

*What On Earth
Are You Doing?*



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Introduction

“The only thing necessary for the triumph of evil is for good men to do nothing.”

- Edmund Burke¹

“We have now become a threat to our own existence. In this situation, it is just as dangerous to believe that ‘the experts will sort it out’ as to shrug, and say ‘we’ve had it, anyway’. It’s not a case of ‘evil people’ wanting to destroy the natural environment and ‘good people’ defending it. Good and evil live side by side in us all. What each of us needs above all else is a worthier, more meaningful concept of reality. One that embraces all life on Earth, the Earth that we are all a part of and dependent on. We didn’t inherit the Earth from our parents. We have borrowed it from our children. We have all borrowed it and we are all going to hand it back.”

- Author unknown

What on Earth are you doing? Your answer to this simple question has far-reaching consequences for our future generations, so take some time to think about your answer. Start by asking yourself:

What on Earth am I doing **to the environment**? Humans have progressed over the years and are always obsessed with the pursuit of better lives. Unfortunately, in our relentless quest for a better life, we have manipulated our surroundings and the environment to suit us. According to data from the [United Nations Population Division](#), the human population has increased from about 2.5 billion to 6.5 billion over the past 55 years². This increase in population has resulted in a world where more food is needed, more resources are depleted, more natural space is converted to housing, and more waste is generated. Forests are cleared to build our cities; rivers are dammed to provide electricity; oil and minerals are mined

and extracted from the land.

We have better lives now so you may ask, “What is the problem then?” Well, the problem according to the [Millennium Ecosystem Assessment](#) conducted by the United Nations is that:

“Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fiber and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth. The changes that have been made to ecosystems have contributed to substantial net gains in human well-being and economic development, but these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people. These problems, unless addressed, will substantially diminish the benefits that future generations obtain from ecosystems...”³

Everybody wanted the best for themselves and has been selfish in their thinking. A civilisation that does not recognise its place in nature and the importance of benefits for all instead of a selected few will unfortunately face extinction. Jared Diamond in his book, *Collapse*, explains how past civilisations have collapsed and become extinct due to selfish and unsustainable use of resources and destruction to their environment⁴. The fate of mankind depends on whether we recognise that we are a part of nature and what we do affects the rest of nature and our own survival as a species. If we choose to benefit ourselves over nature and disregard our harm to the environment, then we are heading towards our own destruction. What is important now is that we should not carry on as usual. As we become increasingly aware about our impacts on the environment and the problems caused, we realise that something has to be done sooner or later.

What on Earth am I doing **for the environment**? Many of us lament that we do not have sufficient time to live our life, let alone care about the environment. Some give excuses that they do know about the environmental problems, it is just that there are other more important things in life like work, family, friends and money that call for their immediate attention. In addition, some environmental problems would only occur in the future. We

choose to ignore problems that do not happen in the near future or if we do not see the immediate impact on us. Perhaps, it is time to heed the words in the David Suzuki Foundation's Declaration of Interdependence, which says, "We are one brief generation in the long march of time; the future is not ours to erase."⁵ You can do something for the environment and help to ensure that our future generations are not worst off.

If you are interested about what is happening to the environment and want to do something for the environment, this book makes it easier for you. A six-step plan is proposed to help you increase awareness and knowledge about the environment, and to take action to improve and protect the environment, thus creating a sustainable future. The six steps include:

1. Respect all life and renew your bond with nature and its biodiversity (Self)
2. Improve your environmental awareness and knowledge (Self)
3. Practise the 3 "Rs" – Reduce, Reuse, Recycle (Self)
4. Spread the environmental message and influence others
(Family/Friends/School/Work/Group)
5. Support local environmental initiatives and groups (Community/Local Environment)
6. Use your rights as citizens and consumers (Community/Local Environment)

The steps begin with first developing your "Self" by respecting and renewing your relationship with nature and its biodiversity, improving on your understanding of environmental issues and knowledge, and taking personal actions to reduce wastage and overconsumption. Next, move on to influence your "Family/ Friends/ School/ Work/ Group" by spreading the environmental message to others such as family members, friends and colleagues, and convincing organisations that you belong to, such as schools, companies, religious or social groups, to be environmentally friendly. Lastly, go one step further to shape your "Community/Local Environment" through supporting environmental initiatives by the government and environmental groups, volunteering or participating in activities organised by the groups, and exercising your rights as citizens and consumers to influence the status quo on the environment.

You can follow the six steps or choose a few steps to do something for the environment. The steps are not complete and are only a guide to help you make the first move. Under each step, there are also small steps that you can take action upon immediately. It may be easier to achieve those steps than to lose weight or earn your first million. I have also set up a companion blog to this ebook that expands the information here and includes updates, news, and my personal thoughts on the environment. My blog's address is <http://whatonearth.wordpress.com>. You are invited to share your thoughts and actions on what you are doing for the environment in the blog.

