

The Ecology of Commerce Revised Edition: A Declaration of Sustainability Study Guide

The Ecology of Commerce Revised Edition: A Declaration of Sustainability by Paul Hawken

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Plot Summary

The Ecology of Commerce by Paul Hawken addresses the topic of business and its effect on the environment. According to Hawken, businesses don't have to destroy the environment. Rather, business can become the catalyst to change and save the environment.

Instead of thinking simply of profit, businesses need to integrate human, economic and biologic systems. In the past, at the beginning of the Industrial Revolution, resources seemed unlimited. With the expansion of business and global trade, resources have become limited. Now, the world cannot sustain itself. We all take too much, and there isn't time to replace the natural resources destroyed.

We also waste too much. Recycling cans in an office is barely the tip of the iceberg to the real problems. Businesses create waste that has an environmental impact we can't immediately see. One of the biggest problems is chlorine. Organochlorine is one among dozens of concerning man-made poisons in the environment that have a significant impact on health and sustainability.

Corporate America seems to be satisfied with the idea that the health of the ecosystem is defined separately from businesses and jobs. They need to understand that businesses can actually help restore society and the environment. There has to be a design for the future to make things better for everyone. An example of this is the "intelligent product system" proposed by Dr. Michael Braungart and Justice Englefried of the Environmental Protection Encouragement Agency in Hamburg, Germany.

The idea of the free market also needs to be addressed. Markets are not the same as they used to be, but this doesn't have to be bad. A cost/price integration, as proposed by Nicholas Pigou, could lead to a more stable economy and a healthier environment. There also needs to be more of a balance between small businesses and large businesses. The environmental impact of big businesses must be taken into consideration.

America today is very different from the country originally founded. The country was initially created by people trying to escape governmental and organizational oppression. Now it is a country with peoples oppressed by corporations and business. In pursuit of business success, the people focus on work and don't seem to realize that the standard of living is not increasing.

Instead, we turn a blind eye to the effects of our pursuit to gain financially, and corporations continue to grow in power, influencing governmental decisions that often block initiatives to improve our world socially and naturally. Small businesses have to fight for a chance against big businesses, yet they provide the foundation for change. With a focus on sustainability, small businesses can educate customers, create environmentally-friendly products, and give back to the earth and community.

Most of the earth-friendly initiatives reward the wealthy, but there needs to be a global effort that transcends location and social status. Green fees and green taxes can address serious environmental issues, benefiting everyone. Instead of fearing the future, changes need to be made to face it. This book offers broad-based and specific guidelines that, if utilized, could offer hope for the future.



Preface - Chapter 3

Preface - Chapter 3 Summary and Analysis

The Ecology of Commerce by Paul Hawken addresses the topic of business and its effect on the environment. According to Hawken, businesses don't have to destroy the environment. Rather, business can become the catalyst to change and save the environment.

Preface - Chapter 3

Preface - The idea for this book emerged when the author was in the Waldorf-Astoria ballroom. A company the author represented had been nominated for an Environmental Stewardship Award. As he went to accept the award and thank people, he suddenly realized that his company did not deserve the reward, and neither did anyone else.

All the effort they put into helping the environment barely scratched the surface of the real problem. While this was a good step, the problem was much greater. It was more about a mindset and an understanding of what the problems really were. The real problem was that there were more people in the world than resources.

In order to create a sustainable method of commerce, businesses would need to integrate biologic, economic and human systems. Businesses must hit a point where doing good came naturally. The author cited eight objectives that could help achieve optimal solutions:

Reduce absolute consumption of energy and natural resources in the North by 80% within the next half century.

Provide secure, stable, and meaningful employment for people everywhere.

Be self-actuating as opposed to regulated or morally mandated.

Honor market principles.

Be more rewarding than our present way of life.

Exceed sustainability by restoring degraded habitats and ecosystems to their fullest biological capacity.

Rely on current income.

Be fun and engaging, and strive for an aesthetic outcome.

Chapter 1 - A Teasing Irony



According to the author, businesses in America and the rest of the industrialized West don't really understand what business is or what it can become. He felt that it was stuck at a primitive level. To him, the ultimate purpose of business is not simply to make money or to sell products. It is really an opportunity to increase the general well-being of humankind through service, ethical philosophy, and creative invention.

We have the capacity and ability to create a very different economy that can protect the environment, restore ecosystems, provide meaningful work and prosperity as well as security. Although there is a widening gap between the natural world and society, he views the turbulent period as the system shedding its skin.

Some businesses look at environmental policies as a balance between business needs and environmental concerns. He argues that the restorative economy described in this book unites ecology and commerce in a dynamic, ever-changing interplay of forces of life.

