Example of essay on water and our biosphere a planet in mutiny

Education, Sustainability



For too long, we have tried to ignore a sneaking suspicion that as a race of people we cannot continue to use our planet's resources in the way that we are accustomed. It has been said that we are " long on things but short on time" (see Durning 179, for example). In this essay I will look at why that is: how stress is being placed upon our water resources and upon our biosphere as a whole, and how this is generating conflict between people, governments and personal values; in addition I will consider specifically what, if any,

responsibilities should be shouldered by individuals, corporations and governments to find solutions to these issues, and to minimise the damage we are causing in the meantime.

In his article, " How Much Is Enough?", Durning calls readers to pay attention to the environmental destruction our consumer lifestyle is wreaking on our planet, with the damage spreading from one nation-state's region to another. Durning notes that industrial countries are responsible for approximately three-quarters of the sulfuret and nitrogen oxides that lead to acid rain (177), that a pursuit of national security has led to them building more than ninety-nine per cent of the nuclear warheads stored anywhere and producing almost ninety per cent of the chlorofluorocarbons that are harming our ozone layer. Even a growing demand in developed countries for something as simple as a hamburger is causing problems: the industry guzzles energy, ruins our water, pours out greenhouse gasses and demands we produce ever-larger crops of feed for animals destined for slaughter, with the domino effect of decimating our rainforests (Bittman). Durning highlights deforestation from another angle (178), writing that Fiji has lost over 4 000 hectares of mangrove forest and the Caribbean island of Saint Lucia has

seagrass ecosystems silted up from the farmers' practice of clearing forests and crops for banana plantations. Leslie concurs, reporting that China's appetite for consumerism has seen its sulphur-dioxide emissions harm ecosystems in Korea and Japan, and even going so far as to reduce air quality in the United States (2). However, the list of issues continues, with logging, especially illegal logging, responsible for major destruction in China and beyond.

China has been called " the world's workshop", importing wood and then selling " more than 30 per cent of the international furniture trade" (2). Leslie writes that in 1998 China began to understand the effect of deforestation on their own land, when the Yangtze River broke its banks in the largest flood in half a century — after lowlands were emptied of water to make way for agriculture and the forests were felled, precious topsoil was easily carried by the deluge, filling the Yangtze and causing it to spill over. Consequently China began to protect its remaining forest and look elsewhere to source its appetite for timber. While some governments have laws to protect their own remnant of forest, these law have proved difficult to enforce (3).

Leslie continues, noting that as much as eighty per cent of Indonesia's logging industry is illegal and results in the degradation of much of Papua. Local people are not well-compensated either, receiving eleven dollars per cubic metre while the processed timber fetches over two thousand dollars per cubic metre in Europe or the United States. Further to the injustice to people and the already-mentioned effect on environment, deforestation has cause another large problem in China: bigger deserts.

As forest have come down and meat-producing animals are brought in, people are becoming poorer. Deserts have long been part of China's geography; however as grasslands and forests are cleared, dust becomes more of a problem than sand: it's easier to carry, and while dust storms once occurred less than annually, they occur now " at least 20 times" each year, with the effects reaching over 7 000 miles to the western Pacific Ocean (Leslie 3). Our lungs don't cope with the size of dust particles, with the result being an increased incidence of respiratory disease and sometimes a shorter lifespan. However, it is not only our management of soil and dust that leads to a higher incidence of disease.

With China opening a coal-fired power facility " every four to seven days" (Leslie 4), carbon emissions continue to increase rapidly. The resulting sulfur dioxide has been blamed as China's biggest pollutant (4), causing problems with our respiratory system and increasing heart disease, and high levels of carbon monoxide, ozone and mercury have been detected from the Asian region, reaching the US. The coal is responsible too for increasing mercury emissions which are carried to the US. Mercury's effects on human health result in foetuses and children having limited neurological growth.

On top of mercury, nitrogen oxide results from the burning of coal, inflaming our airways, causing " coughing, wheezing and chest pain" (4) and raising ozone levels.

In addition, Russia has passed laws which protect forest except in case of fire, resulting in many illegal loggers setting fire to the timber so that they may export it. " In 2003," writes Leslie, " Siberian forest fires covered 73 000 square miles that drove ozone levels above EPA limits in Seattle, 5 000 miles away."

Coal consumption, both in China and the rest of the world is wreaking havoc on ecosystems. In China alone, the arid region to the north is becoming drier, the south is being inundated more often with more rain than is needed, and in 2007 Greenpeace reported that eighty per cent of Himalaya's glaciers " could disappear by 2035" (4). When the people of China protest, however, they are often silenced and sometimes killed (Leslie 1) by their government intent on exerting its power. While the damage to our biosphere in general is a problem of growing urgency, the reality of our diminishing water supply is an immediate threat to which we must find a solution.

Whether we listen to officials in Colorado or California (Gernter) or a scholar familiar with Sudan (Polgreen), water is a resource that is getting more difficult to find.

