Sustainable Mosquitoes – Expendable People

Fiona “Fifi” Kobusingye is a 34-year-old designer and businesswoman from Kampala, Uganda. In early November 2002, she saw her doctor because she felt fatigued – and discovered she had malaria. Her year-old niece shivered and cried all night, and suffers from impending kidney failure, because of malaria. Her sister was critically ill and hospitalized with malaria, and her mother came to Kampala to help tend everyone – but ended up in the hospital herself with malaria.

“Our family and community are suffering and dying from this disease, and too many Europeans and environmentalists only talk about protecting the environment,” Kobusingye says. “But what about the people? The mosquitoes are everywhere. You think you’re safe, and you’re not. Europeans and Americans can afford to deceive themselves about malaria and pesticides. But we can’t.”

Compared to many others, though, her family is lucky – so far. It can afford medical treatment, and everyone is feeling better, for now at least. But other families aren’t so fortunate.
Eco-Imperialism

In 2000, say 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 80 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.²

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.

The disease drains the Indian economy of as much as $737 million every year, in lost wages due to deaths and absence from work, reduced productivity due to fatigue, and money spent on insecticides, medicines and malaria research, New Delhi’s Liberty Institute has calculated.³

Africa’s gross national product would be $400 billion a year – instead of its current $300 billion annually – if malaria had been wiped out in 1965, when it was eliminated in most of the developed world. Malaria control costs Africa $12 billion annually, depleting budgets for other health, environmental, economic and social programs. It particularly afflicts poor families, who must use up to 25 percent or more of their income on prevention and treatment.⁴

Uganda alone spends nearly $350 million a year on malaria, and devotes up to 40 percent of its outpatient care to malaria patients. In 2002, 80,000 Ugandans died of the disease, and again half of them were children.⁵ “Most families can’t even afford to get proper treatment. Where do you get the money to go back to the hospital again and again,” asks Kobusingye, “when your family needs food and so many other things?”

These are real deaths and real impacts – not just theoretical deaths, based on extrapolations from rodent studies (as in the case of Alar, the growth-regulating chemical that was the subject of a vitriolic attack and fund-raising campaign by the Natural Resources Defense Council and Fenton Communications in 1989⁶), or hypothetical catastrophes (like flood and drought scenarios generated by certain climate change computer models).

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They are due in large part to near-global restrictions on the production, export and use of DDT. Originally imposed in the United States by EPA Administrator William Ruckelshaus in 1972, the DDT prohibitions have been expanded and enforced by NGO pressure, coercive treaties, and threats of economic sanctions by foundations, nations and international aid agencies.

Where DDT is used, malaria deaths plummet. Where it is not used, they skyrocket. For example, in South Africa, the most developed nation on the continent, the incidence of malaria had been kept very low (below 10,000 cases annually) by the careful use of DDT. But in 1996 environmentalist pressure convinced program directors to cease using DDT. One of the worst epidemics in the country’s history ensued, with almost 62,000 cases in 2000.

Shortly after this peak, South Africa reintroduced DDT. In one year, malaria cases plummeted by 80 percent; in two years they were almost back to the 10,000 cases per annum level. Next door, in Mozambique, which doesn’t use DDT, malaria rates remain stratospheric. Similar experiences have been recorded in Zambia, other African countries, Sri Lanka, Bangladesh and elsewhere.⁸

DDT likewise helped to eradicate malaria from vast areas of South America, though not in Central America, and to control the disease in additional areas via indoor spraying. Control continued as long as the centralized spray programs were maintained. However, as environmental groups and the World Health Organization succeeded in eliminating both outdoor and indoor use of DDT, the number of malaria cases spiraled upward. Manaus, Brazil, and many other areas are now enduring the return of endemic malaria to pre-DDT levels.

“The re-emergence of this devastating disease,” says Donald Roberts, Professor of Tropical Public Health at the Uniformed Services University of Health Sciences, “is clear and unambiguous testimony to the falsehoods of environmentalists and the failed policies of the WHO.”

No other chemical comes close to DDT as an affordable, effective way to repel mosquitoes from homes, exterminate any that land on walls, and disorient any that are not killed or repelled, largely eliminating their urge to bite in homes that are treated once or twice a year with tiny amounts of this miracle insecticide. For
impoverished countries, many of which are struggling to rebuild economies wracked by decades of disease and civil war, cost and effectiveness are critical considerations.