In the past, it wasn't so urgent to understand the relationship between healthy environment and business. A time long ago, resources seemed unlimited. Environmental degradation was occurring at an alarming rate as the author wrote the book. He equated can recycling and ceremonial tree planting at businesses with bailing out the Titanic was teaspoons.

One obstacle businesses face is the lack of design for adaptation. Business is not designed to respect limits. In fact, it is designed to break them. The commercial culture of the past century focused on growth, borrowing resources from the future when limits were met.

The essential nature of commerce hasn't changed much over time. The difference in the overall nature is the extensive reach that modern businesses have. Capitalists argue that the free market might include sacrifices, but in the end everyone will benefit so businesses should continue expanding. The author finds that invoking the sanctity of the free market is, at its heart, dishonest. He looks back at the Industrial Revolution with the cities coated in grime and the sun cut off by smoke. People were overtaken with disease and inhumane conditions at work.

The businesspeople of today can look back at the abuses of the Industrial Revolution, but don't seem to equate it to the problems faced in the modern world. One reason for this blindness might be attributed to the piecemeal view of events. From the author's observations, most of the people who were involved with commerce also knew about environmental issues. However, their concern for jobs, the economy, and the future pushed environmental worries to the background.

Business needs to think of itself differently, coming up with a new language and a new vision. Businesses need to think beyond the words "gross" and "net." Ideally, business and restoration should be part of a seamless web. For this to happen, business has to face three basic issues: what it takes, what it makes, and what it wastes. It needs to understand how these are connected. The solution for these dilemmas are three



fundamental principles that govern nature: waste equals food, nature runs off of current solar income, and nature depends on diversity. It is not mass-produced.

Businesses work best when they have a positive vision. It is also important for the consumer to understand that they are part of the equation as well. Together, everyone needs to consider the balance of comfort versus the destruction of the environment. Some people think it's too late, but the author believes that change can happen. He sees business as a problem, and also as part of the solution. All that is needed is a collective will.

Chapter 2-The Death of Birth

Ecology can be defined as the constant transformation of ecosystem's organisms. Organisms and plants don't simply occupy an environment. Rather, they transform and alter it. An ecosystem starts small, but after an emphasis on growth, evolves into a mature, resource-conserving, highly efficient system. New systems become the foundation for mature ecosystems as they stabilize soil and prevent deterioration.

In immature systems, energy is used to create new growth. In the climax system, most of the energy is devoted to continuing existing plant and animal communities. There is an exchange of stability and sustainability between the two systems. The author equates the present industrial economy to an immature ecosystem. At first, at the beginning of the Industrial Revolution, resources seemed unlimited. Less than 200 years later, economic growth faced dwindling natural resources. As stated before, businesses need to consider what it takes, what it makes, and what it wastes. This chapter deals with the method of taking.

While businesses mimic organisms in regards to taking food and energy from the environment, creatures consume renewable resources. Companies, on the other hand, consume renewable resources as well as non-renewable resources such as oil, natural gas, and coal.

We might already be reaching the diminishing point. There are dangerous signs of usurpation of planetary production, and many life forms are going extinct. The resources we use took millions of years to create. Instead of facing the problem head on, we harvest resources more rapidly. The scarcity of renewable resources creates conflict among the people of the world. In the past, the extinction and decline of species were regional problems. Now, there is a more global reach. The richer countries do not see the impact they have on the poor nations. They don't see the people dying from pesticide poisoning.

Biological diversity is the source of all wealth. There are over 1.41 million life forms on the planet. Scientists are discovering new species all the time. It's possible there are 100 million species on the earth. Due to the present rate of extinction, we may lose 20% of all the species on the planet within the next 20 to 40 years. Since they are unstudied, there is no knowing the positive effect these species might have on human sustenance. The loss of evolutionary potential is called the "death of birth."



For the past 30 years, many people try to treat the idea of environmentalism as doom-oriented. This is slowly changing, but business has hardly changed at all in spite of its good intentions for respecting nature. It focuses on protecting shareholders, profits, and markets. Business relies on technology to fight against depleted resources.

Chapter 3-The Creation of Waste

Just as we take too much, we also waste too much. Industry releases chemicals into the air, it injects toxins into the ground and landfills, it discharges effluents into the Earth's water. The average American consumes approximately 36 pounds of resources every week. After Earth Day in 1990, industry created myths about environmental waste so that its image could be changed. One of these myths is the assumption that we can clean up our environment. The author writes that "nothing is more basic to the argument of this book than the proposition that disposal of hazardous waste is not the root problem. Rather, it is the root symptom." In the natural world, all processes are interlinked. When something rots, it feeds or helps something else.