What on Earth are we doing? I hope that you remember that we are all part of this planet and each one of us has a responsibility to protect it. As Buckminster Fuller puts it: "We are not going to be able to operate our Spaceship Earth successfully nor for much longer unless we see it as a whole spaceship and our fate as common. It has to be everybody or nobody."⁶

One

Respect Life and Renew Bond

“The first aim of education should not be to prepare young people for careers, but to enable them to develop a respect for life.”

- Norman Cousin⁷

“We cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well – for we will not fight to save what we do not love.”

- Stephen Jay Gould⁸

I believe that all life are interdependent and have a right to live on this planet. Humans have evolved to a stage where we are doing harm to nature and its biodiversity. We need to improve and protect the environment so that we can live in co-existence with nature, preserving the earth as home for future generations of humans and other living beings. The first step is to develop a respect for life and renew our bond with nature and its biodiversity. Nature has much to teach us on how to live and be better neighbours with the rest of life on Earth.

In recent times, we seem to have developed a human-centric view that humans are at the center of the world and where nature and other organisms revolve around us. There is an increasingly loss of respect for life, nature and its biodiversity. Their only value seems to serve as food and resources for us to exploit and enjoy. On top of that, there is also a trend towards individualism. We care more about ourselves and to a certain extent, our immediate family and friends. Our personal gains tend to outweigh the overall public interest. [The Tragedy of the Commons](#) as pointed out by Garrett Hardin in his famous paper, becomes

inevitable if humans choose to ignore overall interests and focus on individual benefits. According to him: “Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.”⁹

As we regard ourselves as separate or superior to nature and other organisms on this planet, it inevitably causes us to lose our bond to the rest of life on this planet. We fail to remember that we are only one species out of the millions that share this planet. Are we so unique and superior? Even if we are, that does not give us the right to disregard the rest of the biodiversity that lives together with us on this planet. Humans are actually dependent on biodiversity – from microorganisms in our body that helps us to digest food to trees that take in carbon dioxide and produce oxygen. We have to see nature and its biodiversity as coexisting with us and not below us.

The urbanisation of society has also resulted in the increase in distance (physical and mental) between humans and nature. What surround us are buildings, manmade structures or artificially created green spaces. The only animals we see frequently are domesticated pets and birds. The appreciation of nature comes only as an afterthought when it is time to relieve stress or go for a holiday.

Why do you want to improve or protect the environment? You must first identify your own reasons to be concerned about the environment, be it personal, good or selfish. Without an answer, you will not be committed to take action. There are several reasons why people want to protect the environment. Some do it for the sake of preserving the Earth as home for their children and future generations. Some do it to improve their current environmental conditions. Others do it because they respect nature and its biodiversity, which they consider as sacred and that humans have no right to destroy them.

Regardless of the answer you give, it should include a respect for life. Everyone should develop a respect for nature, plants, trees, animals and all the biodiversity found on Earth. Developing respect means recognising and remembering that all living things have a right to live on this planet and a purpose in life. We should treat all living things as part of us

and do no harm to them. This is described aptly in [The Earth Charter](#), “Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings.”¹⁰ Without this respect and love for the environment, there will be no desire or wish to improve and protect it. Therefore, it is important that you first develop a respect for life on this Earth.

Humans have a bond with nature as described by the renowned biologist, Edward O. Wilson’s concept of biophilia. This phenomenon of biophilia is “defined as the innate tendency to focus upon life and lifelike forms, and in some instances to affiliate with them emotionally.”¹¹ Humans seem to enjoy natural landscapes, animals and other living beings around us. We feel at ease with nature, and travel to explore the natural habitats and its occupants. One possible reason given to explain biophilia is that our ancestors came from the savannah and spent their lives with nature. So we seem to retain their instincts and prefer the natural world.

If biophilia is part of human nature, we should not lose that special bond. It is time for us to renew that bond with nature and its biodiversity. As Janine M. Benyus, author of *Biomimicry* reflects, “It is time for us as a culture to walk in the forest again. Once we see nature as a mentor, our relationship with the living world changes.”¹² A good way to renew that bond is to start appreciating nature and the life around you. If you would like to explore the nature areas in Singapore, the websites of the [National Parks Board](#) and [wildsingapore](#) gives several good locations. These locations include: Sungei Buloh Wetland Reserve; Pulau Ubin; Labrador Nature Reserve and Bukit Timah Nature Reserve.

