

# COMMENTARY

T&amp;G FACULTY FORUM

## What can we do to reduce our negative impact on the environment?

While Central Massachusetts has been battling regular snow and sub-zero temperatures, other areas of the country and planet have seen devastating wildfires and other types of natural disasters. A recent United Nations report shows that if nothing is changed, not only will environmental problems get worse, but they will also affect more people. What can be done by the average person to reduce our negative impact on the environment, and decrease the likelihood of natural disasters, here in Central Massachusetts, and elsewhere in the world?



**Prajwal K. Panday, Nichols College**

Rising sea levels, extreme weather, and severe flooding are some of the impacts of climate change we experience in Massachusetts. Each of us can take several steps to shift from our dependency on fossil fuels to avoid long-term risks. We can start locally by reducing our energy and carbon footprint (switching to renewable energy, eating more of a plant-based diet, and minimizing waste), communicating with local and state representatives, and joining a local organization that focuses on the environment. However, we are running out of time without urgent and collective decisions at the federal, national and international levels.

Massachusetts has taken bold actions and initiatives to combat climate change. Greenhouse gas emissions for the state are on course for its 2020 reduction goal, with a target of achieving 80 percent reduction by 2050. Recently unveiled legislation proposes the state transition to 100 percent renewable electricity by 2035 and 100 percent clean power for transportation and heating by 2045. Massachusetts has provided funding to several municipalities to work with residents, communities, and businesses to be proactive in reducing climate change risks. Boston, for example, has adopted a Climate Ready initiative, which focuses on several projects to protect the city neighborhoods from severe weather and sea-level increases. The total cost may exceed \$1 billion, but these are the time-sensitive issues we must consider.

Despite progress, recent climate reports have indicated that mitigative actions against climate change must be more aggressive. This may take the form of the Green New Deal, supported by Massachusetts lawmakers and unveiled by U.S. Sen. Ed Markey and U.S. Rep. Alexandria Ocasio-Cortez. This 10-year plan emphasizes a holistic approach of climate solutions focused on greening infrastructure, dramatic expansion of renewable energy, and job creation — all while promoting justice, equity, and sustainability.

*Prajwal K. Panday, Ph.D., is professor of environmental science at Nichols College.*



**Bryant William Sculos, Worcester State University**

Americans are increasingly



**Workers pick through recycled goods at the E.L. Harvey & Sons single-stream recycling and sorting plant in Hopkinton in January. (DAILY NEWS FILE PHOTO/ART ILLMAN)**

bombarded with messaging to live “green.” In most cases it is fair to say that these recommendations are well-meaning. The problem is, given the enormity of the global environmental crises we face and will continue to face, these individualized solutions are no solutions at all.

100 companies account for over 70 percent of industrial greenhouse gas emissions globally. We must demand that the companies (and politicians) that benefit from the continued degradation of our planet are the ones who bear the brunt of the cost of resolving it. Organized action, starting in our communities, is the best way to make sure that happens.

In Worcester this means, in addition to enforcing an ecologically-sensitive building code, demanding higher taxes on corporations and developers — money from which can be used to revamp the city’s public school infrastructure so our children aren’t at risk and enhancing and expanding our public transit system so that people don’t feel like they have to drive.

The Yellow Vest protests centered in France are an excellent case study. Working people in France were asked to pay more for gas to combat climate change, despite the fact that many people were already struggling to make ends meet. Instead of acquiescing, thousands of French people took to the streets to tell their elected leaders “no way.” They’re still in the streets, and the gas tax has been taken off the table.

We saw the Standing Rock Sioux resist the construction of the Dakota Access Pipeline. Not directly related to environmental concerns, but indicative of the right approach to achieving change, we’ve witnessed teachers across the US walk out and go on strike to demand fundamental reforms in their cities and states. The results of these actions have been mixed, but the strategy of organized, collective struggle is the right one.

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**Karolina Fuciková, Assumption College**

There are countless little things that everyone can do to reduce our negative impact on the environment. Most important is following the old reduce-reuse-recycle

mantra. It should go in that order — reducing (buying less, selecting less packaging) has a bigger impact than reusing (buying used, repurposing), and recycling being the last resort. The value of these small contributions accrues over one’s lifetime, especially if our example inspires others to do the same. But frankly, we often do these things to make ourselves feel better so that we don’t have to sacrifice exotic vacations, reduce meat in our diets (both have large carbon footprints), or have a less-than-perfect lawn (wastes drinking water, leaks pesticides and fertilizers). Use an example calculator to estimate your impact, such as [www.footprintcalculator.org](http://www.footprintcalculator.org).

It is near impossible to do everything right — the modern lifestyle depends on products and processes that harm the environment. Few of us are willing to make significant sacrifices, especially since “green” products and energy are often more expensive than their conventional counterparts, and thus are not accessible to all. Choose something that makes you happy and that you can keep up long-term. My personal favorite is sustainable landscaping — I have a garden and a wildflower patch that supports a diverse insect fauna. My lawn is a bit of a disaster because my chickens ruin it constantly, but to me it’s the most joyful sight in the world.