The waste problem wouldn't be an issue if it were confined to diapers and other general household trash. The big harm comes from the waste that we can barely see. The problem begins with chlorine products. The combination of chlorine and hydrocarbons is known as organochlorine. These are compounds that do not break down easily and last for a long time. These man-made compounds don't break down in water. The buildup in the body can contribute to cancer, immune suppression, stillbirths, infertility, and birth defects.

The compounds mimic natural hormones as they cling to receptor sites in the body altering embryonic development irreversibly. In science, it's important to know what you don't know. The same holds true in business. Organochlorines are one among dozens of concerning man-made poisons in the environment. Industry wants to clean it up, but how does one throw away a toxic molecule?

The concept of environmentally sound landfills sounds attractive, but it's more important to address the creation of waste. Our solutions often create more problems. A study in New Jersey showed that a state-of-the-art incinerator consuming 2,250 tons of household garbage every day would annually emit 5 tons of lead, 580 pounds of cadmium, 17 tons of mercury, 2,248 tons of nitrous oxide, 777 tons of hydrogen chloride, 853 tons of sulfur dioxide, 87 tons of sulfuric acid, 18 tons of fluorides, and 98 tons of particulate matter small enough to lodge permanently in the lungs. They are also dioxin generators.

Businesses claim a need to grow economically in order to pay for cleanup costs. Logic dictates that one must learn to avoid creating hazardous waste initially. This begs the question, how does a business move ahead to create a commercial system based on natural principles? It must be done with a plan and a vision.



Chapters 4-6

Chapters 4-6 Summary and Analysis

Chapter 4 - Parking Lots and Potato Heads

Corporate America is satisfied with the idea that the health of the ecosystem is defined separately from jobs and business. Distribution and production leave biological life out of the equation. Business has so many positives that it's hard to understand how it has become so destructive over time. It needs to be totally restructured before life on Earth ceases to exist.

The goal of this book is to help readers understand that businesses can act in ways that are restorative to the environment and society. In order to restore, one must admit that something has been removed or lost. It's about healing. In order to think of the future, there must be a design. There must also be a means to pay the bills. Ignoring the problems we already face won't make them get better. Much effort was put into facing the threat of a possible nuclear standoff. Now, there is an outcry that there aren't resources for saving the environment. Ironically, we already actually have the limited resources predicted; it's not about possibility.

Over 2,000 years ago Aristotle addressed the concept of oikonomia versus chremastistics. Chremastistics is a branch of political economy relating to the manipulation of wealth and property in order to maximize short-term monetary exchange value to the owner. By contrast, oikonomia is the management of the household that increases the value of all the members over the long run. It's a consideration of "economics for community."

Even though we talk about "economy," industrial societies rarely practice chremastistics. People have good intentions, but the result is not functional. Economic theorists tend to look at mathematical models rather than looking at the structure and operations of the real economic system. The economy doesn't seem to grasp the concept that growth does not mean more waste, and posterity is not described by kilowatts used in products manufactured.

To address the problem, everything we know needs to be reconsidered. Businesses need to focus on the word "practice." Many companies and individuals already know they have to do something to clean up and change. Some offer incentives to reduce toxins and costs. One proposal toward sustainable industrial methods is called "industrial ecology." In this method, industries and companies realize that their practices are not economical, and they attempt to eliminate pollution by tailoring their manufacturing so that byproducts become raw materials for subsequent processes. This implies that resource shortages might have technological fixes. Some ecologists might call this optimistic, but for the first time, industry is applying an ecosystem concept to the whole industrial operation.



In addition to creating interaction among industrial processes, energy input and waste output, there is an emphasis on minimizing. The concept of dematerialization focuses on design, using lightweight materials showing that "more is less" in a product. Over the years, the price of energy has fallen. However, the real cost is in the long-term effects to the environment, and that's continuing to climb.

There are two main proposals that are being tried out to align government and business objectives with environmental policy. The first is the imposition of green policy taxes on emissions, and the second is the issuance of pollution permits. Dr. Michael Braungart and Justice Englefried of the Environmental Protection Encouragement Agency in Hamburg, Germany propose an "intelligent product system." They propose dividing products into three categories: products of service, consumables, and unsalables. Almost all industrial products eventually fall under the categories of products of service and consumables.

Consumers who use products of service find that there is no place to dispose objects like televisions. However, they could be returned to the manufacturer and made into new products. Products of service can be rearranged, reused, changed, and reclaimed.

