Policy makers and environmentalists like to congratulate themselves on the “victory” over acid rain. As this American success story is usually told, acid rain’s effects were addressed by a 1990 update to the Clean Air Act that created a cap-and-trade system focused on sulfur dioxide emissions from coal-fired power plants. Since the system was implemented, sulfur dioxide emissions dropped 70 percent, and threatened forests and wildlife were saved. Hurrah!

There’s only one problem with that version of history: It’s not true. As [Scientific American reports](http://www.scientificamerican.com/article.cfm?id=acid-rain-caused-by-nitrogen-emissions), acid rain is a continuing and growing problem; forests and animals all over the world (including the U.S. East Coast) are indeed facing catastrophe. But the No. 1 source of today’s acid rain pollution is no longer sulfur dioxide, as it was 20  years ago. It’s nitrogen oxide emissions from factory farms.

Some of the following will be familiar to those diligent readers of Grist’s [Nitrogen series](http://grist.org/article/series/the-n2-dilemma-is-america-fertilizing-disaster):

Part of the problem dates back to WWI, when two German scientists invented the Haber–Bosch process, which took nonreactive nitrogen from the air (N2) and converted it into reactive, usable ammonia (NH3). Most of the nitrogen harvested via this process has been used in fertilizers, and the runoff from farms has created dead zones in Chesapeake Bay and at the mouths of the Columbia and Mississippi rivers. Some efforts have been made to regulate the agricultural nitrogen runoff, but atmospheric emissions of agricultural ammonia remain virtually unrestricted.

Agri-ammonia vapors also derive from concentrated animal feeding operations in the U.S. South. The gas rises into the air and is deposited dry or in rainfall where in the ground bacteria breaks it into nitrogen and nitric acid, which can kill fish and plants. “Agriculture is increasingly functioning as an intensively managed industrial operation, and that is creating serious water, soil, and air problems,” says Viney Aneja, a professor at North Carolina State University in Raleigh.

It’s an agricultural double-whammy: emissions produced as a consequence of fertilizer runoff AND livestock emissions both caused by our chemically intensive and highly industrialized food production system. And all the more difficult to control since agricultural sources are the largest, but by no means the only, contributor: power plants and automobiles also emit nitrogen oxides.

It’s perhaps even a triple threat since, as Scientific American explains, the nitric-acid rain that results from all these sources damages the soil on which it falls by leaching out important nutrients. Research has also found that nitrogen deposited through acid rain has the effect of promoting growth of some species while suppressing others, thus reducing biodiversity in the wild. Finally, the nitric acid ultimately “liberates” toxic minerals from the ground, which then in turn poison wildlife. In short, the real story of acid rain is an American tragedy.

As we documented in February, the dangers we face from the indiscriminate use of nitrogen fertilizer, along with our unwillingness to properly regulate livestock factory farmers, are both numerous and grave. While the Europe Union (again!) has enacted laws that have successfully reduced nitrogen emissions by a third since 1999, U.S nitrogen emissions have stayed flat, while ammonia emissions have increased by over 25 percent.

The only answer is to approach nitrogen pollution, in all its forms and from all its sources, as seriously and as intensively as we did sulfur dioxide pollution back in the 1990s. Indeed, perhaps acid rain will be the thing that brings nitrogen pollution to the front environmental policy burner. After all (and in strange [opposition to climate change](http://grist.org/article/extreme-warming-in-artic-will-cause-cold-snowy-winters-and-political-gridlo/)), it appears to have an outsized effect on the Eastern seaboard, i.e. in the back yard of our media and government.