

Who's Stopping DDT From Saving Lives?

by Marjorie Mazel Hecht

As malaria continues to kill one child every 30 seconds in sub-Saharan Africa, and 500 people per day in Uganda alone, officials in the European Union have threatened to ban agricultural imports from Uganda if the country begins to spray the indoor walls of houses with DDT to combat the mosquito-borne disease. Indoor spraying with DDT is by far the most effective preventive against malaria. Ironically, some of these EU officials might not be alive today, if their parents and grandparents, soldiers and civilians, had not been dusted with DDT to kill the lice that spread deadly typhus, during and after World War II. The pre-World War II generation was not so fortunate. Without the benefit of DDT, typhus killed 3 million people, and sickened 20-30 million more just after the World War I.

Malaria is Africa's biggest killer. Ninety percent of the world's 1-2 million malaria deaths per year are in Africa, and most of those are women and young children. Another 500 million people suffer a malaria attack every year, enduring suffering and debilitation. Yet, the major funders of anti-malaria campaigns, such as the World Bank, spend nothing for DDT or pesticide spraying. (See accompanying op ed by Ugandan activist Fiona Kobusingye-Boynes.)

Until this year, the same was true of the U.S. Agency

for International Development's anti-malaria program, the World Health Organization anti-malaria program, and that of various other United Nations organizations. But after Congressional hearings in 2004 and 2005, and persistent lobbying from Africa Fighting Malaria, the Congress of Racial Equality, malaria scientists, and others, in December 2005, the USAID reversed a 34-year U.S. policy of not funding any program involving DDT use or pesticide spraying in Africa.

USAID spokesmen also insisted, in response to criticism, that the agency never had any official ban against DDT use. This is not true. After the 1972 U.S. ban on DDT, USAID policy was not to fund any development projects using a pesticide that was banned in the United States.

In 1986, Secretary of State George Shultz reinforced this policy in a telegram to all embassies stating: "The U.S. cannot, repeat cannot, participate in programs using any of the following: (1) lindane, (2) BHC, (3) DDT, or (4) dieldrin." As entomologist and DDT champion J. Gordon Edwards noted in his article "DDT: A Case Study in Scientific Fraud," published in the *Journal of American Physicians and Surgeons* (Fall 2004), "Millions of poor natives in tropical countries died as a result, from starvation or from malaria and other insect-transmitted diseases. The term 'genocide' is used in other contexts to describe such numbers of casualties."

Entomologist Donald Roberts, Professor of Tropical Public Health at the Uniformed Services University of the Health Sciences, in his testimony to the Senate Committee on Foreign Relations in October 2004, reported that when Vietnam ran out of DDT for its spraying program, the USAID, international organizations, and foreign donors refused to fund the purchase of DDT.

The truth here is not just USAID's non-funding for DDT: Of the \$80 million in the USAID budget for malaria control in 2004, 80 percent went to "consultants" and 5 percent to purchase of bed nets.¹ Nothing was spent for pesticide purchase, or malaria medications! The World Bank record is similarly abysmal, as an article in the British medical journal *The Lancet* documents. Millions of dollars, and none that purchases pesticides²

Another critical factor in the return of malaria is the policy of the World Health Organizations and other agencies to insist on decentralizing the aid, and eliminating national public health infrastructure programs, such as that in Vietnam. Roberts reports that this destructive action followed a World Health Assembly resolution in 1985, which called on countries "to decentralize their malaria control programs by moving malaria control into primary health care systems."

1. Roger Bate and Benjamin Schwab report on USAID funding in "The Blind Hydra: USAID Fails to Control Malaria," published by the American Enterprise Institute, April 22, 2005.

2. Amir Attaran et al., "The World Bank: False Financial and Statistical Accounts and Medical Malpractice in Malaria Treatment," *The Lancet*, April 25, 2006

Today, a handful of African countries is receiving USAID funds to purchase pesticides for spraying programs, including Ethiopia, Mozambique, and Zambia, with Kenya, Uganda, and Tanzania scheduled for funding, although anti-DDT protest remains, spurred on by non-governmental organizations, and the EU threat of an import ban.

Indoor Residual Spraying Works!

The effectiveness of indoor residual spraying with DDT—or other more expensive and often less effective pesticides—in reducing the incidence of malaria is unassailable. A tiny amount of DDT sprayed on inside house walls and under the eaves, in a carefully controlled program, stops the lethal cycle of malaria. The effectiveness of DDT continues for 8 months to a year, whereas other pesticides have to be applied every two weeks or so. There is no DDT sprayed outside, although in such small amounts, it would have virtually no effect on the environment.