There is no part of the cycle for products that are unsalable. These would be toxic chemicals, heavy metals, radiations, and similar industrial waste. Braungart and Englefried proposed that these be stored in "parking lots." These lots, owned by the state or other public authorities, could be rented out to a polluter.

In the current industrial economy, it's typical to think cradle-to-grave. Instead of this type of thinking, everyone should consider the responsibility of not only the maker but the user as well when it comes to pollution and toxicity.

Chapter 5 - Pigou's Solution

While the free market seems efficient, the overall economy is very inefficient. This is because of the way markets set prices. Markets don't factor in cost. This includes costs to natural and human communities. The free market is particularly damaging when it prices products artificially.

Much of the desire for our market economy ties in with psychology. People like the idea of a town market with the good smells and tastes as a community gathers to buy and sell. Malls and shopping centers invite people to come and obsess over purchasing. Most Americans turn a blind eye to the aberrations of corporations because they believe in freedom. When it comes to markets, Americans fail to realize that the local market that lives in our minds is very different from the global markets of today's world.

While we cannot return to the local market arena, it is possible to regain control of larger markets by enforcing the payment of total costs. This must include factoring in the rate of extraction and consumption.

Businesses argue that efficiency methods are already in place, lowering costs. While this addresses one of the cost s of doing business, it still doesn't address environmental



and social factors such as the cost of raw materials used and the negative results of products manufactured such as herbicides, pesticides, and other toxins. Free marketers argue that markets become inefficient when the government subsidizes. They point to the demise of the Soviet system as an example.

The government needs to set conditions in the market to enforce cost payment. It could do this with cost/price integration. This idea was proposed by Nicholas Pigou. In his book, *The Economics of Welfare*, published in 1920, he argued that competitive marketplaces would not work if the producers didn't bear the full cost of production, including sickness, pollution, and environmental damage caused by the business. As a solution, he proposed to impose a "tax to correct maladjustment" on producers.

There are two different types of costs that should be internalized. One is actual damage caused by the production system, and the other is the cost to future generations. This includes deforestation, depletion of groundwater, erosion, and global warming.

While economists agree that externalities are difficult to measure, they overlook the fact that any effort in measuring costs is better than completely ignoring costs. The author of this book argues that suppressing prices might actually dampen invention, job creation, and innovation. He cites the energy business as a clear example. He points out that competition in the marketplace should not be between a company that is trying to save the environment and one that is focused on wasting. The competition should be about which company can do the best job in preserving the environment and restoring it. History needs to be reversed.

Chapter 6 - The Size Thing

In this chapter, the big debate is over big businesses versus small businesses. Businesses thrive on competition, but the scope of competition changes depending on the size of a company. On a small scale, businesses compete against each other by remaining aware of what a product is selling for and at what cost. Large corporations compete completely differently. They compete for the sale of products, but they also compete for investment capital. This has created a common global value system measured by money.

Because of this focus on money, the monetary worth a natural forest might represent becomes more valuable than the forest itself. The method a company uses to obtain money has become more important in the company's effect on natural and human life.

When it comes to international trade, countries face a dilemma when they decide whether to remain competitive or backslide economically. The General Agreement on Tariffs and Trade (GATT) was formed in 1948 with the purpose of lowering tariffs and trade barriers to stimulate international trade. With 108 participating countries, it seemed successful at first. However, the fine print told a different story. The fine print is full of loopholes, variable tariffs, giveaways to wealthy companies, and concessions to special interest groups. Environmental principles and laws would be subordinated to international trade treaties.



There is a conflict between a desire for order and a desire for freedom. We are proud of our large companies, but we often don't see the damage caused by them. Corporations are creating a second world. Change needs to occur, and this change needs to incorporate a restorative economy in which people thrive.

Chapters 7-9

Chapters 7-9 Summary and Analysis

Chapter 7 - Private Lives And Corporate Rights

There is a great contradiction between the values on which America was founded and the power that is now yielded by corporations. America was initially created by people trying to escape governmental and organizational oppression. Now, there is an unbalanced relationship between corporations and individuals. It's hard to tell the difference between corporate rights and private lives.

The history of corporations goes way back to at least the 16th century. At that time, debts were carried through generations, and those who couldn't pay were put into debtor's prison. With the corporate form, shareholders were limited to liabilities that were no greater than their investment. This seemed great at first.

At the beginning of the 19th century, the United States only had a few hundred corporations. Some were concerned that corporations would have rights that would give them more power than others. It was a transformation in business. The corporations did grow in power and began influencing governmental decisions.

The Clean Air Act of 1970 was blocked by companies with power. Twenty years later, the Environmental Protection Agency was able to pass regulation on only seven out of 191 toxins listed under the original legislation.