Guided walks are conducted for some nature areas and I would recommend you to go for such walks to gain more knowledge about the particular area. Some people are mistaken that Singapore is too small to have any nature areas worth visiting, but the biodiversity in these small areas are still an eye-opener if you are willing to spend some time there.



Develop a respect for life and renew your bond with nature and its biodiversity

small steps



- Log on to the wildsingapore website
- Check out nature activities under “Wild Happenings” at the left side of the website
- Sign up for a guided walk to a nature area
- Make a commitment to visit at least one nature area every month

Two

Improve Awareness and Knowledge

“If we do not understand the problem, it is unlikely we will be able to fix it.”

- Carl Sagan¹³

“Man can hardly even recognise the devils of his own creation.”

- Albert Schweitzer¹⁴

If you want to do something for the environment, it would be good to first improve your environmental awareness and knowledge. That would include reading up on local and global environmental issues. What are the current environmental trends and problems? What needs to be done? What issues are you interested in and believe you can do something? Ideally, a holistic view on the environment should be adopted so that the connection and interdependence of various environmental issues and problems can be understood.

In the pursuit of environmental awareness and knowledge, we should not be misled or blinded by false environmental claims or “the sky is falling” scenarios. By learning about environmental issues from reliable sources and from those supported with data or references, we could then judge for ourselves on the validity of the environmental problems and the possible solutions. It is too easy to exaggerate facts and mislead the public, especially when it involves technical or scientific issues. As Jack M. Hollander in *The Real Environmental Crisis* said, “performing the role of environmental watchdog does not confer license to exaggerate, mislead, or strike fear in the hearts of a largely supportive public earnestly looking for information and guidance”¹⁵. Or as Bjørn Lomborg puts it in *The Skeptical Environmentalist*, “if we are to make the best decisions for our future, we should base our

prioritisations not on fear but on facts.”¹⁶

To increase your environmental knowledge, you could start by looking at the relationship between ecosystems and human systems through the discipline of environmental science. One recommended textbook on environmental science is [*Living in the Environment*](#) by G. Tyler Miller, Jr. In his book, there are also concept maps that give a good summary on the connections between ecosystems and humans.

In my opinion, the impact of humans on ecosystems can be summarised in three environmental themes. The impacts are not exhaustive and include the following:

- **Resources:** Wastage and over-consumption of resources such as energy, water, food and other materials
- **Biodiversity:** Destruction of biodiversity and habitats, and over-exploitation of wildlife
- **Quality:** Pollution of air, water and land; and global environmental problems such as ozone depletion and climate change.

Several channels are available where we can learn more about environmental issues: books; newspapers; magazines; reports; websites; seminars; schools; government sources; and non-governmental organisations. The Internet is a good source to understand what is happening on the environment as it provides the latest news. The following websites are recommended:

- [Environmental News Network](#)
- [Green@work Today](#)
- [Planetsave](#)
- [Treehugger](#)
- [United Nations Environment Programme](#)
- [World Business Council for Sustainable Development](#)
- [World Resources Institute](#)
- [Worldwatch Institute](#)

The following books, articles and reports also serve as good resources on selected environmental topics. Some of them are classics and have inspired many people to do their part for the environment.

- *Silent Spring* by Rachel Carson (1962)

This book explains the potential impact of excessive use of DDT and other pesticides on humans and the environment. It alerted the public on potential pollutants and is known to have sparked the first environmental movement in the United States.

- [*The Tragedy of the Commons*](#) by Garrett Hardin (1968)

This article in *Science* magazine looks at the pressure on resources as populations increase, and the need to manage resources that belongs to everybody yet no one is protecting them.

- [*Declaration of the United Nations Conference on the Human Environment*](#) (1972)

This declaration was delivered at the 1972 Stockholm Conference, which was the first international conference that covered environmental issues.

- *Gaia: A New Look at Life on Earth* by James Lovelock (1979)

This book introduces the Gaia hypothesis, which postulates that the Earth behaves like a living organism that is able to self-regulate.

- *Save the Earth* by Jonathon Porritt (1991)

This book describes the environmental problems facing Earth and includes the comments and wisdom of many important leaders and famous people. Having read this book 12 years ago, it left an unforgettable impact and inspired me to understand more about the environmental impacts of humans and to do something for the environment.

- *Earth in the Balance* by Al Gore (1992)

This book was written by the former United States Vice-President and he urges strongly about the need to take action to deal with environmental problems.

- [Agenda 21](#) (1992)

This blueprint for sustainable development was delivered in 1992 at the United Nations Conference on Environment and Development, also known as the Earth Summit.

- *Biomimicry: Innovation Inspired by Nature* by Janine M. Benyus (1997)

This book introduces biomimicry, a new science that encourages innovations by learning from nature. Nature has found solutions that humans could imitate and learn from. This book inspired me to pursue my studies in environmental engineering.