Substitute pesticides are rarely appropriate. While carbonates work well, they are four to six times more expensive than DDT and must be sprayed much more often. Organophosphates are dangerous and thus not appropriate in homes. And mosquitoes have built up a huge resistance to synthetic pyrethroids, because they are used so extensively in agriculture.

For poor African, Asian and Latin American countries, cost alone can be determinative. Not only do they need their limited funds for other public health priorities, like safe drinking water, but they have minimal health and medical infrastructures. Every dollar spent trying to control malaria is a dollar that’s unavailable for other public health needs. “DDT is long-acting; the alternatives are not,” says Professor Roberts. “DDT is cheap; the alternatives are not. End of story.”

DDT is not a panacea, nor a “super weapon” that can replace all others. Nor is it suitable in all situations. However, it is a vital weapon – often the “best available technology” – in a war that must be fought against a number of mosquito species (vectors) and constantly changing malaria parasites, in different terrains and cultures, and under a wide variety of housing and other conditions. Like any army, healthcare workers need to have access to every available weapon. To saddle them with one-size-fits-all solutions (tanks and pistols, bed nets and drug therapies) is unconscionable.

The chemical is no longer used in agriculture (which accounted for 99 percent of its use at the time Rachel Carson wrote *Silent Spring*). Today it is used almost entirely, and very selectively, in malaria control, via spraying in tiny quantities on the insides of the traditional huts and houses that are common in areas of Africa most threatened by the disease.

It is not carcinogenic or harmful to humans; used in accord with these modern practices, it is safe for the environment; and malaria-carrying mosquitoes are far less likely to build immunities to DDT than to other pesticides that environmentalists and US, EU and UN agencies tolerate only as a last resort. Rare cases of immunity in decades past have since been linked to gross overuse in agriculture during the 1950s and 1960s. What was once thought to be DDT toxicity to wildlife now appears to have been due to its being mixed with dangerous chemicals like fuel oil or petroleum distillates. “In the 60 years since DDT was first introduced,” notes South African Richard Tren, president of Africa Fighting Malaria, “not a single scientific paper has been able to replicate even one case of actual human harm from its use.”

During World War II, DDT was actually classified as a secret weapon, because of its unparalleled ability to prevent malaria and typhus among Allied troops. After the war, virtually every concentration camp survivor and many other Europeans were also doused multiple times with DDT to prevent typhus, with no ill effects reported. The widespread use of DDT in Europe and the United States played vital roles in eradicating malaria and typhus on both continents.

In 1979, a World Health Organization review of DDT use failed to find “any possible adverse effects of DDT” and deemed it to be the “safest pesticide used for residual spraying in vector control programs.” Estimates by reputable scientists and scientific organizations have gone as high as five hundred million lives saved by the use of DDT.

Nevertheless, the United Nations Environmental Programme (UNEP), World Bank, Greenpeace, Pesticide Action Network, World Wildlife Fund, Physicians for Social Responsibility and other groups remain adamantly opposed to the use of DDT. Their stance outrages many who must live with the consequences of malaria every day. However, these organizations ignore the victims’ growing anger and the rising body count. Instead, they continue to advocate steps that, while helpful, simply cannot be the sole solution to this widespread and complex disease.

- Insecticide-treated mosquito bed nets do help at night, if used properly and regularly. But they are not foolproof, and are hardly appropriate during the day, at work, in school or at play.
- Drug therapies are extremely expensive for poor families and poor countries. They also depend on public health facilities that are lacking in most malarial regions, and on committed patients and parents treating themselves and their children on a regular basis. Moreover, the parasite that causes malaria has become increasingly resistant to chloroquine, the cheapest and most common medical treatment.
- Fish that eat mosquito larvae offer a haphazard approach, at best.
Eco-Imperialism

But the government and donor agencies and environmental activists still do not support the use of pesticides, and certainly not DDT. Indeed, they are trying to phase out all pesticides.

A principal argument against DDT is that its use is not "sustainable." This claim has frequently been made by Gro Harlem Brundtland, who was instrumental in promoting the sustainable development concept when she was Norway’s prime minister — and headed the World Health Organization between 1998 and 2003. However, without DDT, the lives of millions in developing countries are certainly not sustainable.

"My friend’s four-year-old child hasn’t been able to walk for months, because of malaria," Fifi Kobusingye says softly, her voice breaking. "She crawls around on the floor. Her eyes bulge out like a chameleon, her hair is dried up, and her stomach is all swollen because the parasites have taken over her liver. Her family doesn’t have the money to help her, and neither does the Ugandan government. All they can do is take care of her the best they can, and wait for her to die."