Chapter 8-The Jesse Helms Citizenship Center

We have allowed corporate life to take over our political system, and we spend most of our own lives working in the business world. Our work becomes an addiction, and we don't want to see the negative effects of this. Because of our dedication to work, we are losing a sense of ourselves as well as a sense of what we are doing to our own environment. For a long time, Americans felt that they were advancing thanks to commerce. However, in the past 20 years the standard of living in America has not increased.

An economy that is oblivious to the environment might also be oblivious to its managers and workers. In today's world, it is common to deny the downside of natural resource practices as we pretend to be environmentally responsible.

Before the Industrial Revolution, business and living were regulated by natural flows of energy. At some point, society turned to stored energy. This created an artificial life that is disconnected with human nature. Commerce invades our lifestyles as we are inundated with ads and commercials. Corporations blame consumers, and consumers blame corporations. We are in a runaway commercial culture.

People are in denial about the difference between their own lives and the lives of others in the world. While populations in the North consume products, native cultures around the world are destroyed due to the economic developments. People are willing to give up ethical values in their pursuit of business and profit.

Chapter 9-The Opportunity of Insignificance

Small businesses have to fight hard against big businesses. They have to fight for funding and a place in the market. The author cites that a cardinal principle and practice of any new business should be to perform tasks and services that are sustainably produced and/or promote sustainability in society as a whole. Instead of taking away from the environment, new businesses should find a way to sustain and contribute to the environment.

Small businesses should follow general guidelines as a design and promote the new enterprise. In order for a business to become sustainable it should replace both internationally and nationally produced items with products from the local area or region. The business should take responsibility for any of the effects that they have on the natural world. They should not require capital from exotic sources in order to grow. They should engage in production processes that are intrinsically satisfying, worthy, dignified, and human. Sustainable businesses should create objects that will last for a long time—products that will not harm future generations. These businesses should also educate customers and not treat them as mere consumers.



Chapters 10-12

Chapters 10-12 Summary and Analysis

Chapter 10 - Restoring the Guardian

Upper-income homeowners in the early 1970s began heating pools with solar energy. They could afford to make the changes necessary to gain tax credits for their environmental efforts. This upset those in lower income brackets who felt they couldn't afford luxuries to begin with. For a true environmental movement, there has to be an effort from everyone—poor or rich. Environmentalism cannot be based on the actions of the highly educated. The author proposes that we come up with a way to address the problem that involves both commerce and people.

Instead of focusing on a solution, there should be a focus on change. Jane Jacobs wrote a book entitled *Systems of Survival*. In this book, she proposes that society can be viewed as encompassing two moral syndromes. One is the "guardian" syndrome, and the other is a "commercial" syndrome. Jacobs believes that society should separate the two functions as completely as possible.

In the past, successful businesses had to provide products to the consumer for the lowest price possible. This meant that there was a strong emphasis on cheap labor and cheaply made products. Businesses were not inspired to consider environmental costs. Today, businesses should realize that they need to look beyond money to the quality of life as well. When politics become part of the picture, it should focus on the greater good for all citizens, and not just money. To do this, there needs to be initiatives such as green taxes, which inspire innovation and the reduction of reliance on natural resources that can't be replaced.

Chapter 11 - Pink Salmon and Green Fees

Economists and ecologists assess efficiency differently. While an economist might measure efficiency in monetary terms, an ecologist views efficiency in terms of conservation of resources and thermodynamics. That said, there are many areas in which an economist and an ecologist might agree. For example, any time inefficiency is equated to pollution or waste, it is uneconomical and more costly.

In today's world, the richer industrial nations are searching for productivity and higher profit. Due to this, unemployment is on the rise. However, with the proper incentives, businesses would be more focused on increasing energy efficiency, which would help the carbon dioxide problem and also promote an increase in jobs and economic growth.

Taxing energy is an example of a green fee that would be the most fruitful and beneficial. There should also be an increase in green taxes that address eliminating toxins from food and water. Instead of living in fear of change, we have to face the fact



that if we don't act now, it might be too late. There is evidence that solar-based energy and other energy efficient technologies are not pipe dreams.

If there is a green tax on energy, industrially produced food will have higher prices. Therefore, the family farmer and a local farmer have a chance to thrive. Another area that could benefit from green taxes is related to travel. If people pay for auto insurance using a tax per gallon, every driver would be insured. There would be a no-fault system that would eliminate litigation, and there would be savings since there would be no need for advertising or salesmen. The energy tax would reduce driving and promote efficiency. Unfortunately, this idea was voted down in 1993. It was protested by special interest groups which included trial lawyers and the insurance industry.