However, the prime reasons for water scarcity differ. Gertner writes of climate change and lowering dam levels, while Polgreen cites sources who assert the issue is not so much the volume of water available, but the way in which it is managed. Sudan's culture suffered under the rule of Imperialists, with traditional grazing being replaced by mechanical agricultural systems. Solutions today cannot be as short-term as creating isolated pockets of well-

watered living estates, or conflict will result from too many people trying to share that space. More weighty in this region than climate change is the battle for power. Gertner's report concludes that " It is a conflict between those at the center of the country, the elites who have controlled Sudan and its wealth for the past century and a half, and the desperately poor people who beg for scraps from the periphery." It is not only Sudan facing the dilemma of restricted access to water, but the shortage is experienced by over one billion people worldwide, with this limited access increasing " poverty, disease and early death" (Segerfeldt).

With governments responsible for delivering water to ninety-seven per cent of the poorer nations, the public sector often negotiates with the private sector for assistance. Many see a danger here, believing that private ownership of water will drive up the cost of this resource, yet Segerfeldt argues that this increases peoples' access to water. Rather than being scared off by the idea of privatization, Segerfeldt encourages people to distinguish between well-regulated privatization and systems that are " sloppy". While it might be easy to assume developed countries do not face this struggle for power, even those who manage water in the US understand that a " free-market water exchange" would result only in the rich taking what they want, and the rest of the people having no access to this lifegiving resource (Gertner). However, in the West water ownership is seen as only one facet of the problem, with climate change being a more pressing issue. Those tasked with the responsibility of sourcing water for their growing communities in the US recognise that, with a climate drier than expected over past decades and with water virtually irretrievable when used in products such as cola drinks, or watered into gardens and fields, they must think in terms of reduced consumption. Gertner notes that authorities are suggesting measures such as water-efficient appliances in homes, increasing efficiency in irrigation, using wastewater for toilets and watering yards, and making water more expensive. Gertner reports that water consumption in the United States is has reduced over the past twenty-five years with consumers barely noticing. However, we might feel as though the problem is just too big, or be caught in our own consumerist world and ask ourselves, " are we responsible?"

In a word, yes. In the 1997 movie Princess Mononoke, the prince realizes the only way that people and the forest can avoid destruction is for them to make peace with one another. This is a healthy beginning for us as individuals as we consider what we want our planet to look like in the next decade and the next generation. The issues we face regarding water and our biosphere are that immediate. We cannot escape them as our own health and future depends upon the health of our biosphere and the availability of decent water. It is individuals who create and run corporations and governments, so it is at the individual level that we need to begin. It is as individuals that we change the views of our nation, using our freedom of choice to influence the circles in which we work and socialise.

ample Page 8 Ir penchant for meat

While addressing other remedies for the way in which our penchant for meat destroys our environment, Bittman particularly argues for creating a culture that simply consumes less. How much meat do we really need? How big do our houses really need to be? As well as eating less meat and settling for homes of an adequate, rather than a showy, size we can use less water, and for the middle and upper classes of society, this should not impact too heavily upon our lifestyle. We can begin with the easy options of installing water-saving devices in our homes and watering the garden by hand instead of with a sprinkler. Gertner writes that one day we may think of a " water footprint" in the same way we currently note our " carbon footprint". Building on our individual response, Postel outlines the concept of a " water ethic" which would see individuals, corporations and governments recognising the right of " rivers and the life within them" to " have a right to water".

The idea of our ecosystems and our biosphere having "rights" is catching on, with South Africa allocating water both for the people and for the future good of South Africa's freshwater ecosystems. Individuals from other countries, using their power as voters, can call immediately for their own nations to implement these ideas.

Corporations can show leadership by bowing less to the pressure of high profit and competition for growth, and instead investing in efficient use of water in manufacturing and agriculture, as well as being responsible in disposing of waste so that it does not pollute waterways. In the longer term this makes good business sense: consumers cannot buy their products if we

destroy the planet to a point where we no longer exist. Governments, too, must make the proper disposal of personal and industrial waste a priority: in China lack of treatment of wastewater combined with agricultural waste is killing fish and causing " red-tide outbreaks" (Leslie 2). Governments must also cease blaming other governments, citing their developmental models (5); while it is true that every country is contributing to degradation, every country must begin to make a change.

One way Governments can show change is by adopting an ethical approach and " selling" it to their voters as leading the way to a future that will provide for generations to come.

After researching the problems of our biosphere and, more particularly, our water, it is clear that degradation of resources affects not only one region, but extends across the planet. Conflict can occur when resources become scarce or habitats are damaged, and this may become more common if we do not find solutions soon. I believe that ethics must play an increasing role in the way we think about our resources, particularly in valuing our water and the systems associated with that. Each of the sources examined contributes a particular viewpoint and these must be taken as a whole if we are to make any real difference in the way our waterways, soil, agriculture, meat industry, forests and biosphere are managed. Individuals must realise the personal cost of not taking action, corporations must recognize they are using elements of our planet that belong to all of us, and governments must enforce existing legislation that protects our resources, and enact new, more efficient, " long-term" methods of management.

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