Professor Roberts has heard many stories like this, and seen similar tragedies unfold right before his eyes. He is outraged at the "high pressure tactics" that have forced many countries to abandon public-health uses of DDT — and watch their disease and death tolls soar. He is not alone.

"If we don’t use DDT, the results will be measured in loss of life," David Nabarro, director of Roll Back Malaria, says bluntly. "The cost of the alternatives tend to run six times that of DDT." That fact, however, appears to be irrelevant to many activist groups and aid agencies.

Activists like Ed Begley, Jr. and the Pesticide Action Network like to say there is no global ban on DDT. But they are playing semantic games. Increasing restrictions on the production, storage, transportation and use of DDT and other pesticides, lengthy delays in getting approvals to use them, mounds of costly red tape, and the refusal of donor agencies and foundations to fund indoor residual spraying programs all add up to one thing: sickness and death for millions of Africans every year. From the activists’ perspective, says Richard Tren, that’s just "bad luck for the people who have to die, so that über bureaucrats in Geneva can dot their i’s and cross their t’s."

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"The US Agency for International Development will not fund any indoor residual spraying and neither will most of the other donors," Tren notes. "This means that most African countries have to use whatever [these donors] are willing to fund (bed nets), which may not be the most appropriate tool." Belize and Bolivia have both admitted that they stopped using DDT in the face of USAID pressure, and many other developing countries refrain from using DDT because they "don’t want to damage their chances of exporting agricultural produce to the North." Mozambique beats around the bush, in giving absurd reasons why it won’t use DDT, even as tens of thousands of its citizens are dying.

USAID director Andrew Natsios’ pointed comments about GM corn and starvation thus stand in sharp contrast to the agency’s position on the use of DDT to combat malaria. The agency refuses to fund DDT programs, because the insecticide is not permitted in the United States, where malaria and West Nile virus problems pale in comparison to mosquito-borne diseases in developing countries. Its current stance also contrasts sharply with its previous support for DDT and other chemicals between 1950 and 1972, when it contributed $1.2 billion to the Global Malaria Eradication Campaign. German, Swedish, Norwegian and other aid agencies take a similar position.

All these donor agencies, suggests Tren, "need to decide whether they are in Africa to save lives, or to be politically correct and please the Greens at home."

What is permitted today in risk-averse countries that have already conquered malaria should simply be irrelevant for nations that are suffering massive epidemics today. As Tren and Roger Bate ask, would Sweden really refuse to fund hospital nurses in Africa if they worked under conditions that do not fulfill Swedish health and safety requirements? Would donor agencies refuse to fund immunization programs, because some people have allergic reactions to vaccines?

India’s Department of Trade and Industry worries that the country’s agricultural produce will be turned away from Europe if any traces of DDT are found, Tren notes. And in a truly bizarre example of misplaced priorities and concerns, Zimbabwe’s department of health was told to stop using DDT because growers were worried that their carcinogenic tobacco would get rejected by the EU if any DDT were found on it.
Domestic US laws also prevent the import of produce with residues of pesticides and other chemicals that have been banned in the United States. This has forced growers to spray more often with non-persistent pesticides that are more expensive and more toxic to workers, resulting in more cases of pesticide poisonings, especially in poor countries where hand spraying is the norm. Whether it will also result in bans on the import of fish and agricultural products from South Africa, Uganda and other countries that dare to use DDT is an open question.19

Ugandan Health Minister Jim Muhwezi summed the matter up succinctly, when he announced in late 2002 that his country would begin using DDT to control mosquitoes. Uganda did so despite warnings by environmentalists and the European Union that it risks having a boycott launched against its coffee and having its fish and agricultural exports banned in EU and other foreign markets, if it goes forward with its plan. Kenya is also considering the use of DDT to combat its growing epidemic; that would make it only the eighth African nation to do so.

In Muhwezi’s view, the cost of treating malaria and the burden it has placed on the country outweighed any environmental repercussions. He cited the successful use of DDT in Mauritius and South Africa to slash malaria disease and death rates and said, “Our people’s lives are of primary importance. The West is concerned about the environment because we share it with them. But it is not concerned about malaria because it is not a problem there. In Europe, they used DDT to kill anopheles mosquitoes that cause malaria. Why can’t we use DDT to kill the enemy in our camp?”20

The United States and Europe successfully used DDT to eradicate malaria. For them to downplay the lethal effects of this disease on developing nations – while obsessing about theoretical health problems from trace chemicals in food and drinking water – strikes Tren, Muhwezi and others as hypocritical, paternalistic and callous. It is hardly ethical or socially responsible.