One affordable way to make a difference is supporting science, education, and environmental legislation — vote and call your representatives to let them know you care about environmental issues, support clean energy, etc.

*Karolina Fuciková, Ph.D., is an assistant professor of biology at Assumption College.*



**Craig Blais, Anna Maria College**

What does an English professor know about sustainability? Believe it or not, we don’t spend all our time silently correcting people’s grammar and droning on about Shakespeare at cocktail parties. As someone on a tight budget who lives in a 100-year-old house with a partner who works in the environmental housing division of a local municipality, practical conversations about climate change are an everyday occurrence. Below are six meaningful ways the average Massachusetts resident can reduce their impact on the environment:

Vote: The reason the Paris

Climate Accord is not legally enforceable is because it couldn’t get ratified by Congress. Every election is important — from local to federal — so make sure your voice is heard.

Consume less: Buying “green” is not as impactful as limiting consumption from the start.

Weatherize your home: Reduce your home’s carbon footprint by air sealing and insulating your home.

Be prepared: When your heating system goes, be prepared to switch from oil to air source heat pumps. When it’s time to trade in your vehicle, consider a plug-in hybrid instead of an oversized pickup.

Electrify everything: The more household items you can switch to electricity, the more items you will power with renewable energy over time, whether it’s because of the state renewable portfolio standard, community choice aggregation, or the rooftop solar panel system you’ll have one day.

Go easy on yourself: We are not in the throes of human-made climate change because of you; we got here due to locked-in systems that have been foisted upon consumers. Do what is within your means, and make sure the politicians whose job it is to protect the health and welfare of the public and the well-being of the environment do theirs.

*Craig Blais, Ph.D., is an assistant professor of English at Anna Maria College.*



**Anita Soracco, Quinsigamond Community College**

One of the most important things we can do for our planet is to radically reduce our CO<sub>2</sub> emissions, since they are a major contributor to global climate change. There are many lifestyle choices that can help accomplish this, however one change that is very easy to implement in everyday life is the use of reusable shopping bags. According to Waste Management, Americans use a staggering 100 billion plastic bags each year, which requires 12 million barrels of oil to manufacture. The recycle rate is only 1 percent; the rest end up in landfills where they will remain for over 500 years. It is also important to note that while recycling plastic bags is much better than landfilling; recycling is an energy intensive process; so the best thing we can do is to reduce. Paper bags also have a high

carbon footprint because of the vast deforestation to manufacture them. Approximately 14 million trees are cut down annually to meet our demands for paper bags. Trees act as a carbon sink, which means they temporarily store carbon from the atmosphere, which lessens climate change. The recycling rate for paper bags is also low at 3-5 percent.

When we choose reusable shopping bags, we help reduce the carbon footprint of manufacturing, transporting, recycling, and landfilling paper and plastic bags. As a rule of thumb, the more times a product is reused, the lesser the footprint. Any single use item is going to have a larger ecological footprint than a reusable one.

Globally, we can make a huge difference in how we impact the environment. Staying out of the waste stream by reducing and reusing will help decrease deforestation, litter, and plastic contamination. So the real answer to “paper or plastic” is: neither, I brought my own.

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**Christopher Picone, Fitchburg State University**

Studying climate change can leave us depressed and despairing.

Climate scientists are increasingly confident about our “carbon budget,” or how much more carbon dioxide we can add to the atmosphere before global warming exceeds 1.5-2 degrees Celsius. We have already warmed 1 degree Celsius, so we now must leave most fossil fuels in the ground.

Yet that necessary solution feels almost impossible. Five of the ten largest corporations on Earth are fossil fuel companies, and they impede any real progress on climate change. Another challenge is that we have been spoiled by the cheap, abundant energy in fossil fuels. While the science is clear that we need to reduce emissions dramatically, global emissions have been increasing by 1-3% every year. For decades!

So what can we do?

We must rapidly transform our energy infrastructure towards renewable sources, as the Green New Deal and the MA 100% Renewable Energy Act would do. Such ambitious change requires massive, informed social movements, as well as elected leaders who value scientific reasoning.

We must also change the way we produce and eat food, which accounts for 30 percent of greenhouse gas emissions. Those emissions are reduced by agroecological techniques such as diversified crops, perennial plants, integrated livestock, organic fertilizers, and reduced tillage. Eating less meat is also necessary.

Focusing on food develops solutions that beget more solutions. Agroecological farming builds soil organic matter which pulls carbon dioxide out of the atmosphere. Such farms are more resilient to droughts and extreme rainfall, which are more common as our climate changes. These farms also serve as refuges for biodiversity, require less pesticides, and improve nutrition for farming communities.

Just a few generations past, we defeated global threats of fascism by transforming our economy, trusting science, and fostering a sense of duty and self-sacrifice. If we did it once, we can do it again.

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