- [The Earth Charter](#) (2000)

This charter was completed in 2000 and is a declaration of the principles that should be followed to ensure a sustainable future.

- *Something New Under the Sun* by John McNeill (2001)

This book gives a concise history of how humans changed their environment throughout the twentieth century, which “qualifies as a peculiar century because of the screeching acceleration of so many processes that bring ecological change.”¹⁷

- *The Future of Life* by Edward O. Wilson (2002)

This book describes the increasing loss of biodiversity and what we need to do to prevent further loss.

- *Red Sky at Morning* by James Gustave Speth (2004)

This book gives an update on the state of the environment and suggests new strategies to deal with the problems.

- [State of the Environment 2005 Report](#) by the Ministry of the Environment and Water Resources, Singapore

This report describes the work and achievements by the Ministry and its statutory boards in protecting and improving the environment in Singapore.

- *The Weather Makers: How Man is Changing the Climate and What it Means for Life on Earth* by Tim Flannery (2005)

This book gives a good summary of the history and evidence for global warming and climate change. It helps to make sense of what is happening on the issue of climate change and provides solutions to tackle the problem.

- [Singapore Green Plan 2012 \(2006 Edition\)](#) by the Ministry of the Environment and Water Resources, Singapore

This updated report describes Singapore's blueprint towards achieving environmental sustainability.



Improve your awareness and knowledge of local and global environmental problems, issues and solutions

small steps



- Read the textbook on environmental science, *Living in the Environment*, by G. Tyler Miller, Jr
- Read the *State of the Environment 2005 Report* and the *Singapore Green Plan 2012*, and understand Singapore's plans towards sustainability
- Make a commitment to read one recommended book, article or report every month
- Check out the recommended websites and subscribe to their email updates or RSS feeds

Three

Practise the 3 “Rs”

“The multiple threats to the Earth are so complex that in most cases they seem beyond the reach of an average citizen’s influence. Yet we can all launch a personal campaign to reduce consumption ... It simply means stopping to think, before each purchase, ‘Do I really need this?’”

- Dervla Murphy¹⁸

“To live more simply, that others may simply live.”

- Jonathon Porritt¹⁹

In modern society, overconsumption and wastage of resources seem to be a norm. We buy more than what is necessary, use and waste more water and electricity than needed, and throw away more waste. We tend to change our material belongings constantly to suit the current fashion and trend, leaving behind a trail of “old-fashioned” waste. These “old” waste are thrown away although some could still be in good condition. Packaging waste are also becoming common as excessive packaging are used for products. In *Paper or Plastic*, Daniel Imhoff identifies consumerism and citizen apathy as one reason for increasing packaging waste. He says, “Accelerating high-speed lifestyles that value convenience, inexpensiveness, eating outside the home, and high levels of consumption undercut other important concerns, such as nutrition, environmental protection, and genuine sustainability”²⁰.

It is time to ask ourselves whether we should practise “sufficiency” in consumption. As Paul Ekins explained, “In a society devoted to ever-greater consumption, it is hard not to identify sufficiency with notions of sacrifice, of ‘doing without’ or ‘giving things up’. Such identifications are, however, misplaced. Certainly, sufficiency implies relatively modest consumption and simplicity in personal lifestyle. But these are not motivated by abstract

aestheticism or self-denial, but arise from a perception that sufficiency in consumption permits a greater emphasis to be placed on other aspects of human experience, which are actually more personally rewarding and fulfilling than consumption.”²¹ We have to recognise that there are other things to pursue in life besides buying, consuming and discarding; things that are more important like relationships, health and happiness.

It takes individual responsibility to tackle the problem of overconsumption and wastage. You can start by practising the 3 “Rs” in your daily life – Reduce, Reuse, and Recycle (in order of sequence). The sequence is important, as source reduction is usually the best way to minimise wastage while recycling still has some impact on the environment and should be done last.

Reduce by not creating the wastage or minimising the waste in the beginning. Always remember the idea of sufficiency and ask yourself whether you need the item in the first place. Good practices could include printing on paper only when necessary, using non-disposable or durable products, and switching to electronic bill statements instead of receiving printed copies. In addition, we can reduce wastage of oil resources by driving less, switching to public transport or using more environmentally friendly cars. Ensuring that there are no leaking water pipes, using water-reducing nozzles, switching to energy-efficient light bulbs and appliances, and switching off lights when not in use can also reduce wastage of water and energy.

Reuse by using the waste several times or for another purpose. When the waste is already generated, try to find some ways to use it instead of throwing it away. This could include buying reusable materials, using used plastic and glass bottles as containers for storage, donating unwanted items and clothing to charity, using both sides of the paper or converting used containers into art ornaments.