Many of the world's resource systems are over-exploited, and they could benefit from becoming utilities that are publicly regulated, privately managed, and market-based. A perfect example of this would be a salmon utility in the Pacific Coast of the United States. The author challenges the reader to consider how oil utility companies would respond if they were put in a position where they were allowed to receive revenues from a green tax that would repay their investment and give them a share of profits earned from conservation. They would be held "accountable" for saved energy.

Green fees and green utilities will not work with the free trade agreement as it exists now. In order for this to work, corporations must reverse current regulations and propose a new tariff status called Most Sustainable Nation instead of Most Favored Nation. With this system, countries that follow environmentally sensitive practices and culturally sensitive practices would be the ones that prosper.

Chapter 12-The Inestimable Gift of a Future

Proposing solutions to global problems is very difficult. In this case it could work because it is a true global problem, not a local problem that went global. The solutions presented in this book are both broad-based and specific. Although some steps are taken in the right direction, it's obvious that things are still deteriorating quickly. The population continues increasing, and the carrying capacity of our ecosystem continues to decrease.

This book proposes three approaches, which are all guided by examples from nature. The first is to obey the waste-equals-food principle in order to eliminate waste from industrial production. The second principle is to change from a carbon-based economy to one that is based on sunshine and hydrogen. The third principle is to create a system of feedback and accountability that supports and strengthens restorative behavior. Industrialism as we know it needs to change in order for there to be hope for the future.



Characters

The Environment

The idea for this book came about when the author was receiving an award for environmental contributions made by a company he represented. He realized that no business really deserved to receive the award. The environment is created by an ecosystem that has grown for millions of years. By itself, it is sustainable. New growth helps support older growth, and older growth decays and nurtures the younger growth. It's a continuous cycle in which all of the organisms work together to create a sustainable unit.

As business and global trade increased, the environment became more threatened. Toxins and waste killed off a wide variety of organisms, animals, and plants. Natural resources such as coal and oil became more scarce, and the air was filled with pollution. This wreaked havoc with the balance of the ecosystem, and therefore, the environment.

Business

Several hundred years ago, at the beginning of the Industrial Revolution, all businesses wanted to think about was profit. It seemed as if natural resources were unlimited, and the environment was not considered. Now, as we see some of the long-term negative effects of business on the environment, it's obvious that something needs to change. There is a depletion of natural resources, an increase of conflict as countries fight over natural resources, an increase in animal and plant extinction, and an increase in health problems.

International trade has created an environment where business is so big that it's difficult to see the global impact on business pollution. Businesses tend to think they're providing products that make life happier, but don't see the effects of dwindling communities in the rain forests or on the organisms in the waters that are polluted.

Paul Hawken

Paul Hawken is the author of the book. He has ideas for ways businesses can become the catalyst for change as they reverse global environmental and social degradation.

Ivan Illich

Ivan Illich is an author who pointed out that the average American is involved with his or her automobile.



Francisco DiMarco Datini

Francisco DiMarco Datini is a fictional character worried about his taxes, investments, and penalties. The more successful he became, the more his insecurity grew.

David Wann

David Wann is an environmental scientist who claimed that our present industrial economy is an immature ecosystem.

Dr. Michael Braungart

Dr. Michael Braungart, a member of the Environmental Protection Encouragement Agency in Hamburg, Germany, is one of two men who proposed the "intelligent product system."

Justice Englefried

Justice Englefried, a member of the Environmental Protection Encouragement Agency in Hamburg, Germany, is one of two men who proposed the "intelligent product system."

Nicholas Pigou

Nicholas Pigou proposed a cost/price integration in the market system to lead to a more stable economy and a healthier environment.

Jane Jacobs

Jane Jacobs is an author who proposes that society can be viewed as encompassing two moral syndromes, the "guardian" and the "commercial."

The National Association of Manufacturers

The National Association of Manufacturers has stated that it will oppose all so-called eco-taxes or green fees.

Ecologists

Ecologists measure efficiency in terms of thermodynamics and conservation of resources.

Economists

Economists measure efficiency in monetary terms.



Objects/Places

Frogs

Scientists were alarmed to discover that frogs were dying out not only in populated areas, but also in seemingly pristine surroundings due to the effects of pollution.

Industrial Revolution

Over two hundred years ago, this era called the Industrial Revolution was noted for the rise of the power of business. There was no thought or consideration for natural resources, which seemed unlimited at the time.

Renewable Natural Resources

In theory, renewable natural resources can be sustained perpetually. These include leaves, nuts, seeds, grass, water, berries, insects, fungi, bark and fish.