In his 2004 testimony to the Senate Foreign Relations Committee, Dr. Roberts stated his surprise that there could be any debate about spraying versus bed nets. “There is no scientific basis for stopping or preventing indoor spraying of insecticides. On the contrary, replacing spraying with nets defies a *fundamental lesson* of preventive medicine.” He goes on to explain that a “fundamental truth” of preventive medicine is that “the least desirable preventive measure for reducing environmental risk is reliance on personal protective measures.” The most desirable method for reducing environmental risk, Roberts said, is “to engineer risk out of the human environment.”

Roberts concluded his testimony with a direct attack on the environmental ideology that “strives for an environment free of man-made chemicals,” which has “created a colossal public health and humanitarian disaster.” In particular, he said, he and others in the malaria control community “object to the use of public funds to pressure developing countries to comply with policies and strategies that increase the risk of disease and death. . . . The world has already paid an enormous price in lost life, lost economic vitality, and lost human welfare as a result of those practices. It is time to stop this flagrant use of public funds to force compliance with a scientifically fraudulent and immoral ideology.”

The mosquito vectors that carry malaria (in South Africa it is *Anopheles funestus*) rest on the inside house walls and bite human beings at night. Even if the DDT doesn’t kill them, researchers have found that the mosquitoes are repelled by the DDT and leave the house. This latter effect is known as “excito-repellency,” and has been shown to be a dominant way that DDT controls malaria-bearing mosquitoes, in addition to killing them on contact.³

The anti-DDT activists propagandize that mosquitoes will



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DDT house spraying in Burma (now Myanmar) in the 1960s, when the policy was to use DDT and develop infrastructure to eliminate the malaria scourge. The abandonment of these policies after 1972 is responsible for the malaria deaths of 50 million people worldwide.

become resistant, but researchers have found that this is not so; the DDT continues to repel the mosquitoes. A case in point, which has done much to influence other African nations, is South Africa, where the incidence of malaria and deaths soared after it stopped using DDT in 1996. Under pressure from environmentalists, South Africa had substituted a synthetic pyrethroid insecticide for DDT. But the mosquitoes became resistant to this pesticide, and between 1996 and 2000, the number of malaria cases in South Africa increased by more than 450 percent, with an increased mortality rate of nearly 1,000 percent.

South Africa resumed the use of DDT in 2003, and within one year, the incidence of malaria in the worst-hit province, KwaZulu Natal, fell by 80 percent. In two years, the number of malaria cases and deaths dropped by 93 percent. What African government, knowing these statistics, would continue to watch the death rates of its people climb?

In Uganda, the malaria death rate climbed 15 percent in the last five years, and is now above 500 per day. In Kenya, malaria kills about 34,000 children every year. Yet business interests in both places are worried that the European Union, the chief importer of food products, flowers, and organic produce, will boycott their exports. And the chorus of misguided environmentalists continues to perpetuate the myth that DDT is harmful to human beings and wildlife.

Ugandan President Yoweri Museveni, to his credit, has strongly supported a DDT program. “Why should we look on

3. See, for example, the article by D. Roberts et al., in *Emerging Infectious Diseases*, July-September 1997, p. 300.

and watch our people die, when it is within our means to make a difference?" Museveni said on Africa Malaria Day, April 25, 2006. Other political figures have also spoken out.

Countries using DDT include Madagascar, Ethiopia, Eritrea, Sudan, South Africa, Namibia, Solomon Island, Papua New Guinea, Algeria, Thailand, Myanmar, India, and Ecuador.

The Malaria Cycle

There are three types of malaria, all caused by a genus of protozoans called *Plasmodium*, the most lethal being *Plasmodium falciparum*.⁴ In brief, the *plasmodium* is picked up by a biting female *Anopheles* mosquito, when she sucks the blood of a person with malaria. The plasmodia in the blood mate in the mosquito's stomach and produce hundreds or thousands of young plasmodia, which travel through the mosquito's body, including to the salivary glands. When the mosquito bites again, it injects young plasmodia (called sporozoites) into the human victim.

These plasmodia reach the human liver where they reproduce, forming a new phase of plasmodia (merozoites), which enter the blood stream, burrow into red blood cells, reproduce, and in 48 hours, burst out to enter new blood cells, repeating the process in 48 hours.

When the number of merozoites reaches about 150 million in a 140-pound person, the victim has a typical malaria attack every 48 hours. As Dr. Gordon Edwards describes it, "When millions of red blood cells are simultaneously destroyed, the victim suffers a chill. As the cells are ruptured, toxins are released, resulting in alternating chills and fevers. If a large number of plasmodia invade the brain, death quickly follows."

