



The Green Wave: Environmentalism and Its Consequences
****An Excerpt****
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THE BAN ON DDT

Thousands of miles from Stockholm, another environmental decision was pondered in 1972, one whose tragic outcome would come to epitomize the "undercurrent of irrationality" referred to by Lord Taverne. In Washington, D.C. EPA Administrator William Ruckelshaus was in the midst of deciding whether his agency, not yet two years old, should ban the widely used pesticide DDT. The push to do something about DDT, dichloro-diphenyl-trichloroethane, had been underway ever since Rachel Carson, ten years earlier, identified the insecticide as one of the man-made chemicals posing a threat to human health and the environment. At the time Ruckelshaus was mulling his decision, DDT in the U.S. was being used primarily to protect cotton from boll weevils. Previously, DDT had been used for other agricultural purposes, and there were claims that the massive spraying of the chemical from crop dusters was having its effect on the environment, namely, the thinning of eggshells and the declining populations of various raptors, including bald eagles.¹ In the wake of the uproar over Carson's book, DDT was linked to breast cancer and other illnesses, although data substantiating such links were, and still are, completely lacking.²

In the spirit of Carson's book, DDT was coming to symbolize all the harm that modern technology was said to be doing to the earth and its inhabitants. The Environmental Defense Fund (EDF), for example, was created in 1967 for the exclusive purpose of getting DDT banned, and the group spent the next several years in a relentless pursuit of that goal.³ (EDF is now known as Environmental Defense.) Conspicuously absent from most of the harangues over the supposed ill-effects of DDT, however, was any acknowledgement of the role the chemical played in performing an extraordinary service—saving lives, millions of them.

"In the early 1940s, when the world's population was half of what it is today," writes Indur Goklany, "it was estimated that malaria, a mosquito-borne disease suspected to have plagued humanity since prehistoric times, afflicted at least 300 million people worldwide, causing 300 million deaths annually, including 1 million in India alone." With the help of DDT, he notes, the global malaria death rate—which had been 1,740 deaths per million in 1930—dropped over 70 percent to 480 per million in 1950. In recognition of DDT's remarkable contribution to combating this ancient dreaded disease, Paul Mueller, the Swiss chemist who discovered the substance's insecticidal properties, was awarded the Nobel Prize for Physiology and Medicine in 1948. (Such was the esteem the medical community had for DDT's ability to kill disease-carrying insects that it was used against scourges other than malaria. Viewers of "The History Channel" may have seen its segment on the last days of World War II in which the liberation of the concentration camp at Dachau, Germany, is shown in full color. The segment

contains moving footage of emaciated newly-freed prisoners undergoing de-lousing by U.S. Army medics. The prisoners' heads are being sprayed heavily with a substance the announcer identifies as—DDT.)

By 1970, two years before EPA's ban, the death rate from malaria had dropped another two-thirds to 160 per million. Malaria had all but disappeared in the developed world and was close to being eradicated in the rest of the world, except for impoverished Sub-Saharan Africa.

DDT's success in controlling malaria, Goklany points out, was due to malariaologists' recognition of the insecticide's unique mechanisms—it repels, irritates and poisons mosquitoes.⁴ Far from being dumped on fields from an airplane, DDT, in combating malaria, was sprayed in huts where its presence posed no threat to humans but was deadly to mosquitoes. In 1970 the National Academy of Sciences stated: "To only a few chemicals does man owe as great a debt as to DDT. In little more than two decades DDT has prevented 500 million human deaths due to malaria that would have otherwise have been inevitable."⁵

"Nowhere in *Silent Spring* did Carson acknowledge that the chemical she was excoriating as a menace had, in the previous two decades, been used by malariaologists to save somewhere in the vicinity of ten million lives," commented Malcolm Gladwell. "Nor did she make it clear how judiciously the public health community was using the chemical."⁶

What was not made clear by Carson, was made perfectly clear by Judge Edmund Sweeney, who chaired an EPA panel convened by the agency to decide whether to ban DDT. Judge Sweeney's panel held hearings over a seven-month period and took over 9,300 pages of testimony. The final, 113-page report was issued on April 25, 1972. In it Sweeney wrote: "DDT is not a carcinogenic, mutagenic, or teratogenic hazard to man. The uses under regulations involved here do not have a deleterious effect on fresh water fish, estuarine organisms, wild birds or other wildlife...and...there is a present need for essential uses of DDT."⁷

That was not, however, how Administrator Ruckelshaus saw it. On June 2, 1972, Ruckelshaus, who had attended none of EPA's hearings on the chemical, overturned Judge Sweeney's decision and, to the delight of environmentalists, banned the use of DDT in the U.S., except for certain emergencies. Thirty-two years later, long after the unintended, but completely predictable, consequences of his decision had made their presence felt, Ruckelshaus offered this explanation to Tina Rosenberg of the *New York Times Magazine*:

But if I were a decision maker in Sri Lanka, where the benefits from use outweigh the risks, I would decide differently. It's not up to us to balance risks and benefits for other people. There's arrogance in the idea that everybody's going to do what we do. We're not making these decisions for the rest of the world, are we?⁸

