**Persuasive**

Over half a million people in Africa - mostly children, die of Malaria a year, with a child dying of the fatal disease every minute. Malaria is mostly contracted from mosquito bites, and an estimated 207 million cases of Malaria are recorded per year. However, the road to prevention has been deemed relatively successful partly due to the pesticide DDT, and the occasional use of mosquito nets. Despite the positive outcome of this chemical, much controversy has been encountered due to DDT’s proven negative effects on both humans and the environment. Because of this, the USA has banned the use of DDT. This ban, coupled with the negative effects, prove that the use of DDT should NOT be used in the country of Africa despite its seemingly “positive” outcome.

The topics stated above are two obvious reasons as to why DDT should be banned in Africa and countries that are affected by insect-borne diseases. DDT’s popularity in WWII was met with positive feedback that led to overexposure to DDT in the “baby boomer” generation; despite the scarce amount of info on the chemical. Because of this, DDT and its byproducts were often dumped into the sewage system by plants that produce the pesticide, and an estimated 2 million tons were produced during the period of WWII along with an unaccounted (and possibly ludicrous) amount of waste. The pesticide and its waste byproduct DDE have been linked to diseases such as Parkinson’s and Alzheimer’s; which inflicts more than 5 million people in the US and is the sixth leading cause of death in the country. Animals are also affected, which was evidenced when the population of bald eagles in the Channel Islands began to dissipate after DDT biomagnification from affected marine ecosystems weakened eagle eggs. Some may argue, however, that DDT is a vital element in keeping DDT and its carriers at bay. DDT is a very effective chemical, no doubt, but its after-effects could ravage the African ecosystem long after Malaria has been defeated. Ecosystem collapse from even more biomagnification could lead to even more problems; such as lack of food and overpopulation, so these effects of DDT explain why we shouldn’t be using DDT as a pesticide in other countries.

Another reason to ban DDT is the availability of alternatives that may achieve similar results. Although DDT is known to be a very cost-effective way of malaria prevention, there are other alternatives. Preventatives such as mosquito nets, less-harmful pesticides, and manual mosquito control are three prime examples of more eco-friendly (and less dangerous) ways for dealing with the mosquito population. Mosquito nets, on average, cost $3-$5 each, and could protect 2 people in a period of about 4 years. According to netsforlifeafrica.org, if 3/4ths of a community uses a mosquito net, malaria transmission would drop 50% and the mosquito population would drop 90%. If Africa’s 1.1 billion people were to be given mosquito nets, an estimated $1.6-$2.8 billion dollars would be needed, which excludes the amount of people that already have a net. The drawback, according to some, would be the price. Despite the net’s relatively cheap price, the majority of Africans cannot afford a net for protection. The answer to this is medical aid and a boost towards developing schools and better paying jobs that could lead to an overhaul in the economic system. Government aid from the US has contributed to many saved lives in Africa, and more aid from other countries could provide the population with more nets and medical care. Additionally, a shift towards better education has been proven to increase economic value, as proven by international business studies. If these financial issues are resolved, DDT will have no use as the cheap, harmful pesticide that the rest of the world has forbidden.

The last reason to ban DDT is the problem of mutations developing in mosquitoes that enable them to ignore the pesticide. According to a study conducted by the Liverpool School of Tropical Medicine and other various research institutions, mosquitoes in Africa have developed a genetic trait that grants them immunity to DDT. Although only a relatively small number of mosquitoes possess this mutation, the process of natural selection will inevitably increase the population of these resistant mosquitoes until DDT will eventually be considered ineffective and obsolete. In order to combat this newfound trait, alternatives such as manual extermination and mosquito nets must be put into use. If this defensive ability is overlooked, malaria will continue to thrive in the resistant mosquitoes. However, the other side of the argument would suggest that the timeframe in which this trait is spread would be too long to consider action as of now. If we do not take action on this slowly (but surely) spreading genetic trait, then millions of dollars will be wasted on a harmful pesticide that doesn’t function, and the people of Africa will continue to perish from the malaria-carrying mosquitoes that weren’t affected by the pesticide. Action should be taken before this problem becomes irreversible.

The harm that DDT causes to both humans and our ecosystem makes it one of the least viable options in mosquito control. Along with the obvious alternatives and the decreasing effectiveness of the pesticide, DDT’s use definitely does more harm than good. Despite these negativities, the use of DDT has been attributed to the dramatic decrease of the mosquito population, and the pesticide has been widely celebrated as one of the best innovations in human history. The elimination of the majority of the mosquito population may have helped Africa in the short run, but among all these benefits, one question surfaces: what will DDT’s effects be in the long run?