. People might also choose to boycott the companies that do not meet their “eco-friendly” standards. Overall, environmental organizations and the regulation of these complex business-consumer relationships point the way towards a better, greener future. That is, as long as people continue to favor keeping the environment green. One major problem with gathering support for any environmental movement is that those who are unaware, uncertain, or unconcerned with the serious threat posed by climate change and pollution will never move on from their environment-destroying behaviors and make a difference. Thankfully, there are people and organizations working together to teach others about how to cut down on the amount of plastic and carbon waste they produce. The members of SEALOEarth have the mission “to heighten awareness of the responsibility of all people to manage global resources in a sustainable way, regardless of an individual’s country of origin, cultural background, spoken language, or religion” (SEALOEarth). Once every child, parent, and grandparent is finally on the same page when it comes to protecting their planet, and SEALOEarth has fulfilled its ambitious mission, real change can take place. By working together, people can educate others, fund organizations, and write essays that positively affect the Earth.

When people cooperate, the Earth prospers. Alone, a single, solitary person has no control over society or how its people take more from the planet than they can give back, but when people stand together, they can sway governments, they can fund change, and they can enlighten the minds of those around them. Margaret Mead could not have been more truthful when she said that change can only happen when people work together.

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Collaboration: The Answer to Environmental Problems



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Collaboration: the notion of bringing people together to share opinions and thoughts socially; the concept of breaking up tasks and sharing perspectives with one another, standing on each other's shoulders to accomplish a goal ("How Collaboration" 00:00:41-00:02:04). This word is the answer to all our environmental problems. Together on our planet, we have a population of seven billion people. Seven billion possible perspectives on problems. Seven billion different views that could potentially save our planet from hardships and obstacles. Seven billion different opportunities to change our world for the better. We, as humans, have the ability to recombine our ideas to create bigger, better and faster solutions for a more sustainable future.

Even in today's world, humans have a critical relationship with nature. Nature is our greatest ally; we are very dependent on her - though sometimes we seem to forget that. She gives us the oxygen we need to breathe, the food we need to eat, and the water we need to drink ("One Nature" 00:00:39 - 00:00:47). However, in a stable virtuous relationship, both sides must benefit. In other words, humans and nature must participate in the process of symbiosis, which is interdependence between different entities ("Symbiosis" 00:00:22 - 00:00:30). Unfortunately, this is not occurring;

instead, nature is being sacrificed for our happiness. In the past 150 years, our economy has produced vast amounts of pollution, creating an imbalance to this web of interdependence on Earth ("One Nature" 00:01:01 - 00:01:10). According to Chelsea Harvey, an environmental health reporter from the Washington Post, air pollution generated from energy production in the U.S. caused around \$131 billion in damages in 2011 alone and in 2002, the damages totaled as high as \$175 billion. All of the success of the human species has come at a high natural cost ("How Humans" 00:00:42 - 00:00:49). And now nature is reacting; floods, famines and extreme weather events are now the new normal. Instead, we now need to revere our home, recognizing all our planet provides.

We must work with one another to pay respect to our planet by creating a ripple effect of solutions that point in the direction of a sustainable environment ("One Nature" 00:02:01 - 00:02:06). It is our duty to our home, to our Mother Earth, that we do everything in our power to return balance back in the natural world. As of right now, Mother Earth is degrading rapidly because of the rapacious over-consumption of natural resources by humans to fulfill their need for energy and other necessities. As social environmental activist, Cain Landry, points out in his TEDx UMaine Talk, what we do as a human species affects the Earth in various ways.

According to Jenny Green, our common ways of transportation (cars and trucks) contribute to "one-fifth of the United States' total global warming pollution" because of the carbon dioxide emission (through fossil fuels) and the spreading of other greenhouse gases. As Margaret Evans on CBC News Network said, "The liveability of our world is at stake" ("UN Global Warming" 00:00:19 - 00:00:24). Since these greenhouse gases confine heat in the atmosphere, worldwide temperatures increase. Back in 2018, it was noticed that burning unnecessary amounts of fossil fuels, such as gasoline and diesel, had caused an increase of 0.6 degrees Celsius, or 1 degree Fahrenheit, in global temperatures since pre-industrial times (Green). This has increased the number of natural disasters on Earth, cause difficulty for organisms' survival, and would create a block our planet's growth.