Recycle by sending the waste to be processed as a resource. This could include depositing waste such as used paper, cans and bottles into recycling bins or selling them to used item traders so that the waste can be sent for recycling. The National Environment Agency (NEA) has implemented the [National Recycling Programme](#) for several years, where recycling bags or containers are given to residents living in housing estates and landed

properties. These recycling bags or containers are given by appointed recycling contractors and are collected fortnightly. Residents should make use of the recycling programme to recycle waste items instead of throwing them away. In addition, there are public recycling bins near train stations and high traffic locations, where the public can deposit their items. Given these recycling facilities in place, there should be no excuses for people not to recycle.

More tips on the 3 “Rs” can be found at the following websites:

- [Hong Kong Environmental Protection Department](#)
- [Friends of the Earth](#)
- [Global Stewards](#)
- [National Climate Change Committee](#)
- [National Environment Agency](#)
- [Ollie Saves the Planet](#)
- [Public Utilities Board](#)
- [RecycleNow](#)
- [The Recycling Consortium](#)
- [United States Environmental Protection Agency](#)

Always remember to reduce or eliminate wastage in the beginning, and then reuse whatever waste that has been generated, and lastly recycle the waste that cannot be reused anymore. It would be good to keep in mind what Randy Hayes said, “Remember, waste is a construct that humanity invented at a time when industry lacked a deep understanding of ecological processes. There is no waste in nature.”²²



Practise the 3 “Rs” in your daily life – Reduce, Reuse, Recycle

small steps



- Switch off your computer after use and not leave it on standby mode
- Switch off lightings when not in use
- Use both sides of the paper and recycle all waste paper
- Switch to receiving electronic bill statements instead of printed bill statements
- Sell your used items or donate them to charity
- Participate in the National Recycling Programme

Four

Spread the Message and Influence Others

“After all is said and done, silence is betrayal.”

- Jane Goodall and Marc Bekoff²³

“Indifference is the essence of inhumanity.”

- George Bernard Shaw²⁴

Besides caring about the environment and taking personal action, you can go a step further by spreading the environmental or green message and educating family members, friends, classmates or colleagues. Share your environmental knowledge with them and remind them to reduce wastage and overconsumption. Furthermore, you can influence the organisation that you belong to, whether it is a school, a company or a social group, to be more environmentally friendly.

Humans are social animals and we tend to do things together. Groups and organisations such as schools, companies and religious groups are formed with the ability to achieve more than what individuals can do. However, the increase in size inevitably leads to greater environmental impact. For example, with globalisation, companies grew bigger with more employees and capitalisation, and have a wider reach and influence on the world's population. Their impact on the environment also becomes larger. More resources like water, energy and minerals are used to produce goods and services; more waste and by-products are generated; and more land are needed to set up production plants. Therefore, it is important that organisations start to be more environmentally friendly.

Most of us have either attended schools or are still students. Besides spreading the green message among classmates, you can also influence your school to adopt more environmental friendly practices. For example, you could suggest to your school administration on the setting up of environmental clubs or on the implementation of recycling programmes. For secondary schools and junior colleges, students can also suggest to the school to take part in the [Schools' Green Audit Awards](#) programme organised by the Singapore Environment Council (SEC). Schools would have to conduct environmental audits and SEC would award the schools according to the level of environmental consciousness in the schools.

In particular, tertiary schools like universities should aim to be more environmentally friendly. Universities are remembered for producing graduates and academics like architects, engineers, scientists, lawyers, businessmen and teachers. They hold key positions in society and their actions or behaviour influence more than others. Their decisions could affect the environment directly or indirectly, positive or negative, big or small. The university itself is a large institution with a big ecological footprint. Imagine its water and energy usage, the waste it generates, and the number of vehicles travelling through the campus. The influence and impact of a university, its occupants and graduates on the environment are tremendous and far-reaching.

My idea of an environmentally friendly university or green university is one with a strong green culture where management, staff, undergraduates, postgraduates and alumni are environmentally aware and do their best to reduce their impact on the environment, whether it is on campus or in their daily lives. After graduating, the alumni would still keep the environment in mind when making decisions at work and ensure that any projects would have no or minimal impact on the environment. University students should aim to influence their university to be green, through initiating projects and activities.

It is often difficult to change the mindsets and habits of people, and get them to embrace the green message. In the book, *The Tipping Point*, by Malcolm Gladwell, he explores how a message can be spread and then tipped so that everyone is aware of it. There are some lessons that could be learned from his book – The Law of the Few, The

Stickiness Factor, and The Power of Context²⁵. Let us use his ideas to see how we could spread the environmental or green message in a university.