The malaria cycle is most effectively stopped, when the *Anopheles* mosquito is prevented from biting people who already have malaria in their blood. This vastly reduces the incidence of new cases of malaria.

DDT is not a magic bullet in eradicating malaria, but *no anti-malaria program can succeed without it*. The sad case of "Roll Back Malaria," the program initiated by the WHO, World Bank, and various United Nations groups in 1998 makes this point. The malaria death count has increased steadily during the years of Roll Back Malaria. The main reason for this disaster is that Roll Back Malaria focussed on bed nets impregnated with a non-DDT pesticide to protect children at night—a nice idea, although costly. Despite millions of dollars spent, only a tiny percentage of Africans now use bed nets. Roll Back Malaria, in its zeal to please the environmental lobby that prefers protection of wildlife and "Mother Nature" to people, is organized to fail.

What will it take to eradicate malaria in Africa? Central-



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Malaria is a horrible, debilitating disease that kills more than 1 million people a year, most of them women and young children. Every 30 seconds, one child in Africa dies from malaria.

ized, DDT house-spraying programs are a first step—just as they were in the 1950s and 1960s, when malaria began to be put under control. But to fully conquer malaria, and other mosquito-borne diseases, Africa needs public health infrastructure: public health centers, hospitals, nurses, doctors, and technicians who can carry out a comprehensive public health program, treating malaria and other disease victims with the most effective medications. A successful program also requires draining the swampy areas near population centers, adequate housing with window screens, good diet, and education—all items that a World Bank and other organizations could be funding.

Combatting Malthusianism

DDT was banned in the United States in 1972 solely for political reasons: Bringing malaria under control was allowing populations to thrive in Africa and other tropical countries.⁵ Alexander King, founder of the Malthusian Club of Rome, wrote in a biographical essay in 1990, "My chief quarrel with DDT in hindsight is that it has greatly added to the population problem." Others of that view were no less subtle. Secretary of State Henry Kissinger in 1974, in the infamous National Security Study Memorandum 200, bluntly explained that the United States needed the raw materials of the African continent, particularly precious metals, and therefore had to combat population growth there, because a greater population would lead to more nationalism

4. J. Gordon Edwards provides these and more details about malaria in "Malaria: The Killer That Could Have Been Conquered," in *21st Century Science & Technology*, Summer 1993, pp. 21-35.

5. Documentation of the political nature of the ban on DDT can be found in articles by legendary DDT fighters Gordon Edwards and Tom Jukes in *21st Century Science & Technology*. Some of these are available on line at www.21stcenturysciencetech.com.

and hence to less U.S. control over resources.⁶

In this context, the DDT ban was seen as essential to maintain oligarchical control over raw materials. The DDT ban also became central to the buildup of the environmentalist movement. In the early 1970s, science and technology in the Western world were being deliberately infected with an anti-science philosophy to wean the American population away from its enthusiasm for progress, the Apollo Program, and eliminating poverty. The rock/drugs/sex counterculture recruited the youth out of scientific and cultural optimism, into anti-Vietnam war protest, and then into the green arms of “Mother Nature.” When leading scientists proclaim in a third-of-a-page ad in the *New York Times* that all living things—plants, animals, and mankind—should have “genuine equality,” it is easy to see how environmentalists could be made to believe anything—including that DDT is dangerous.⁷

To turn this around, requires more than funding of indoor residual spraying with DDT—although that is a life-saving start. The World Bank under neo-conservative Paul Wolfowitz, USAID under the Bush/Cheney Administration, and the American Enterprise Institute under the philosophy of Friedrich von Hayek are emphatically opposed to the kind of changes required: We need a fundamental change in the oligarchic control of the world financial system, so that sovereign nations can protect the general welfare of their populations and pursue development policies, including infrastructure building. Only then will Africa—and the people in the rest of the world—be able to eliminate diseases like malaria and bring a now dying population up to the highest level of living standards.

6. The NSSM 200 document is discussed at length in *EIR*, Dec. 8, 1995. An online summary can be found at http://www.schillerinstitute.org/food_for_peace/kiss_nssm_jb_1995.htm.

7. Among the signers of the “Morelia Declaration,” published in the *New York Times* on Oct. 10, 1991, were F. Sherwood Rowland, a professor at the University of California and inventor of the “ozone hole” scare (for which he won a Nobel Prize), and 1993 president of the American Association for the Advancement of Science. The last paragraph of declaration reads: If the latter half of the 20th century has been marked by human liberation movements, the final decade of the second millenium will be characterized by liberation movements among species, so that one day we can attain genuine equality among all living things.”

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