Hope in the Midst of the Growing Malaria Pandemic

The Growing Scourge of Malaria

We don't know much about malaria in the United States anymore. The disease was once prevalent in the Southern States as far north as Washington D.C. George Washington suffered from malaria as did Abraham Lincoln. A million casualties in the Civil War are attributed to malaria. But malaria was eradicated in the U.S. and much of Europe by 1950 with the use of pesticides, eliminating the sole transmitting agent of the malarial parasite, Anopheles mosquitoes.{1}

Malaria not only continues elsewhere but is a growing threat in the tropics around the world and especially in Sub-Saharan Africa. Half the world's population is at risk for malaria with some estimates as high as 500 million cases every year and over 2 million deaths. Most of those deaths are in Sub-Saharan Africa, and over half of them are of children under five years of age. In some parts of Zambia there are over thirteen hundred cases of malaria for every thousand children under five. That means some children are infected more than once per year.

The economic effects are just as severe. Malaria drains the Indian economy of nearly $800 million each year due to lost wages from death, absences, fatigue and money spent on insecticides, medicines, and research. Uganda spends over $350 million annually on malaria control, and forty percent of their health care dollars are spent on treating malaria. Still eighty thousand die every year.

The disease begins with a painless bite of the female Anopheles mosquito that needs blood to feed her eggs every

three days. To prevent coagulation of her victim's blood she injects a little saliva which also may contain only a couple dozen one-celled organisms of the genus *Plasmodium*, the human malarial parasite. These make their way to liver cells where they multiply by the tens of thousands. After several days these liver cells rupture, releasing the parasite into the blood stream. The new parasites infect red blood cells and multiply again by the tens of thousands. Still the victim is unaware anything is wrong.

Once the parasites have consumed the red blood cells from the inside out, they rupture the cells and tens of millions of parasites are loose inside the blood. The first immune response begins, and muscle and joint aches are the first sign something is wrong. But the parasites infect new red blood cells within thirty seconds of release and hide from the body's defenses for two more days. When the next wave of parasites release, the immune system can be overwhelmed. Fever, cold sweats, and chills ensue and the fight is on. At this stage if an uninfected mosquito bites the sufferer, she will ingest a new form of the parasite and the cycle begins anew.

We need to get this scourge under control.

New Hope with DDT

As noted previously, malaria was prevalent in the U.S. until the late 1940s. We rid ourselves of this scourge through the use of the "miracle" pesticide DDT (dichloro-diphenyl-trichloroethane). Malaria was eliminated in Europe and North America by eliminating the species of mosquito that carried the disease-causing parasite.

DDT was used during WWII essentially as a secret weapon against malaria in the Pacific war. Not only were American bases sprayed with DDT to rid them of malaria carrying

mosquitoes, but freed prisoners of war were dusted with DDT powder to rid them of insect parasites. DDT was used to great effect and was deemed entirely safe to humans.

After WWII, Europe and America began applying DDT to their malarial and agricultural problems in mammoth proportions. Malaria was eliminated in Europe and the U.S. in a few years. Greece reportedly eradicated malaria within one year. Sri Lanka used DDT from 1946 to 1964 and malaria cases were reduced from over three million to twenty-nine.{2}

Recent studies have shown repeatedly that DDT causes no harmful effects to human health, and when used as currently prescribed there is little possibility of harm to the environment.{3} In South Africa, Sri Lanka, Mozambique and other nations, DDT has been extremely effective in reducing the rates of malaria, as much as an eighty percent reduction in one year.{4}

DDT is not sprayed out in the natural environment but on the walls of homes and huts. This use repels Anopheles mosquitoes, agitates those that do enter the home so they don't bite, and kills only those that actually land on the wall. Since most mosquitoes are not killed, just repelled, little opportunity exists for resistance to DDT to build up. Even mosquitoes that are known to be resistant to DDT are still repelled by it.