Nonrenewable Resources

Nonrenewable resources can not be sustained perpetually. These include coal, oil and natural gas.

Small Businesses

Small businesses compete against each other by remaining aware of what a product is selling for and at what cost.

Large Businesses

Large businesses compete for the sale of products, but they also compete for investment capital.

Hamburg, Germany

Hamburg, Germany is the location of the Environmental Protection Encouragement Agency where the "intelligent product system" was proposed.



Clean Air Act

The Clean Air Act was proposed in 1970. Twenty years later there was only regulation for seven out of 191 toxins proposed in the initial regulations.

Washington, D.C.

The author states that Washington, D.C. has become a town of appearances and images, where sleight of (political) hand has largely replaced the clumsy system of payoffs, outright bribes and backroom deals of old.

Green Taxes

Green taxes provide participants in the marketplace with accurate information about costs.



Themes

Taking Too Much From the World

In recent years there has been an emphasis on recycling and thinking about the environment. As the book begins, the author is receiving an award as a representative for a company that was recognized for its environmental impact. Still, it's nowhere near enough. Even with the recycling programs and tree planting ceremonies, businesses do more harm to the world than good.

The goal of business is to obtain a profit. Those in business learn to not accept limitations, but rather to push through them. Looking back in time, it's easy to see the negative effects of the Industrial Revolution on the environment. Buildings were coated in grime, and it was difficult to see the sun through all the smoke in the air. Global trade has increased the scope of pollution around the world as business increases. There is a perceived need for natural resources whether they are renewable or not renewable.

Back at the beginning of the Industrial Revolution, the businesses turned a blind eye to their effects on the environment. The same is holding true today. Businesses count on technology, which does work on a small scope. However, in the big picture, technology will not be able to produce the growth necessary to keep up with production.

Instead of focusing on how much they're taking from the world, businesses continue to expand. They rely on technology to offer solutions when they meet environmental limitations. In reality, this is not working. Nature isn't able to recuperate quickly enough, and organisms, plants, and animals are reduced significantly in number. Many are threatened with extinction.

How Our Waste Contributes to Our Demise

While there is a problem with businesses consuming too many of the earth's natural resources, another significant problem is the creation of waste. Industry sends chemicals and toxins into the ocean and waterways. It releases chemicals into the air. It also injects toxins deep into the ground or into landfills and concrete-lined drums. On top of this, the world utilizes 4.1 billion pounds of pesticides a year, and they remain in the environment. Many people think that they can take steps in order to clean up the environment. However, some of the most dangerous examples of waste are chemicals and compounds that cannot be seen.

There are at least a dozen dangerous compounds. One primary example is a bond created between sodium and chlorine molecules using electrolysis. This creates a chlorine gas. The combination of hydrocarbons and chlorine is known as organochlorine compounds. It's sold commercially. The organochlorines do not break down easily, and they can last for up to thousands of years. Businesses release the substance into the



environment annually by the hundreds of millions of pounds. Organochlorines accumulate in water, food, and in our bodies.

These compounds mimic the actions of natural hormones. They bind to receptor sites in the body and can change embryonic development in an organism irreversibly. They can lead to health problems such as abnormal pregnancies, cancer, and changes in the immune system.

Businesses attempt to clean up waste sometimes. They try to clean up areas using tools such as incinerators, which help clean up the waste. However, even the incinerators produce their own level of pollutants that damage the environment and people and organisms in the environment.

Making Changes and Restoring the Environment is a Global Pro

One of the greatest problems faced in making changes that will save the world and our future is the fact that different people from different walks of life view the issue differently. The wealthy get tax breaks for making pro-environmental changes while the poor can't afford luxuries such as having a pool with a solar cover. People in wealthy countries enjoy the benefits of having large quantities of food and many products at their fingertips, and they don't look around to see the impact their luxuries have on the rest of the world. Those who can afford an education learn about environmental changes, toxins, and pollutants while those who are uneducated are left in the dark.

Near the end of the book, the author addresses the concept of making global change. He points out that working on a global issue is generally futile because problems arise locally and then turn into global issues. However, he points out that the ecological disruption caused by the way we live is not merely a local issue. It is a global issue, and it must be addressed by all people in all walks of life—rich, poor, educated and uneducated. Instead of concentrating on complete change, everyone must think about practicing and working on developing new ways to live that sustain and contribute to the environment, thereby restoring it.

Instead of letting large businesses make the rules for the entire economy, small businesses and individuals can take the first steps towards making a difference. They can do this by making sure they use eco-friendly products and by educating consumers.