The Law of the Few says that a selected group of people are essential to spread a message. Students could be recruited to spread the environmental message but not just any student. We want students who know lots of people such as those involved in student groups or staying in hostels (Connectors); students who have good knowledge of environmental issues such as those in the environmental engineering, environmental management and geography courses (Mavens); and students who can promote and persuade others to adopt the message such as those in the marketing and law courses (Salesmen). These selected groups of students would be in-charge of spreading the message to their fellow students. With the support of the university management and staff, the students would organise innovative activities to spread the message.

The Stickiness Factor says that the content of a message should be personal and practical so that it can be remembered. The environmental message should have clear, relevant and practical advices on what the students can do. For example, using both sides of the paper, recycling used paper and drink cans, switching off lights when leaving tutorial and lecture rooms, etc. State the benefits of a green university in terms of how the students can reduce impacts on the environment and cut costs, and the possible reduction in school fees, increased subsidies or more student welfare resulting from the cost reduction. It should be made clear to the students what they can do, how they can do it, and what benefits they can gain from their actions.

The Power of Context says that a message may be tipped by small changes in context. Awareness on environmental issues and efforts to spread the environmental message can be incorporated into the context of the university education, which helps student understand that the environment is not something abstract and may be relevant to their daily lives or what they do in their future work. To increase environmental awareness, there could be compulsory courses on environmental awareness for first-year students, increased talks and seminars on the environment, and competitions for students to give suggestions on reducing wastage.

Furthermore, students could be involved in spreading the green message through projects and case studies during their coursework. For example, Business Administration students could be involved in projects to market the green message. Engineering students could be involved in projects to explore new environmental technology or improve the efficiency of existing equipment on campus. Science students could be involved in monitoring the ecology on campus and conducting surveys on environmental awareness. Arts and Social Sciences students could be involved in studies on the behaviour and psychology of green students, and how to increase participation.

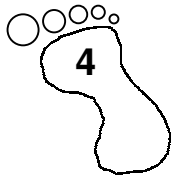
Those who are working can similarly influence their companies to adopt more environmental friendly practices. A company can first do an environmental audit and find out which areas need to be improved. Sometimes, it is only a matter of changing habits or pointing out that certain practices are undesirable. In addition, companies could implement the ISO 14001 Environmental Management System or practise corporate social responsibility. Nowadays, more companies are aware of their responsibility, and are producing social and environmental reports for their stakeholders or getting ISO 14001 certification.

More importantly, companies need to move upstream in their environmental efforts by adopting a cradle-to-cradle thinking for reducing waste: “To eliminate the concept of waste means to design things – products, packaging and systems – from the very beginning in the understanding that waste does not exist.”²⁶ Companies should be reminded and convinced that designing with the environment in mind would be better than “end of pipe” solutions in reducing their environmental impacts.

For an introduction on environmental friendly practices, you can refer to the following websites:

- [Carbon Trust](#)
- [Design for the Environment](#)
- [Eco-Management and Audit Scheme](#)
- [Energy Star](#)
- [Envirowise](#)

- [National Environment Agency's Guidebook on Waste Minimisation for Industries](#)
- [GreenBiz](#)
- [ISO 14000 Information Center](#)
- [WasteWise](#)



Spread the environmental message to those around you and influence your organisation or group to be environmentally friendly

small steps



- Share your environmental knowledge with friends
- Check out the websites on environmentally friendly practices and select a few practices that might work in your company or school
- Share those practices with your colleagues or classmates and form a group
- Provide a group suggestion to the company management or school administration on adopting those good practices

Five

Support Local Initiatives and Groups

“I can hardly imagine living without hope. As for the future of the world, there is a colorful spectrum of possibilities, from the worst to the best. What will happen, I do not know. Hope forces me to believe that those better alternatives will prevail, and above all it forces me to do something to make them happen.”

- Václav Havel²⁷

“In the end, our society will be defined not only by what we create, but by what we refuse to destroy.”

- John C. Sawhill²⁸

In *Sustainability and Cities*, Ooi Giok Ling noted that, “In the area of environmental policy decision-making, the role of the state has been dominant. The policy decision-making process has been highly centralised, with practically little contribution from civil society”²⁹. The local government has always ensured that we are protected and potential problems are stub in the butt. The local environment has been taken good care of, so good that we do not see the need to care or be responsible for the environment.

Some have developed a tendency to depend on the government and not take responsibility. Their view is that if there are any problems, the government will take care of it. For example, some people feel that they do not have to save water as the government has developed alternative sources of water from Newater and desalination plants. Even if they waste water, the water will be recycled into Newater. These indifferent and complacent

attitudes need to be changed if we are to ensure a sustainable environment, which need the efforts of the government and the people.