New insecticides, chemicals and drugs are clearly needed. However their development and use are hampered by insufficient funding (in Africa), excessive reliance on the precautionary principle (particularly in Europe), and drug approval delays and the ever-present threat of multi-billion-dollar liability judgments (especially in the United States). Even if they might someday be a reliable substitute for DDT, tens of millions are likely to die in the meantime.

Simply put, the suggestion that alternatives to DDT exist now or will in the near future is little more than wishful thinking in its deadliest form – promoted by people who have staked out an ideological position against DDT anywhere, anytime and under any circumstances, and cling to their position like limpets to a rock.

Even the New York Times (which usually sides with radical environmental groups) now says the developed world “has been unconscionably stingy in financing the fight against malaria or research into alternatives to DDT. Until one is found, wealthy nations should be helping poor countries with all available means – including DDT.”21

And still anti-pesticide activists like Greenpeace and the World Wildlife Fund are unmoved.

Many Africans, Asians and Latin Americans are understandably outraged. They view the intense pressure on countries not to use DDT as a lethal form of eco-imperialism, imposed by nations that eradicated malaria, dengue fever and typhus decades ago – against nations that continue to be devastated by these deadly diseases. The restrictions on pesticides are also a grotesque abuse of the precautionary principle, akin to telling terminally ill cancer patients they may not use morphine to ease their pain, because you are concerned about the use of addictive drugs by well-to-do high school students.

The United States death toll from West Nile virus (260 people between 2001 and 2002) is a mere 0.007 percent of Africa’s annual death toll from malaria. And yet, Americans are again using pesticide spraying programs to control mosquitoes that spread the virus. They would never tolerate being told they had to protect their children solely by using bed nets, larvae-eating fish and medicinal treatments. But they have been silent about conditions in Africa, and about the intolerable attitudes of environmental groups, aid agencies and their own government.

“Corporate social responsibility ought not to be used to impose policies that kill people,” says Kenya’s James Shikwati. “It should not be used to render poor populations sick, unproductive and perpetually destitute. For rich countries to tell poor nations to ... ban chemicals that help control disease-carrying insects – and then claim to be responsible, humanitarian and compassionate – is to engage in hypocrisy of the most lethal kind.”22
Eco-Imperialism

Niger Innis, national spokesman for the Congress of Racial Equality, is equally blunt. "There is no more basic human right," he emphasizes, "than to live - to not be murdered by design, indifference or callous disregard. And yet, [civil rights leaders] and Amnesty International are missing in action. So are the CEOs of BP, Shell Oil, Ford Motors and other members of the World Business Council for Sustainable Development.

"Surely, sustaining, improving and saving lives is the most fundamental form of corporate social responsibility. Why have they not challenged the radicals who set the Council's agenda and promote these lethal policies? Aren't they just a little uncomfortable being complacent accessories to what many Africans view as eco-manslaughter?" 23

The anti-pesticide activists and donor groups know full well the consequences of their actions - just as a driver knows full well what is likely to happen if he takes his car at full throttle the wrong way down a busy street. But still the radicals persist in their deadly "game" with people's lives.

And yet, for their intense opposition to DDT use - and despite their blatant lack of concern for people - companies, politicos, NGOs, Hollywood celebrities, foundations and government bureaucrats are frequently hailed as "socially responsible," concerned about the poor, moral and "passionate about the environment."

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Chapter Five Footnotes


6. The chemical Alar was used to regulate the growth and ripening of apples, until it became the subject of an attack launched by Fenton Communications, the NRDC and CBS's "60 Minutes." In a later interview, David Fenton admitted that "the PR campaign was designed so that revenue would flow back to NRDC from the public." See Bonner Cohen, John Carlisle, et al., The Fear Profiteers: Do "socially responsible" businesses sow health scares to reap monetary rewards? Arlington, VA: Lexington Institute (2000).

7. In so doing, Ruckelshaus ignored thousands of pages of scientific evidence attesting to the pesticide's safety and expert recommendations that its use be continued for malaria control.


9. Alexander Gourevitch, "Should the DDT ban be lifted?" and Donald Roberts, personal communication to Paul Driessen, April 29, 2003..


15. Richard Tren and Roger Bate, When Politics Kills: Malaria and the DDT story, Sandton, South Africa: Africa Fighting Malaria (2000), page 24. All other countries combined contributed only $2.8 million, via the World Health Organization, they note.


