



THE DDT BAN TURNS 30 — Millions Dead of Malaria Because of Ban, More Deaths Likely

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REPORT

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Today, the Senate is poised to enact an international treaty (the so-called POPs treaty) banning all use of DDT, despite the millions of people who have already died as a result of the U.S. EPA's ban on the chemical.

Thirty years ago, on June 14, 1972, the Environmental Protection Agency's first administrator, William Ruckelshaus, rebuffed the advice of his scientific advisors and announced a ban on virtually all domestic uses of the pesticide DDT. This was done despite the fact that DDT had earlier been hailed as a "miracle" chemical that repelled and killed mosquitoes that carry malaria, a disease that can be fatal to humans.

Ruckelshaus (who later worked with the Environmental Defense Fund, the very activist organization that had urged the ban) cited health concerns in defending his decision. He reported that DDT (dichlorodiphenyltrichlorethane) killed many beneficial insects, birds, and aquatic animals — not just malarial mosquitoes — and that it "presents a carcinogenic risk" to humans, based on laboratory studies showing increased cancer risk in mice fed extremely high doses. The scientific community was outspoken in opposing such a ban, noting that there was no evidence that DDT posed a hazard to human health. Yet the ban still took effect.

Now, thirty years later, it is vividly apparent that DDT was not hazardous to human health and that the banning of its domestic use led to its diminished production in the United States — and less availability of DDT for the developing world. The results were disastrous: at least 1-2 million people continue to die from malaria each year, 30-60 million or more lives needlessly lost since the ban took effect. This is especially tragic since there was hope of eradicating the disease altogether when DDT was first introduced and its potential was recognized.

Incredibly, despite the harsh lessons that should have been learned from the banning of DDT, governments around the world now stand poised to compound the error by enacting a global ban on DDT and related chemicals. Today, though DDT is banned in the U.S. and its use is discouraged by influential international aid agencies, some governments are at least able to use old stockpiles of the chemical or make a case for carefully controlled outdoor use of the chemical in emergency circumstances (though spraying homes would be more effective).

But even this minimal use of DDT could come to an end if the Senate Environmental and Public Works Committee, at the urging of Senators Joe Lieberman (D-CT) and Jim Jeffords (Ind.-VT), decides to eliminate the chemical altogether — along with other "persistent organic pollutants" (POPs) — by implementing an international POPs treaty, a treaty ostensibly aimed at chemicals that "pose a risk of causing adverse effects to human health and the environment." DDT is indeed persistent, but its mere presence is not indicative of adverse effects. DDT poses no known human health risk, but the treaty if passed will ensure ongoing widespread deaths from malaria.

THE PERIL OF MALARIA AND THE PROMISE OF DDT

There are some 300 to 500 million reported cases of malaria each year, 90% occurring in Africa. According to the World Health Organization (WHO), about two and a half million people die of the disease each year, again, mostly in Africa, the majority of them poor children. Indeed, malaria is the second leading cause of death in Africa (after AIDS) and the number one killer of children there (with about one child being lost to malaria every thirty seconds). Many medical historians believe malaria has killed more people than any other disease in history, including the Black Plague, and may have contributed to the collapse of the Roman Empire. Malaria was common in places as far north as Boston and England until the twentieth century. Two thirds of the world lived in malaria-ridden areas prior to the 1940s.

That devastation all but stopped during the time that DDT use was widespread, around 1950-1970. Indeed, the discovery

that DDT could kill malarial mosquitoes earned Dr. Paul M \ddot{u} ller the Nobel Prize in Medicine in 1948. DDT, a chemical pesticide synthesized by M \ddot{u} ller in the late 1930s, was initially used against houseflies, beetles, various farm pests, and typhus-carrying lice on the bodies of World War II soldiers and civilians. America and England soon became the major producers of the chemical, using it to fight malaria-carrying mosquitoes, especially in tropical regions.

In all, DDT has been conservatively credited with saving some 100 million lives.

FROM DISASTER TO HOPE...AND BACK AGAIN

Europe and North America have not harbored malarial mosquitoes since the 1940s. In one of the most miraculous public health developments in history, Greece saw malaria cases drop from 1-2 million cases a year to close to zero, also thanks to DDT. Meanwhile, in India, malaria deaths went from nearly a million in 1945 to only a few thousand in 1960. In what is now Sri Lanka, malaria cases went from 2,800,000 in 1948, before the introduction of DDT, down to 17 in 1964 — then, tragically, back up to 2,500,000 by 1969, five years after DDT use was discontinued there.

WHY WAS DDT BANNED?

The backlash against DDT came just two decades after its introduction. Claims that DDT was responsible for declines in populations of eagles and other birds of prey were popularized by Rachel Carson's polemic *Silent Spring* (1962). This hypothesis, like many others blaming DDT for adverse environmental effects, has not been borne out by subsequent studies, but it helped amplify a drumbeat of anti-chemical sentiment at a time when the modern environmental movement was beginning.

