

Abstract

Today, being human means producing vast amounts of waste. Specifically, wastes are items that are not currently being put to use, whether it be the intended use or a creative use, and are unnecessary or excessive; some definitions go as far to mention the replenishment of the resource being necessary to mitigate waste. There are categories of waste, some more prevalent and some more harmful than others. Common wastes may include plastic, styrofoam, pet feces, abandoned structures, uncared for compost, many other material items, time, and energies of all types (body/mind and machinery/technological); all of which can and do negatively contribute to overall environmental health. Analyzing the amounts and kinds of waste that humans produce is crucial to the survival of the Earth and all earthlings (living beings; plants, animals, bugs/insects). The destructive choices made by the human species create many social, mental and physical health, environmental, and faith related struggles around the world; a choice of action taken in Pittsburg, KS will impact other locals, the United States, other lands, and the water cycle. While there are many details of this all-encompassing problem, there are also various mitigating factors that can positively impact multiple aspects of the issue with any sort of engagement present. There are countless positive actions happening helping reduce the negative impact; activists around the world are spreading awareness and providing opportunities for others to become involved in any of the above issues, or all of them. As earthlings are all connected, the choices made within a daily-living context are crucial for overall health. With conscious behavioral changes of humans, the problems that present themselves today will continuously progress in positive directions that benefit the overall environment for all earthlings.

Introduction

Understanding the reality that earthlings have reached at this point in time, being destructive in/of nature, allows the human population to continue to question if there are more effective and positive options of how to live. Individuals and societies are surrounded by, and seemingly reliant on, chemical-based inanimate objects negatively impacting overall earthling health. Mental states are dwindling in all corners of the world; almost 1 billion out of the 7 billion human earthlings are suffering from many mental health challenges; depression, anxiety, and addictions being among the most prevalent and occurring comorbidly in many of them (Ritschie & Roser, 2018). In relation, problematic somatic health (especially with COVID-19) is higher than ever; cardiovascular disease (accounting for 17.9 million deaths), cancer (lung cancer alone causing 1.8 million deaths), diabetes (700 million living with), and death caused by other chronic illnesses are common results of the current situation (Elflein, 2021). Further correlation of mental and physical issues can be caused by the endless pursuit of material items.

In the context of the United States, Psychology Today traces this drive back to the 1870s gold rush in California; where we saw the destruction of the existing Native American population and the region's natural resources (Taylor, 2012). While many seem to chase happiness through the gaining of monetary and material wealth, study after study shows that happiness is the result from the fulfillment of basic needs including only earthlings (water, food, oxygen, and the feeling of safety within an environment). In fact, these very studies prove that the gaining of monetary/materialistic wealth is health-beneficial only for those in extreme poverty, providing some relief from being able to meet basic needs. On the other hand, those with this "comfort" are actually burdened with these things; cleaning, keeping track of,

replacement/repairs, packaging, and destruction of Earth (including themselves) in the process of accumulation (Taylor, 2012).

“As human beings, it is normal for us to experience an underlying psychological discord, caused by the incessant chattering of our minds, creating a disturbance inside us and often triggers negative thoughts... the strong sense of separation many of us feel, the sense of being isolated individuals living in a world which is ‘out there,’ on the other side of our heads... looking to external things to try to alleviate inner discontent... bolstering fragile egos... by accumulating wealth and possessions. It only works for a very short period of time and depends on comparing yourself to other people. Buddhism teaches, desires are inexhaustible. The only way of alleviating this psychological discord is by trying to heal it, not by trying to escape it.”

(Taylor, 2012).

Purpose

There is a need for awareness of the current destructive reality, in order to be able to adapt to a healing one. Knowing that nothing ever can be ‘thrown away,’ but merely relocated is a key point to sustainability. Knowledge is a start, and taking action is what impacts change of attitudes and behaviors. A goal for this literature review is to motivate and inspire human earthlings about potential sustainable action opportunities to implement for themselves, families, and communities; these practices have already been developed and are malleable to fit personal needs. Each one of the hundreds of choices each earthling makes every day affects the Earth in a helpful or hindering way; hence why it is so important to be conscious in taking action. Another purpose of this review is to bring these ideas of sustainable actions into one document for two reasons; the first being that the many factors of the problem are all connected (such as

earthlings), and the other reason being ease of access to this information to promote understanding, creativeness, collaboration, and implementation.

Materials

Evidence-based research from articles/journals/activist pages/and other qualified resources will be provided to ensure the most current and accurate earth-benefiting information and practices.

Water conservation is more important than ever with the excessive use and pollution of this natural resource. Major pollutants include the agricultural industry, household resource waste, and factory industries. These human-maintained infrastructures are very reliant on excessive use of indoor plumbing and creation of water-based substances, polluting water supplies with chemicals and debris.