However, there is a solution to the emission of carbon dioxide and greenhouse gases from vehicles. One could own an electric car. The benefits of an electric car are that it runs fully on batteries and no toxic fumes are released into the air. An alternate solution to this problem would be that chemists and engineers could come together to find an alternate resource that could power cars but at the same time not negatively affect our environment. The government would have to take part in this process because for electric cars to be produced, they have to fund these kinds of projects. And to do this, the government would have to create tax incentives for the consumers. This would mean that when the car is bought, the consumer would receive a rebate for purchasing it. Along with buying the car, the consumer would also have to be willing to put a charger somewhere in their house since it now runs on batteries. But for all of this to become a reality, the car manufacturers have to make these models of cars. Once all these groups of people come together under the same purpose, a ripple effect will take place. The government would affect the consumers who would affect the car manufacturers. And this would manage to stop the noxious gas emissions from spreading into the Earth's atmosphere.

Ideas like this cannot just linger in individual cities, towns, and countries; it has to create ripple effects throughout the rest of the world to get the Earth back on her feet. As a result of these ripple effects, other people are capable of coming with innovative thoughts because they were inspired by those views. All around the world, many people have been trying to solve this lifelong problem through collaborating with different types of people. However, what's done around the world should also influence everyone else who is not taking part in that action to do so. Discovering and manufacturing more efficient energy sources are ways that will slowly end global warming.

Germany is a perfect example of what we want to promote in our modern-day world. They are known to be one of the most energy-efficient countries in the world as of right now. Their objective is to get rid of all of the country's global warming and greenhouse gas emissions to further protect their

climate. As a result, this country has launched a renewable energy revolution: Energiewende. Energiewende is a program created as a dual shift from fossil fuel in nuclear power to a renewable-based energy system ("Electricity Trade"). This program has managed to power the industrial economy fully on solar and wind energy. Big electricity generators have been replaced by the new solar power which has been put into all communities and companies. And according to data provided by the Federal Network Agency, wind power alone has produced about 85% of Germany's power consumption. Because of the implementation of turbines, wind power has stripped away the importance of coal and nuclear had held. Thanks to the engineering skill of the country, the architectural designers, the innovative scientists and many more, Germany becoming the world's first major renewable energy economy has become a reality.

We must picture the world as it was before, imagine as it was before the Anthropocene when man took over and apply that to our world today to create a new reality. We have no greater friend than our Mother Earth; the only place the human species can survive. It only makes sense that we show her the same reverence through collaboration. Even with the world experiencing global warming, collaboration is what is saving us. The seven billion minds Earth has are finally collaborating with one another to save our planet. Motivation to perform such life-altering actions arise from the concept of collaboration. Collaboration is how the problem of energy production will be solved.

The world possesses excellent and exceptional minds that are conceptualizing and constructing environmentally friendly options for our Earth. It is recognized that at this point, there is true power behind the seven billion ideas put forth in the world. These brilliant minds together decided to discover new sources of energy. Identifying alternate energy sources will most definitely be beneficial and should be replicated around the world. Humans must provoke a virtual tidal wave of innovation to occur. The operations that have been conducted in Germany must also be considered for the rest of the world: everyone could and should start using renewable energy. Our

world is finally coming up with astonishing and amazing solutions that will solve environmental degradation. Our world is finally appreciating the gifts nature has presented us with. And all through collaboration.

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Appreciation

It gives us immense gratification to know that SEALOEarth is making a difference around the globe, one individual at the time, after receiving a feedback such as this:

Dear Dr. Hiremath,

Thank you for this opportunity! I have no words to describe how happy I was to participate in the SEALOEarth Global Essay Contest 2019, it was the first time I had the chance to compete in an Essay Contest and the topic was important to me in uncountable ways: it raised awareness in my daily life, confidence in my writing skills - since English is not my first language -, and the topic really made me think about the Planet Earth in a different mindset. Thank you! I will wait for the certificate excitedly and thankful for the opportunity and also the help you provided me in the beginning when I asked about the bibliography.

If SEALOEarth ever needs any help or support here in Brazil, please don't hesitate to contact me. I will be more than happy and honored to take part in the actions of a brilliant organization.

All the best,

Estela.

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SEALOEEarth's mission is to heighten awareness of the responsibility of all people to manage global resources in a sustainable way, regardless of an individual's country of origin, cultural background, spoken language or religion.

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