Sri Lanka would seem an odd example for Ruckelshaus to cite. In the years before *Silent Spring* cast its long, deadly shadow, the island nation off the southeast coast of India had been a

poster child for DDT's success in combating malaria. In Sri Lanka there were only 31 cases of malaria in 1962 and 17 in 1963, but more than a million cases in 1968 after the use of DDT there was banned.⁹ The resurgence of malaria in Sri Lanka was an unmistakable sign of what would happen if the global campaign against DDT led to the product's being banned elsewhere. Ruckelshaus was now an integral part of that campaign. As administrator of the U.S. Environmental Protection Agency, he legitimized the activist-led campaign against DDT by putting Washington's considerable prestige behind his decision on the chemical. To imply, as he did in his interview with Rosenberg, that the U.S. doesn't "make these decisions for the rest of the world," is to ignore the global influence the United States has on matters relating to public health and the environment. Malaria may not have posed a threat to the U.S., in part thanks to prior use of DDT there, but, as the example of Sri Lanka showed, the scourge could wreak havoc elsewhere in the world if given a chance. Ruckelshaus, Carson, EDF, the World Wildlife Fund for Nature (WWF), and others demanding an end to DDT's use gave malaria that chance.

According to a study sponsored by the Institute of Medicine, the National Research Council, and the National Academy of Sciences:

The declining availability and use of DDT was not without its cost in human health, but those who promoted the ban were not those who suffered the consequences...The removal of this cheap and effective antimalaria weapon from the U.S. marketplace had a negative impact on malaria control efforts worldwide.¹⁰

Separately, Tina Rosenberg and Paul Driessen have put human faces on what those scientific bodies refer to as "a negative impact of malaria control worldwide." Rosenberg notes:

Independent malariologists believe it [malaria] kills two million people a year, mainly children under 5 and 90 percent of them in Africa. Until it was overtaken by AIDS in 1999, it was Africa's leading killer. One in 20 African children dies of malaria, and many of those who survive are brain-damaged. Each year, 300 to 500 million people worldwide get malaria. During the rainy season in some parts of Africa, entire villages of people lie in bed, shivering with fever, too weak to stand or eat. Many spend a good part of the year incapacitated, which cripples African economies. A commission of the World Health Organization found that malaria alone shrinks the economy in countries where it is most endemic by 20 percent over 15 years.¹¹

Driessen, senior policy advisor for the Congress for Racial Equality, adds:

In 2000, say the World Health Organization and other studies, malaria infected over 300 million people. It killed nearly 2,000,000—most of them in Sub-Saharan Africa. Over half of the victims are children, who die at the rate of two per minute or 3,000 per day—the equivalent of 60 fully loaded school buses plunging over a cliff every day of the year. Since 1972, over 50 million people have died from this dreaded disease. Many are weakened by AIDS or dysentery, but actually die of malaria.

In addition to these needless deaths, malaria also saps economies and health care resources. It keeps millions home from work and school every day. Chronic anemia can sap people's strength for years and leave victims with severe liver and kidney damage, while cerebral malaria can cause

lifelong learning and memory problems.¹²

Ruckelshaus once explained his ruling on DDT by observing that "in such decisions the ultimate judgment remains political."¹³ His explanation may have been more honest than he intended. That his decision was not based on the existing scientific evidence, which was abundant even then, is obvious. Rather, it was a reaction to public pressure generated by environmental activists to "do the right thing." As such, it was the first major public health decision in the era of modern environmentalism that can truly be described as "eco-centric"—that is, it elevated environmental concerns—as defined by activists in and out of government—above all other considerations.

Even though the consequences of the eco-centric campaign against DDT have been well documented by the World Health Organization, the National Academy of Sciences, the Institute of Medicine, and the National Research Council, as well as by such writers as Tina Rosenberg, Indur Goklany, Malcolm Gladwell, Paul Driessen, and the late Aaron Wildavsky,¹⁴ the one American agency in a position to do something about it refused to do so. The United States Agency for International Development (USAID) appeared more interested in saving face than in saving lives. "For us to be buying and using in another country something we don't allow in our own country raises the specter of preferential treatment," E. Anne Peterson, assistant administrator for global health at USAID, told the *New York Times Magazine's* Rosenberg. "We certainly have to think about 'What would the American people think and want?' and 'What would Africans think if we're going to do to them what we wouldn't do to our own people?'"