As far as household usage, Water Science School's article points out that the average person runs 80-100 gallons of water per day in their homes (U.S. Geological Survey (USGS), n.d.); consisting of toilet flushes, washing machines, dish washing, lawn care, cleaning, cooking, and drinking water. When using faucets, the level of water pressure is important to pay attention to; each faucet has different rates of how much water is let flow per minute. Kitchen faucets can range from 1.8 - 2.2 gallons per minute. Newer model dishwashers use about 6 gallons per load, while more dated ones use 10 gallons. The average clothes washing machine of newer models is about 31 gallons per load, while older models usually use over 40 gallons. Toilets average 5 - 8 gallons per flush, though new models can be as low as 1.6 gallons.

The farming and agriculture industry is another large contributor to water consumption and pollution. There are many statistics floating around about the industry's overall water usage,

though figures range in the trillions of gallons. Some research sources provide information regarding this topic; one written by the United States Geological Survey's Livestock Water Use (2015) and the United States Department of Agriculture's Irrigation and Water Use (2019). Another resource, Kiss the Ground on Netflix and a dedicated website, provides a structural understanding of how the sector's practices affect the soil, water, and emphasizes the connections within the natural system; impacting all the other earthlings. It is somewhat difficult to comprehend the difference between the trillions of gallons actually used and what portion of that water is truly necessary.

Food and household waste from restaurants, grocery stores, and households take up vast amounts of space in landfills; space that could be utilized for more important items to remove from the environment (such as less environmentally-friendly materials) and those which are not able to be utilized further. However, there are many technological advancements, based on location, that facilitate the recycling of items such as styrofoam, rubbers, diapers, feminine hygiene products, bathroom materials, electronics, cosmetics, and other items. The uneaten food materials could be put to better use in composting areas, donation to food rescue operations, and generally an increase of distribution within a community. Over 2.6 billion people of all ages around the world are suffering from malnutrition (under or over compensated) and starvation because of climate change, improper distribution of food, location, etc. Many food industries such as dairy and meat, mass harm and slaughter animals unnecessarily. The byproduct from this practice may or may not be put into use, whether that be food, breeding, fighting, etc. Not to mention the vast amounts of carbon dioxide emissions from methane, factories, and livestock's eating of vegetation from grazing. Alternatives to shopping at Walmart/SAMs/Costco/other major grocers include purchasing from local farmer's markets, growing a garden, trading

goods/services for a neighbor's garden produce, shopping on sites such as ImperfectFoods, learning about what plants can be eaten from a yard or in the surrounding natural areas, and other options depending on location. When shopping anywhere be sure to check the ingredients of the food, where the food is distributed from, how the food is packaged (if at all), all the options of similar products (make a list and a budget if needed or possible) to ensure consumer dollars are supporting the companies with values and missions pertaining to earthling health. According to the U.S. Department of Agriculture's economic research service, totals of monetary funds spent on food imports in 2017 was \$137,236,600; about \$34 million in animal products, about \$81.5 million for plant products, and about \$22 million in beverages.

Energy usage is the broadest topic as it is literally the very foundation of life. Energy cannot be created or destroyed, only harnessed and put to use, positively or negatively. Everything in our lives consists of some form of energy; earthlings, creation and maintenance of infrastructures (residential and commercial), transportation methods, industry/manufacturing, appliances, and technology. There are many forms of energy to harness and utilize; including mechanical, thermal, nuclear, chemical, elastic, electromagnetic, sonic, gravitational, kinetic, potential, ionization (ThoughtCo., 2020). Electricity is excessively used by the industrial sector and households; lights being left on through all hours of the day and night, electronics being plugged in constantly (whether they are in use or not in use), appliances that store and cook food, vehicles, and other commodities. Electricity usage creates pollution through various forms of emissions; heat input and output, resource usage (metals, magnets, land space) to create the energy, greenhouse gasses, and others. There is a complexity to how electricity affects the environment; different technologies that utilize it put off different electromagnetic wave types, such as gamma, x-rays, microwaves, ultraviolet, and radio (ThoughtCo., 2020).