John F. Kennedy once said, “ask not what your country can do for you – ask what you can do for your country”³⁰. Instead of relying or expecting the government to take care of our environment, it is time for Singaporeans to do their own part and take responsibility. One way is to participate in government initiatives and programmes for the environment. Support campaigns and programmes by the government such as the [National Recycling Programme](#), the [Water Efficient Homes](#), the [Heritage Trees Scheme](#), and the [Why Waste Plastic Bags? Choose Reusable Bags! campaign](#).

In addition, you could initiate projects to improve the environment and get funding from the government agencies. For example, funding is available from the National Environment Agency’s [3P Partnership Fund](#) and the National Youth Council’s [Young ChangeMakers](#) and [Youth Development Fund](#). Furthermore, there are competitions that encourage people to initiate environmental projects and research. For example, Sembawang Shipyard organises an annual “[Green Wave](#)” competition and they hope that “participants will feel personally responsible and accountable for promoting and sustaining environmental care and protection”³¹.

Another way is to support the local environmental causes, non-governmental organisations (NGOs) and environmental groups. Join the various activities organised by the NGOs and groups or volunteer your time with them. Several NGOs and groups are contributing to the environmental causes in Singapore and some of them include:

- [Animal Concerns Research and Education Society](#)
- [Blue Water Volunteers](#)
- [Climate Change Organisation](#)
- [Environmental Challenge Organisation \(Singapore\)](#)
- [Nature Society \(Singapore\)](#)
- [Nature Trekker](#)
- [Raffles Museum of Biodiversity Research](#)

- [Restroom Association \(Singapore\)](#)
- [Singapore Environment Council](#)
- [Singapore Zoological Gardens Docent](#)
- [Society for the Prevention of Cruelty to Animals](#)
- [Sunny Island Tree Climbers Society](#)
- [Vegetarian Society \(Singapore\)](#)
- [Waterways Watch Society](#)

Besides relying on the government to protect the environment, NGOs and environmental groups also play a major role. They can also make good decisions and solve problems; sometimes a bottom-up approach is better than one that is top-down. James Surowiecki in *The Wisdom of Crowds* wrote, “under the right circumstances, groups are remarkably intelligent...”³² and “if you set a crowd of self-interested, independent people to work in a decentralised way on the same problem, instead of trying to direct their efforts from the top down, their collective solution is likely to be better than any other solution you could come up with”³³.



Support initiatives by the government, NGOs and environmental groups, and join them in their activities or be a volunteer with them

small steps



- Support one campaign initiated by the government or environmental groups
- Participate in the campaign and ask your friends to join you
- Visit the websites of NGOs and environmental groups and understand what they are doing
- Volunteer your services with a group that you are interested in

Six

Use Rights as Citizens and Consumers

“The Government simply cannot make up their minds ... So they go on in strange paradox, decided only to be undecided, resolved to be irresolute, adamant for drift, solid for fluidity, all-powerful to be impotent ... The era of procrastination, of half-measures, of soothing and baffling expedients, of delays, is coming to its close. In its place we are entering a period of consequences.”

- Winston Churchill³⁴

“The environmental crisis is an outward manifestation of a crisis of mind and spirit. There could be no greater misconception of its meaning than to believe it is concerned only with endangered wildlife, human-made ugliness, and pollution. These are part of it, but more importantly, the crisis is concerned with the kind of creatures we are and what we must become in order to survive.”

- Lynton K. Caldwell³⁵

As citizens, we have the rights to participate in the formulation of government policies regarding the environment. This could be through government dialogues or feedback channels, and also through the media. For example, the episode on [Chek Jawa](#) is a classic example of how public opinion and feedback reversed the government’s stand, and deferred reclamation works at Chek Jawa (the actual process took more hard work). As Chua Ee Kiam explained in *Chek Jawa*, “The groundswell of public support and spirited attitude of individuals determined to pursue a cause made the difference”³⁶. Another example is the process of public consultation for the formulation of the [Singapore Green Plan 2012](#). There

are opportunities for people to voice out their concerns about the environment through several channels and we should make use of them constructively.

In this digital age, feedback and comments can be directed to the relevant parties easily through email. The email addresses of government agencies and relevant officials can be easily obtained online. The websites of government agencies also provide sufficient information for the public to go through and have channels for them to give their views. Online discussion forums and blogs also provide alternative channels for voicing opinions, although sometimes it can be misused.

As we state our stand on environmental issues, it is important to base it not only on our convictions but also based on facts and adopting a win-win mentality. It is not about us against the government or the government against the environment. As Chua Lee Hoong reported on the Chek Jawa issue, "It was a day the Government proved itself responsive to public feedback, a day it showed itself open to the merits of persuasive argument from citizens ... On the part of the Chek Jawa activists, they showed how to make their cause and win it. On the internet, in the newspapers and in public forums, these concerned Singaporeans pleaded their cause, passionately but rationally and with civility at all times"³⁷.

