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# Thank You, Internal-Combustion Engine, for Cleaning up the Environment

BY DWIGHT R. LEE

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The internal-combustion engine is widely believed to have been an environmental disaster. It has been accused of harming our health by reducing air quality and contributing to what is currently claimed to be the most threatening of all environmental problems, global warming. But long before carbon dioxide was declared a major pollutant, a car was smashed with sledgehammers by students in Seattle during the first Earth Day on April 22, 1970. Al Gore called for eliminating the internal-combustion engine within 25 years in his 1992 book *Earth in the Balance* (only ten years left). Others, not worried about offending voters in Detroit, are less restrained in the criticism. Someone named Royce Carlson states in an Internet posting that because of “one hundred years of gasoline and diesel internal combustion engines . . . our air is polluted, . . . and we are destroying the environment.” A 2006 article in the *Vancouver Sun* reported that “more than half of British Columbia drivers believe that cars are destroying the environment.”

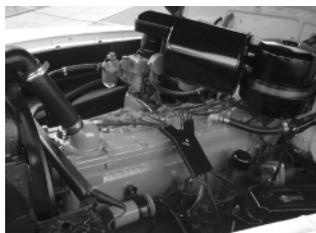
In fact, everyone concerned with a clean and healthy environment—and that includes far more people than those vocally claiming to be environmentalists—should be enthusiastic fans of the internal-combustion engine because of the important contributions it has made to environmental quality. The environmental benefits we realize from the engine have long been clear to anyone who bothered to notice. And these benefits have become more obvious because of an article in *The Independent*, a respected British newspaper (<http://tinyurl.com/ys5srd>). The article was based on a study by the United Nations Food and Agriculture Organization

(“Livestock’s Long Shadow—Environmental Issues and Options”), which found, quoting the newspaper, that “livestock are responsible for 18 percent of the greenhouse gases that cause global warming, more than cars, planes and all other forms of transport put together.” The problem begins in the digestive systems of livestock and ends up as flatulence.

The internal-combustion engine began improving the environment, however, long before global warming became a concern. Consider the fact that in 1900 a large percentage of the available horsepower really was horse power, or mule power, or ox power. As the power of the internal-combustion engine began to be substituted for animal power in the early 1900s, we began to substitute the emissions coming out of the tailpipes of cars and trucks for those coming out of the tailpipes of animals. The result was that the environment started becoming far cleaner and healthier.

Consider horse manure’s effect on the environment and health of New Yorkers in 1900. Robert Fogel, a Nobel Prize-winning economic historian, writes:

We complain a lot about air pollution today, but there were 200,000 horses in New York City, at the beginning of the 20th century defecating everywhere. And when you walked around in New York City, you were breathing pulverized horse manure—a much worse pollutant, than the exhausts of automobiles. Indeed in the United States, the automobile



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*Dwight Lee (dlee@terry.uga.edu) is the Ramsey Professor of Economics at Terry College, University of Georgia.*

was considered the solution to the horse problem because pulverized horse manure carried a lot of deadly pathogens.

No serious person denies that photochemical smog from gas-powered vehicles is a health risk. It would be silly to do so. It would be even sillier, however, to deny Fogel's observation that the air and water pollution from horse manure was a far greater health risk than the pollution from cars and trucks. Diseases such as cholera, typhoid, typhus, yellow fever, and diphtheria were responsible for the deaths of tens of thousands of Americans in the early twentieth century. As cars and trucks began replacing horses and other beasts of burden, these deaths began to decline dramatically. Medical improvements get some of the credit, but most of the credit during the early decades of the twentieth century goes to the reduced filth in the environment from animal waste.

The environmental benefits from the internal-combustion engine have not been confined to towns and cities. Before the power of internal combustion was harnessed, beasts of burden were adding greatly to the pollution generated by meat-producing animals, such as cows, pigs, and chickens in agricultural communities. By eliminating the need for horses, mules, and oxen on farms, tractors, trucks and other types of gas-powered farm machinery limited the problem of animal waste from agriculture almost entirely to feed lots that environmentalists, with justification, still complain about. It would be nice to hear them acknowledge that they would have even more to complain about without the internal-combustion engine.

Another environmental benefit that internal combustion seldom receives credit for is that it eliminated the need to grow food for millions of farm animals. It has been estimated that in 1910 about 25 percent of U.S. acreage devoted to growing crops was being used to grow food for the farm animals that were soon replaced by motorized farm equipment. Much of that land is now forestland, with the number of trees absorbing the greenhouse gas carbon dioxide much greater than it would have been without the internal combustion engine.

Based on the animal waste and the diseases that have been eliminated by the internal-combustion engine,

plus the additional forestland it has made possible, environmentalists should be celebrating motorized vehicles on Earth Day instead of destroying them with sledgehammers. And the reason for celebrating internal combustion is even stronger now that we have evidence that by eliminating all those barnyard animals, the engine has also eliminated vast amounts of methane from animal flatulence—a gas with far more greenhouse potency than the carbon dioxide produced by gasoline engines.

### No Credit Given

Yet with respect to the UN report, the mainline environmentalists are not giving the internal-combustion engine any credit for reducing greenhouse gases. Instead, they are pointing their fingers at meat eaters, with some recommending vegetarianism as the best way to combat global warming. From a report written for EarthSave International, we read, "Arguably the best way to reduce global warming in our lifetimes is to reduce or eliminate our consumption of animal products" (quoted in the February 20, 2007, *Christian Science Monitor*, <http://tinyurl.com/3997wc>). What is not mentioned is that if the vegetarian solution were taken seriously, it would increase the environmental benefits provided by the internal-combustion engine. Imagine the extra animal manure and methane that would be discharged if we had to grow all those additional vegetables without motorized farm equipment.

The internal-combustion engine is certainly not pollution free—as is always the case, there is no such thing as a free lunch. Before criticizing anything for being costly, however, one should always ask the question—compared to what? When this question is taken seriously, the environmental record of the internal-combustion engine is impressive by virtue of its being far less polluting than the animals it replaced. Furthermore, gasoline-powered engines are less polluting today than they were a few years ago, and they will be less polluting in a few years than they are today. And the less intrusive government is with yet more commands and controls in response to every problem, real or imagined, the sooner an even-less-polluting power technology will replace internal combustion. Until then, let's give the internal-combustion engine the respect it deserves for its contribution to a cleaner and healthier environment.