Style

Perspective

The Ecology of Commerce Revised Edition: A Declaration of Sustainability by Paul Hawken is written by a man who has made a career of challenging basic business assumptions. He is an active part of the business world, but he also sees how things can be better.

In the preface, he speaks in first person, addressing why he wants to write this book and what he hopes the reader will gain from it. He points out a clear structure for the book. Although much of the material in the book is subjective, the author provides studies and examples to show more than personal opinion.

He takes complex issues and breaks them down into an interesting, readable format. As a result, the reader gets the feeling that they are part of the team trying to create solutions for a problem. The author is not condescending toward the reader, and he informs rather than preaching. This is demonstrated in the end of Chapter 3 where the author talks about the big corporations in the synthetic chemical production business. He points out that if they are in business to serve people, they could use and employ the ingenuity of workers in order to improve the lives of people around them by studying nature.

Tone

Negatives are addressed, but the tone of the book is not dark. Instead, it's hopeful since the author also recommends some solutions. The tone is serious and informative, yet not too heavy. The author backs up important points with real-life examples and research. All the research is backed up in a "Notes" section at the end of the book that is arranged by chapter.

Structure

The Ecology of Commerce Revised Edition: A Declaration of Sustainability by Paul Hawken is a 250 page book that is broken up into a Preface and 12 chapters. Each chapter is approximately 20 pages long. The heading for each chapter highlights a key element in the chapter. At the end of the book, after the last chapter is complete, there are three pages of acknowledgments followed by almost 40 pages of notes, arranged by chapter, citing reference material and resources. This section is followed by a detailed index comprised of nearly 10 pages. In the preface, the author addresses how he breaks up the book. Chapters 1 through 3 and 6 to 8 address problems associated with the environment. Chapters 4 and 5 and 9-11 offer specific routes to accomplish objectives to create a better world for everyone.

Quotes

"...Our human destiny is inextricably linked to the actions of all other living things. Respecting this principle is the fundamental challenge in changing the nature of business." (Preface, p. XVI)

"We have the capacity and the ability to create a remarkably different economy, one that can restore ecosystems and protect the environment while bringing forth innovation, prosperity, meaningful work, and true security." (Chapter 1, p. 2)

"While commerce at its worst sometimes appears to be a shambles of defilement compared to the beauty and complexity of the natural world, the ideas and much of the technology required for the redesign of our businesses and the restoration of the world are already in hand. What is wanting is collective will." (Chapter 1, p. 17)

"Business is such an efficient form of human endeavor, with so many positive attributes, that it is difficult to comprehend how it has become so destructive-how, in effect, it has written an unnatural history of the world." (Chapter 4, p. 57)

"Value is what we ascribe. Prosperity is what we make it to be." (Chapter 5, p. 60)

"Enormity, corporate or otherwise, has never been a friend of humankind." (Chapter 6, p. 102)

"Washington, D. C., has become a town of appearances and images, where sleight of (political) hand has largely replaced the clumsy system of payoffs, outright bribes and backroom deals of old." (Chapter 7, p. 111)

"We have elevated ideology and mores of corporate life into a belief system before which we pay homage, and we have allowed it to take over our political system." (Chapter 8, p. 123)

"A cardinal principle and practice of any new business should be to perform tasks and services that are sustainably produced and/or promote sustainability in society as a whole." (Chapter 9, p. 139)

"If there is to be an ecologically sound society, you will have to come from the grassroots up, not from the top down." (Chapter 10, p. 161)

"We must go further than merely levying a carbon tax on energy, and a few significant green taxes on hydrocarbon-based chemicals, replacing them processes derived from organic, nonpolluting, renewable resources." (Chapter 11, p. 181)

"According to the science advisory board to the EPA, pesticides, herbicides, and fungicides applied to our soil foods pose the greatest environmental threat to American citizens other than the global threat such as ozone depletion, global warming, and overpopulation." (Chapter 11, p. 186)

"The creation of a new story for America, a recovery of the common would insure that once again life is celebrated on earth." (Chapter 12, p. 219)



Topics for Discussion

Why did the author feel that no business deserved the environmental award?

The author points out that there is a problem in what businesses take from the environment. What does this mean?

The author addresses the amount of waste in business, and he shows how it harms our world. Explain what he means and back up your comments with specific examples.

What is the difference between oikonomia and chremastistics, and how would the world be better if there was more of a focus on chremastistics?

Describe Pigou's solution in depth and explain how it could better the world.

What are some of the problems the world faces in regards to big business, and what does the author propose as solutions to problems caused by big businesses?

How can the people of the world unite together to save our earth?