As consumers, we have the rights to choose and buy what we need and want. However, with increasing choices than before, we developed bigger appetites as consumers, consuming more than what is needed and generating more waste than necessary. This is made worse by the endless bombardment of advertising all around us. More often than not, we end up buying things whose advertising has made an impact on us, regardless of whether the product is better than the others. With the amount of advertising around us, it becomes harder to keep our consumption within limits. Sometimes, consumers also feel more stressful in the process of choosing among the multitude of brands.

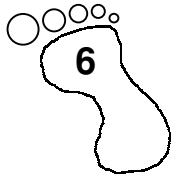
As more companies compete to promote their brands, they use all forms of media, materials, brochures, roadshows and excessive packaging. These unnecessary advertising and wasteful packaging are used to attract consumers to buy and use more. As Daniel Imhoff quotes in his book, *Paper or Plastic*: "Waste could result from a competitive "arms race" in which one company adopts larger, more elaborate packaging solely to compete with another

company's larger, more elaborate packaging, in the struggle to win the attention of consumers. Producers could misinterpret consumer acceptance of increasing levels of packaging as evidence of a desire for even more"³⁸. For example, one product could have several brands and each brand develops its own packaging and advertising material to highlight its brand. These advertising materials or packaging often end up as waste. If the advertising campaigns are successful, more consumers buy and result in more waste generated – the waste cycle continues.

Do we have the power to choose what we want? Can we influence companies to reduce their excessive packaging and promotional materials? Nowadays, companies have become increasingly aware of their corporate responsibility to the community and the environment. Consumers can make use of this increasing awareness to feedback or remind companies to be more environmentally friendly and minimise waste. For instance, Thomas Friedman commented in *The Lexus and the Olive Tree* that: "Thanks to the Internet, environmentalists in one country are quickly relaying how a multinational behaves in their country to environmentalists in other countries. Therefore, more and more multinationals are realizing that to preserve their global reputation and global brands in the face of Internet activism, they need to be more environmentally responsible"³⁹.

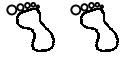
However, some skeptics might be doubtful of a company's self-proclaim corporate responsibility because a company's responsibility is to seek maximum profits for its shareholders. In his book, *The Corporation*, Joel Bakan described a company or corporation: "As a psychopathic creature, the corporation can neither recognise nor act upon moral reasons to refrain from harming others. Nothing in its legal makeup limits what it can do to others in pursuit of its selfish ends, and it is compelled to cause harm when the benefits of doing so outweigh the costs. Only pragmatic concern for its own interests and the laws of the land constrain the corporation's predatory instincts, and often that is not enough to stop it from destroying lives, damaging communities, and endangering the planet as a whole."⁴⁰

Therefore as consumers, we have to keep the "creature" in check and constantly ensure that the company recognises its responsibility to the environment. If the company continues to neglect the environment, we can always boycott the company and its products. After all, the customer is king.



Use your rights as citizens and consumers to feedback and influence the government and companies to keep the environment in mind

small steps



- Send emails to the government agencies to feedback on environmental problems
- Write letters to the newspapers on environmental issues
- Participate in government dialogues or consultations
- Feedback to the companies that use excessive product packaging
- Boycott products that use excessive packaging and switch to environmentally friendly products

Conclusion: A Moral Solution

“Which road we take depends on which moral choices we make. Since we have the capacity for both moral and immoral actions, and the freedom to choose, our destiny lies within.”

- Michael Shermer⁴¹

“Between stimulus and response there is a space. In that space lies our freedom and power to choose our response.”

- Stephen R. Covey⁴²

In this technological age, some believe that technology is able to solve all of man's problems. However, I believe that most environmental problems ultimately do not have a “technical solution”. As Garrett Hardin defined in [*The Tragedy of the Commons*](#), a technical solution is “one that requires a change only in the techniques of the natural sciences, demanding little or nothing in the way of change in human values or ideas of morality”⁴³. Technology can be used as a tool or means to solve environmental problems but ultimately the decision to want to do something for the environment is based on our own inner morals; how we view our relationship with nature and its biodiversity.

Our commitment to solve environment problems can only come from our inner reflection of what is right and wrong, and our desire to do good for nature and its living beings. Even if we put aside the morality issue, it boils down to how we want to live. As The Dalai Lama reflects, “The natural world is our home. It is not necessarily sacred or holy, it is simply where we live. It is therefore in our interest to look after it. This is common sense.”⁴⁴

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