No DDT-related human fatalities or chronic illnesses have ever been recorded, even among the DDT-soaked workers in anti-malarial programs or among prisoners who were fed DDT as volunteer test subjects — let alone among the 600 million to 1 billion who lived in repeatedly-sprayed dwellings at the height of the substance's use. The only recorded cases of DDT poisoning were from massive accidental or suicidal ingestions, and even in these cases, it was probably the kerosene solvent rather than the DDT itself that caused illness. Reports of injury to birds could not be verified, even when one researcher force-fed DDT-laced worms to baby robins. Reports of fish kills have been greatly exaggerated, resulting from faulty data or aberrant, massive spills or overuse of the chemical that do not hint at a general danger in its use.

Even the December 31, 1972 EPA press release entitled "DDT Ban Takes Effect" noted that DDT had been a great boon to human health. Dr. Norman Moore, the British scientist who first claimed that DDT might be the cause of declining eagle populations (one of the chief non-human-health arguments for eliminating the chemical), conceded that the pesticide's huge benefits might easily outweigh its purported effects on animals: "[I]f I were living in a hut in Africa," mused Moore, "I would rather have a trace of DDT in my body than die of malaria." Moore's calculation seems wise.

Nonetheless, because groups such as the Environmental Defense Fund encouraged the EPA's ban, for three decades now, malaria has again been allowed to wreak havoc. In South Africa, for example, malaria cases increased by 1000% in the late 90s alone (but dropped 80% in 2000 alone in KwaZulu Natal, the one province that made extensive use of DDT). Some 300 million people a year are debilitated by malaria, at immense cost to both human health and the economies of poor nations.

We in the developed world now take malaria's absence for granted. In too much of the rest of the world, however, the malaria nightmare has returned. (North America has suffered in a subtler way from the elimination of DDT: the tree-devouring gypsy moth, virtually eliminated in the 1950s, made a comeback in the 1980s.) Public health activists such as Richard Tren (an economist and chairman of Africa Fighting Malaria), Roger Bate (of the Competitive Enterprise Institute), Amir Attaran (of Harvard's Center for International Development), and many others have worked to overturn the ban. In addition to combating malaria, DDT use helps fight yellow fever and dengue fever. Tren says, "The use of small amounts of DDT means the difference between life and death for thousands of people in the developing world every day."

WHO IS PREVENTING DDT USE?

Despite the cost in human lives, many groups stubbornly defend the ban. While the World Health Organization, the National Academy of Sciences, and UNICEF have recommended continued DDT use, influential organizations such as the Norwegian Development Agency, the Swedish International Development Agency, the Swedish Aid Agency, and USAID — the sorts of groups from whom some poor nations such as Belize, Mozambique, and Madagascar receive the majority of their public health money — continue to insist that DDT be left out of malaria-control efforts.

Countries have found themselves faced with malaria upsurges due to pressure from such international aid organizations to avoid DDT use, according to a report in the March 11, 2000 *British Medical Journal*. The use of DDT in Mozambique, noted the Journal, "was stopped several decades ago, because 80% of the country's health budget came from donor funds, and donors refused to allow the use of DDT."

The WHO estimates that malathion, the cheapest alternative to DDT, costs more than twice as much as DDT and must be sprayed twice as often, while another mosquito-fighting chemical, deltamethrin, is over three times as expensive, and the highly effective propoxur costs twenty-three times as much. For countries with minimal public health budgets, dependent on foreign aid, such substitutes are impractical. More importantly, there is no compelling public health reason to substitute these chemicals for DDT, which as stated is harmless to humans.

ENVIRONMENTALISM VS. HUMAN HEALTH

There is evidence that overuse of DDT in the 1950s and 60s caused environmental harm in specific, unusual cases — such as fish kills from massive over-spraying of river insects — but no study has ever confirmed any human health problems linked to DDT. Low-dose indoor use could save many lives — and is highly unlikely to cause any environmental damage.

Why, then, the eco-maniacal insistence on maintaining the ban, even in the face of massive human suffering caused by the elimination of DDT?

Around the time of the DDT ban, Dr. Charles Wurster, chief scientist for the Environmental Defense Fund, may have revealed how some environmentalists really feel about human beings when he was asked if people might die as a result of the DDT ban: "Probably...so what? People are the causes of all the problems; we have too many of them. We need to get rid of some of them, and this is as good a way as any." **[UPDATE:** Wurster later denied ever having made the statement, saying it was misreported by another EPA expert.]

Environmentalists —including the Sierra Club and National Audubon Society, who helped push the ban thirty years ago — have gotten better at public relations, but it isn't clear whether these groups have changed their priorities. As governments now debate broadening the DDT ban by enacting the POPs treaty, let's hope scientists who are more responsible prevail, scientists who side with humanity — not with mosquitoes and the deadly malaria parasite they carry.

This report is based on:

When Politics Kills: Malaria and the DDT Story by Richard Tren and Roger Bate, Competitive Enterprise Institute

Toxic Terror by Elizabeth Whelan, Prometheus Books

And the work of Thomas DeGregori (American Council on Science and Health) and Amir Attaran (Center for International Development, Harvard).

Related Links

[The Precautionary Principle, DDT, and GM-Food](#)

[Thirtieth Anniversary of Misguided Ban on DDT — Without This Pesticide, Millions Die of Malaria, Says Health Group; Senate To Extend Ban](#)

This information was found online at:

http://www.acsh.org/healthissues/newsid.442/healthissue_detail.asp