South African Richard Tren, president of Africa Fighting Malaria, says that "In the 60 years since DDT was first introduced, not a single scientific paper has been able to replicate even one case of actual human harm from its use."{5}

The World Health Organization in 1979 deemed DDT the safest pesticide available for mosquito control, and estimates from reputable scientists indicate DDT has been responsible for saving up to 500 hundred million lives.{6}

DDT is effective, cheap, long lasting, and safe. By itself, DDT is not a magic bullet, but it's pretty close. Certainly

more aggressive use of bed nets and newer drug treatments for those already infected still need to be used, but without DDT, these are only putting band aids on inches-deep open wounds. But some third world countries still do not know about DDT or are afraid to use it.

The Objections of the Environmentalists

For some, the reemergence of the pesticide DDT in the escalating fight against malaria raises concerns as it did for me since we are aware of the troubles allegedly caused by DDT for birds, particularly hawks and eagles in the ‘60s and ‘70s.

When the U.S. eradicated malaria, DDT was almost too effective and too cheap. Agricultural use was stepped up, and since DDT is a long-lasting chemical, it built up in the environment and in the food chain. Fish particularly began harboring large amounts of DDT in their tissues and Bald Eagles, which feed on fish, began a build-up of the chemical in their tissues as well. Eventually, Rachel Carson’s 1962 book, *Silent Spring*, blamed the declining numbers of Bald Eagles on the use of DDT. By 1972, the U.S. Environmental Protection Agency had banned the use of DDT in the U.S. despite mountains of evidence that this ban was unwarranted.

Bald Eagle numbers were plummeting before the use of DDT, and were recovering before the chemical was banned.{7} Specific tests done with numerous birds found no correlation between thinning egg shells and DDT. But the damage was done. The U.S. and European nations banned DDT and expected other countries to do the same. Both governments and non-governmental organizations (NGOs) began rejecting goods from other countries that used DDT.

When Sri Lanka and South Africa stopped use of DDT, malaria rates soared.

The indoor residual spraying method offers no risk to humans

or to the environment, yet environmental groups still resist its use. “If we don’t use DDT, the results will be measured in loss of life,” says David Nabarro, director of Roll Back Malaria. “The cost of the alternatives tend to run six times that of DDT.”{8}

But this truth seems to be lost on many activists and aid agencies. The human toll of malaria worldwide is far more important than imagined environmental risks and discredited scare campaigns. International aid agencies need to free up important aid dollars to secure DDT for countries whose people can’t afford the latest malaria medicines and whose government’s health budgets are stretched to the breaking point simply taking care of already sick patients.

Obviously there is something more going on than just unrealistic objections to a particular chemical. DDT is environmentally safe, without risk to human health, extremely effective and incredibly cheap.{9} The environmentalist worldview comes clearly into focus, even though their policies mean death and disease throughout over one hundred countries where malaria is endemic.

“Sustainable Development” Keeps Billions in Poverty, Disease and Malnutrition

DDT was unfairly criticized and banned in 1972 in the U.S. and eventually around the world despite clear evidence to the contrary. Places where malaria had been nearly eradicated, such as Sri Lanka, saw an immediate surge in malaria after its use was discontinued. But even now as the scientific credibility of DDT has been restored, many continue to fight its use.

Environmentalists and officials at the World Health Organization seek to reverse recent decisions to rehabilitate DDT and begin its effective use in malaria stricken countries.

But why? If DDT is so effective, safe, and inexpensive, why would some continue to fight its use? The answer is bigger than just misinformation or stubborn adherence to worn out doctrines.

In his book *Eco-Imperialism: Green Power, Black Death*, Paul Driessen exposes an intricate web of conspiracy to keep third world countries energy deficient, disease plagued, chronically poor, and malnourished, all in the name of "sustainable development." The bottom line is that sustainable development means that, if there is any supposed or imagined risk to the environment, then economic development must be curtailed to insure that whatever development occurs is sustainable by the environment with no risk at all.

Therefore, drugs like DDT for malaria control, fossil fuel-burning power plants, and even dams providing irrigation, safe drinking water, and cheap electrical power are resisted by powerful and well-funded environmentalist groups.