Heating/cooling of houses and business buildings, to meet comfortability standards of the society, is another avenue of waste. For a home, the average temperature is 68 - 70 degrees Fahrenheit. Buildings are cooled in the summer and warmed in the winter, the exact opposite of how the natural world functions; this is counterintuitive in that both those actions significantly heat up the ground level and atmospheric level. The infrastructure itself radiates heat from the solar energy bouncing off of the material of the building (bricks/stones, metals, woods, etc); this paired with the demolition of the natural ecosystem that would help balance the heat radiation by consuming our output energies, such as carbon dioxide. With aging infrastructures, the insulation is not adequate for keeping the indoor temperature regulated efficiently or sustainably, meaning that more energy is being put into the maintenance than can be retained in the infrastructure. This creates financial burdens; the more energy is used, the more money is spent, taking away from other life necessities. Motor vehicles create various forms of emissions; focusing on gas/diesel vehicles, the main emission is carbon dioxide. The gas itself is an issue; however, the process as a whole of extracting and shipping of the substance is destructive as well. Extraction of this resource is removing the carbon from the ground and putting it into the atmosphere from which earthings breathe; the machinery used also demolishes Earth that it touches and disrupts all forms of life. The transportation of the resource is troublesome, if there is a spill, there are many detrimental repercussions that affect the whole environment (Department of Natural Resources, n.d.).

Methods

An overarching goal of sustainability is for the individuals, communities, and human population to use resources as needed, rather than as wanted. As an environmental activist, practices that have been implemented and adapted by trial and error of personal actions will be

included; identified as ‘Personal Practices’. As a social worker, advocating for justice and ethics for individuals, families, groups, organizations, and communities is in part accomplished through presenting trustworthy information and resources; hence the evidence-based research.

Water conservation has been a large focus of personal practices. From observation there is much unnecessary use of water within daily choices. A single toilet flush can use up to 8 gallons of water, depending on the toilet model. A general rule of thumb to reduce is “if it is yellow let it mellow, if it is brown flush it down.” When utilizing water, less is more. Water is quite effective for its uses even in smaller amounts. In addition, reusing as much of the water as possible is another way to get the most use out of water as possible. Washing full loads of clothes and with cold water reduces the amount of loads ran and saves energy from heating the water as well. Reusing dishes when safe to do so or washing them while they are hot from cooking saves time, water, and energy of heating the tap water.

Food waste is an essential personal practice and one that started the domino effect of behavior changes in other areas of living. First and foremost, if the product came from Earth, return it to Earth. Composting is easy to maintain, simply put the food scraps out in a patch of Earth, stir the top with feet/rake/shovel/pets at least every week, and turn all the scraps and dirt about once a month. Time spent tending to the Earth depends on the size of the compost pile. Personal practice provides needed outside time, self care of reconnecting with the earthlings in the environment. Making conscious and educated decisions about when, where, who, and what to buy is crucial. Fresh foods, such as fruits and vegetables, are available in seasons. Harvesting food out of season requires unnecessary use of resources as well as disrupting the natural order; in terms of how a plant grows, there are optimal growing conditions that occur at specific times throughout a calendar year, including sun exposure, water intake, microbes present in the soil,

temperature (ground and atmospheric), oxygen levels, other plants growing, and animals migrating that help move dirt around. Bodies are also naturally evolved to digest different foods at certain times based on the above environmental factors as well; “chronically eating out of season leaves the body ill equipped to digest in the way bodies were designed,” (Douillard, 2020). Portion sizes are another aspect to be conscious about. Within the United States, the general culture is to go big or to go home, causing people to eat more than is comfortable and more than a body can healthfully digest. There are some ways to regulate a healthy portion size, which is different for every earthling. One is the size of the dish the food is being served on; when a bigger dish is presented, one may feel the need to fill it all the way and push to eat all of it. Another is to listen to your body; food digests much slower than the rate at which eating occurs, generally taking 36 hours to fully digest it and rid of the excess (Rajan, M.D. 2019). With the advancement of importing and exporting, due to the consumer request of options/condition/reliability/accessibility, hundreds of millions of dollars are spent on imported foods that also go against the natural order, necessitating more resource use, etc.

Energy reduction and replenishment are the main mitigating factors that the human population needs to focus on. There are many personal practices that can be done at home and within the work environment. A simple personal practice that can be done everyday is to go to an area with trees and find some dried up fallen leaves, pick up about a handful and rub them all together to break them down into finer pieces. This practice puts carbon within the leaves back into the ground to help replenish it, as well as being a potent and free fertilizer that will help the environment around it prosper with life. Composting is another way to put carbon back into the ground, through a similar process described above and also simple and fairly easy to maintain.

Fire ashes (from natural burning materials, not general trash or with lighter fluid) is a great source of carbon and can be sprinkled around the ground.

Within the house, there are many actions and practices that can be taken. Turning off a light when exiting a room is an effective habit, especially for the wallet. Using cold water and a full load to wash clothes will prevent use of a water heater which uses more energy than many other appliances, along with hanging up clothes to dry rather than using a drier; combined these will save energy and money. Unplugging appliances such as toasters, coffee makers, lamps, power strips, televisions, microwaves, space heaters, hair electronics (straighteners/curlers), can openers, electric toothbrush chargers, electronics chargers, and any other item that plugs in; even if the appliance is not on and running, ghost power still utilizes energy while idly sitting.