One African who has given considerable thought to such matters is James Shikwati of the Inter Region Economic Network, a think tank based in Nairobi, Kenya. "For rich countries to tell poor nations to...ban chemicals that help control disease-carrying insects—and then to claim to be responsible, humanitarian and compassionate—is to engage in hypocrisy of the most lethal kind," he points out.¹⁵

The campaign against DDT in the 1960s, and USAID's refusal to support its use in malaria-stricken areas today, wouldn't be so harmful if there were effective malaria-fighting alternatives to DDT. There are alternatives to DDT, but none is as effective in controlling malaria as the chemical so roundly excoriated by environmental activists. Two alternatives, malathion and deltamethrin, have not shown themselves to be as effective at repelling mosquitoes, and both cost more than DDT. Cost is a crucial factor in developing countries where the average household spends more than 50 percent of its income on the most basic of necessities—food. What this means on a national level can be seen in Belize's use of deltamethrin to fight malaria. Deltamethrin, which costs three to four times more than DDT, consumed 89 percent of Belize's malaria-control budget by the early 2000s. This, Goklany notes, "starves funds from surveillance, elimination of mosquito breeding grounds, and even malaria treatment."¹⁶

Another alternative to DDT, widely used because it costs only pennies a day, is chloroquine. As resistant strains of malaria have evolved, however, chloroquine now fails 80

percent of the time. Bed nets treated with an insecticide have become a fashionable way of protecting people from mosquitoes, and they can be quite effective. But, as Rosenberg points out, they have serious drawbacks. They are expensive, and the insecticide wears off after a while, requiring constant re-treatment.

The fact that the "alternatives" to DDT don't measure up either in terms of cost or effectiveness in fighting malaria, or both, has not moved officials in international agencies to reconsider their position on the chemical—despite the rising death toll. Indeed, USAID is not the only offender. The 1980 and 1990s saw the rise of environmental sections within health organizations and international donor agencies. The World Bank, for example, flatly rejected a recommendation from the Pan American Health Organization in 1999 that Ecuador use DDT to combat malaria in the wake of a severe El Nino. Walter Vergara, who headed the World Bank's environmental section at the time, defended his decision to Tine Rosenberg with the following explanation: "DDT has an awful impact on the biosystem and is being eliminated by the world community. There are alternatives. We're not the only species on the planet."

Vergara is correct in saying that human beings are not the only species on the planet, but his remarks ignore the consequences of the World Bank's stance for humans living in poor countries—the very nations the World Bank is supposed to assist. "The U.S. and other rich countries are siding with the mosquitoes against the world's poor by opposing the use of DDT," Nicholas Kristof, a *New York Times* columnist, commented in January 2005. Kristof added that "most Western aid agencies will not pay for anti-malarial programs that use DDT, and that pretty much ensures that DDT won't be used." In an odd turn of events, two influential environmental NGOs, Greenpeace and the World Wildlife Fund, have—belatedly—changed their tune on the use of DDT. "If there's nothing else and it saves lives, we're all for it," said Rick Hind of Greenpeace. "Nobody's dogmatic about it."¹⁷

"All I can say is: It's about time," Paul Driessen comments. "Better late than never. But why did so many people have to die over the past three decades, because of the near global de facto DDT ban, which these groups promoted so incessantly?" Steve Milloy, adjunct scholar at the Cato Institute, was even more blunt. "It might be easy for some to dismiss the past 43 years of eco-hysteria over DDT with a simple 'never mind,' except for the blood of millions of people dripping from the hands of the WWF, Greenpeace, Rachel Carson, Environmental Defense Fund, and other junk science-fueled opponents of DDT."¹⁸

Notes

¹ Indur M. Goklany, *The Precautionary Principle: A Critical Appraisal of Environmental Risk Assessment* (Washington, D.C.: Cato Institute, 2001), p. 23; Dick Taverne, *The Rise of Unreason: Science, Democracy and the New Fundamentalism* (Oxford: Oxford University Press, 2005), p.29.

² G. Gordon Edwards, "DDT: A Case Study in Scientific Fraud," *Journal of American Physicians and Surgeons* (vol. 9, no. 3, Fall 2004), p. 86; Tina Rosenberg, "What the World Needs Now is DDT," *New York Times Magazine*, April 11, 2004, p. 11; Malcolm Gladwell, "The Mosquito Killer," *The New Yorker*, July 2, 2001, p. 42.

³ Ron Arnold and Alan Gottlieb, *Trashing the Economy: How Runaway Environmentalism is Wrecking America* (Bellevue, Washington: Merrill Press, 1993), p. 290.

⁴ Goklany, p. 15.

⁵ Quoted in Edwards, p. 83.

⁶ Gladwell, p. 44.

⁷ Quoted in Edwards, p. 86.

⁸ Rosenberg, p. 12.

⁹ Taverne, p. 185.

¹⁰ Quoted in Thomas R. DeGregori, *Bountiful Harvest: Technology, Food Safety, and the Environment* (Washington, D.C.: Cato Institute, 2002), p. 135.

¹¹ Rosenberg, p. 13.

¹² Paul Driessen, *Eco-Imperialism: Green Power, Black Death* (Bellevue, Washington: Free Enterprise Press, 2003), p. 66.

¹³ Quoted in Edwards, p. 86.

¹⁴ Aaron Wildavsky, *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues* (Cambridge: Harvard University Press, 1993), pp. 55-80.

¹⁵ Quoted in Driessen, p. 73.

¹⁶ Goklany, p. 16.

¹⁷ Quoted in James Hoare, "Greenpeace, WWF Repudiate Anti-DDT Agenda." *Environment & Climate News* (vol. 8, no. 3: April 2005), p. 19.

¹⁸ Hoare, p. 19.