The Narmada dam project was killed in India by environmentalist groups concerned by a particular fish species that might be threatened. They persuaded international lending agencies to withdraw their support. Local residents were incensed. The project would have provided low cost electricity, sewage treatment plants, irrigation and clean water for 35 million people. People displaced were to be given new homes and farmland. But when a tiger and wildlife preserve was formed, displaced peoples were given no place to go and threatened with extreme measures if they returned.{10}

But why would seemingly well intentioned people appear to be so harsh and cruel to people simply wanting a better life? At the heart of this problem is a foundational worldview issue.

The Difference a Worldview Makes

It's alarming to see how frequently environmental groups will deliberately distort the truth and outright lie to achieve their ends. They have been caught many times, but are never held accountable.

In 1995, Shell Oil was announcing plans to sink one of its offshore oil rigs in the Atlantic with a permit from the UK Environment Ministry. Greenpeace, an international environmentalist group, launched a $2 million public relations campaign that accused Shell of planning to dump oil, toxic wastes, and radioactive material into the ocean. Shell eventually backed off and spent a fortune to dismantle the platform onshore.

A year later, Greenpeace actually published a written apology, effectively admitting the entire campaign had been a fraud. There were no oil or toxic wastes, and the admission was buried with small headlines in the business page or obituaries.{11}

The Alar apple scare of 1989 has been exposed as a gross misuse of science that ended up bringing in millions of dollars to the National Resource Defense Council that orchestrated the campaign. Never mind that grocers, apple growers, and UniRoyal lost millions of dollars as well as the use of Alar, an important cost-saving and harmless chemical.{12}

But why such fraud and misinformation in the name of a safe environment? My analysis indicates a clear difference in worldview. Many of the leaders in the environmental movement are operating under the banner of a naturalistic worldview. In that context, nature as a whole takes precedence over people. Anything that they perceive as even potentially causing harm should be avoided. Nature must be preserved as it is.

Invariably, the one species asked to make sacrifices is always human beings. This is clearly reflected in third world countries struggling to overcome the crippling effects of poverty and disease. Rather than develop cheap electricity through fossil fuel power plants, millions are forced to burn dung and local wood products, causing large increases in toxic fumes and other indoor pollutants.

Nearly a billion people worldwide suffer from increased incidence of asthma, pneumonia, tuberculosis, lung cancer, and other respiratory diseases linked to indoor pollution caused by burning raw biomass fuels to heat their homes and cook their food.{13}

As Christians, we recognize that people are made in the image and likeness of God. While we are always responsible for carrying out our responsibility to rule and have dominion over God's creation, a larger, primary concern is to look after human needs and relieve human suffering. Let's start allowing people the right to make their own decisions concerning electricity and malaria with our advice and not unreasonable pressure.

Notes

1. Michael Finkel, "Malaria: stopping a global killer," *National Geographic*, July 2007, 46.
2. Richard Tren and Roger Bate, *Malaria and the DDT Story* (London, UK: Institute of Economic Affairs, 2001), 35-37.
3. Tren and Bate, 45-47.
4. Paul Driessen, *Eco-Imperialism: Green Power, Black Death* (Bellevue, Washington: Free Enterprise Press, 67.
5. Richard Tren, quoted by Driesen, *Eco-Imperialism*, 69.
6. Driessen, *Eco-Imperialism*, 69.
7. J. Gordon Edwards and Steven Milloy, 100 things you should know about DDT, www.junkscience.com/ddtfaq.html (accessed on Jan 10, 2008).
8. David Nabarro, quoted by Driessen, *Eco-Imperialism*, 70.

9 . Interactive presentation on DDT and malaria, Africa Fighting Malaria, www.fightingmalaria.org/ddt-interactive.aspx, accessed on March 3, 2008.
10. Driessen, *Eco-Imperialism*, 39-40.
11. Ibid., 25.
12. Michael Fumento, The anatomy of a public scare, www.fumento.com/ibdalar.html. Accessed on March 3, 2008. Also see Michael Fumento, *Science Under Siege* (New York: William Morrow and Co., 1993), 19-42.
13. Driessen, *Eco-Imperialism,* 38-39.

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