Regarding maintenance of infrastructure's temperatures, a newer innovation called a green roof has been progressively implemented in city areas; Kansas City is an example (United States Environmental Protection Agency, 2018). A green roof is an alternative to having a bare roof; having a vegetated roof provides a space for an ecosystem to grow and provide overall environmental health relief, including mental health as exposure to the natural environment helps balance life and provide distractions from negative aspects. Utilized energies to maintain indoor temperatures escape into the atmosphere with most buildings which additionally heats the environment; green roofs will significantly increase insulation and the vegetation will absorb the solar energy and carbon in the atmosphere (United States General Services Administration, 2011).

Perhaps the most important and most undervalued energy that needs to be replenished is human energy; with as much time the population spends at work and doing errand-like tasks that generally have little to do with natural occurring life (taxes, cleaning, driving, etc), not enough

restorative energy is being replenished. Social work likes to refer to various restorative practices as self-care; taking time to rejuvenate the mind, body, and soul to be able to continue functioning at the levels put into work. An essential and daily personal practice is being outside to reconnect with life in the surrounding environment and to bring peacefulness within thoughts and actions, relearning what it means to be a part of the natural world. Another two personal practices that generally go hand-in-hand are yoga and meditation, allowing focus to remain on the movements of the physical self and feeling how to move in a way that may help relieve and prevent tension, as well as clearing the mind's thoughts of daily distractions from life that can lead to the tensions in the first place. To further understand how the individual mind functions, journaling or writing helps work through troubling or exciting thoughts and can provide some insight into one's thinking and behavior patterns.

Conclusion

Clearly there are many factors that contribute to the environment. While there are quite a few listed within this review, there is an endless supply of others. In order for human earthlings to be able to make conscious decisions about these many things, identification and understanding on an individual, communal, and worldly level must be present. Questioning the things and practices that can be observed in the environment is a beneficial first step. It is a challenge to begin and continue diving into these topics, as there are so many and the complexity of some may be out of individual's hands; however, as individuals collaborating within the community, humans can reduce, reuse, recycle, repurpose, replenish, regrow, and reinvent the very things that distract from the natural life.

References

Big Picture Ranch. 2020. Kiss the Ground Movie. *Kiss the Ground*.

<https://kissthegroundmovie.com/>

Department of Natural Resources State of Louisiana. N.d. Where does my Gasoline Come From?

Louisiana Department of Natural Resources.

<http://www.dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=244>

Douillard, J. 2020. Stanford study backs seasonal eating for the healthiest microbiome. *LifeSpa*:

Ancient Wisdom meets Modern Science.

<https://lifepa.com/stanford-study-backs-seasonal-eating-for-healthiest-microbiome/>

Elflein, J. 2021. Deaths caused by chronic diseases 2019. *Statista*.

<https://www.statista.com/statistics/265089/deaths-caused-by-chronic-diseases-worldwide/>

Rajan, E, M.D. 2019. Digestion: How long does it take? *MayoClinic*.

<https://www.mayoclinic.org/digestive-system/expert-answers/faq-20058340>

Ritchie, H. & Roser, R. 2018. Mental Health. *Our World in Data*.

<https://ourworldindata.org/mental-health>

Taylor, S; Ph.D. 2012. The Madness of Materialism: Why are we so driven to accumulate possessions and wealth? *PsychologyToday*.

<https://www.psychologytoday.com/us/blog/out-the-darkness/201203/the-madness-materialism>

ThoughtCo. 2020. Types of Energy. *ThoughtCo*.

<https://www.thoughtco.com/main-energy-forms-and-examples-609254>

United States Environmental Protection Agency. 2018. Estimating the Environmental Effects of Green Roofs: A Case study in Kansas City, Missouri. *EPA*.

https://www.epa.gov/sites/production/files/2018-09/documents/greenroofs_casestudy_kansascity.pdf

United States General Services Administration. 2011. The Benefits and Challenges of Green Roofs on Public and Commercial Buildings: A report of the United States General Services Administration. *GSA*.

https://www.gsa.gov/cdnstatic/The_Benefits_and_Challenges_of_Green_Roofs_on_Public_and_Commercial_Buildings.pdf

U.S. Department of Agriculture Economic Research Service. 2018. Summary data on annual food imports, values, and volume by food category and source country, 1999-2017. *U.S. Food Imports*.

<https://www.ers.usda.gov/data-products/us-food-imports/us-food-imports/#All%20tables%20in%20one%20file>

U.S. Geological Survey, Water Science School. Yr. Water Q&A: How much water do I use at home each day? *USGS Science for a changing world*.

https://www.usgs.gov/special-topic/water-science-school/science/water-qa-how-much-water-do-i-use-home-each-day?qt-science_center_objects=0#qt-science_center_objects