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## The Lingering Killer: Agent Orange

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# The Lingerin Killer: Agent Orange

## **Abstract**

This paper explores the utilization of the chemical herbicide, Agent Orange, as it was sprayed over Vietnam during the Vietnam War in 1961 to 1971. The United States government, military, and corporations acted irresponsibly by creating the chemical and spraying it as a war tactic. The outcome of the spraying includes detrimental socioeconomic impacts, environmental degradation, and health problems. The socioeconomic impact is explained with statistics and an explanation of loss of job and education capabilities. With data on the destroyed trees and vegetation, this paper demonstrates the degree to which the environment faced harm. The health effects of Agent Orange are detailed by listing the diseases associated with the chemical. The struggle for justice, reparations, and policies remedying the harmful effects of Agent Orange are explored. Conclusions are made about the failing human rights record of the United States.

## **Keywords**

Vietnam War, human rights, environmental harm

The Lingering Killer: Agent Orange  
*Sharon Ungerfeld*

**Abstract**

This paper explores the utilization of the chemical herbicide Agent Orange as it was sprayed over Vietnam during the Vietnam War from 1961 to 1971. The United States government, its military, and its corporations acted irresponsibly by creating the chemical and spraying it as a war tactic. The outcome of the spraying included detrimental socioeconomic impacts, environmental degradation, and health problems. The socioeconomic impact is explained with statistics and an explanation of job loss and education capabilities. With data on the destroyed trees and vegetation, this paper demonstrates the degree to which the environment was harmed. The health effects of Agent Orange are detailed by listing the diseases associated with the chemical. The struggle for justice, reparations, and policies remedying the harmful effects of Agent Orange are explored, and conclusions are made about the failing human rights record of the United States.

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### **Introduction**

Deformed fetuses, cancer, and human mutations exemplify the outcome of a United States military war tactic used during the Vietnam War between 1961 and 1971 (Palmer, 2005). During the Vietnam War, 58,000 Americans died in battle, 300,000 were wounded, and three million Vietnamese people lost their lives or continue to face the effects of the Agent Orange herbicide (Pike, 2011). In a United States military effort to maintain control over Southern Vietnam during the Vietnam War, the military sprayed 72 million liters of herbicides, mainly consisting of Agent Orange, over Vietnam (Palmer, 2005). These actions, which destroyed plants in an effort to reveal Vietnamese enemies, and prevent the Vietnamese from eating, created an environment where the United States controlled the Vietnamese population (Reagan, 2011). Provided by United States corporations Dow Chemical Corporation and Monsanto, Agent Orange had detrimental effects on Vietnamese civilian populations, war veterans, and the environment (Pilger, 2012). The 4.8 million children killed by the toxic chemicals illustrate only a small amount of the negative effects. The impact of Agent Orange is transferred to each upcoming generation (Pilger, 2012). Spraying a harmful chemical over a country with ample civilian populations constitutes a war crime because the individuals affected receive no justice, and groups responsible for the wartime atrocities take no responsibility (Palmer, 2005). The objective of this paper is to display the irresponsible actions of United States corporations and military personnel in Vietnam by showing the socioeconomic, environmental, and health effects of Agent Orange on both the Vietnamese civilian and United States military populations, and illustrating the currently

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ineffective policies in place to remedy the long-lasting effects on the affected populations.

### **The Use of Agent Orange Explained**

Agent Orange is a chemical-based dioxin by-product used for destroying plants and crops (Palmer, 2005). Dioxin is a known pollutant (Booker, 2001). Instructed by the United States military, companies created six chemical herbicides, all with a different color name (Scott, 1988). Originally, United States chemical companies manufactured the herbicides for chemical warfare, but the United States military still declared Agent Orange as safe. The United States Air Force carried out the mission to spray millions of liters of the chemical herbicide over Vietnam, naming it Operation Hades. The overall mission, later known as Operation Ranch Hand, mainly utilized Agent Orange, a combination of dichlorophenoxy-acetate, trichlorophenoxy-acetate, and n-butyls. Ninety percent of the use of Agent Orange was for depriving the Vietnamese of foliage for protection, eight percent was directed to killing crops, and two percent was aimed at removing plants from military bases (Scott, 1988). In 1969, the White House Science Advisory Committee stated that Agent Orange posed detrimental risks for humans. Consequently, in 1970, the Departments of Health, Education, Welfare, the Interior, and Agriculture, declared that the herbicide not be used in most areas (Young & Cecil, 2011). The United States irresponsibly used Agent Orange as a war strategy during the Vietnam War because Agent Orange not only harmed plants, but also harmed humans as well. Even after the harmful effects surfaced in 1970, the United States neglected to study the harmful effects of Agent Orange and failed to recognize their

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atrocious actions for the human rights of the Vietnamese civilians and the United States veterans.

### **Socioeconomic Effects of Agent Orange**

The spraying of Agent Orange over civilian populations in Vietnam created severe socioeconomic impacts. Some of these effects include diminished income and resources devoted to health care (Palmer, 2005). To examine the socioeconomic effects on civilians in Vietnam, Palmer conducted a survey in 2001 of 30 individuals affected by Agent Orange and 30 individuals who experienced no effect. Individuals plagued with disease resulted in a decrease in productivity. To pay for medical costs due to the influx of diseases after the spraying of Agent Orange, victims allocated their resources by selling cattle, borrowing money from family, and consuming less food (Palmer, 2005). The lack of resources and the lack of crop productivity contributed to an economic decline and a health decline for the affected Vietnamese populations.

Burdened with medical bills, mothers with infants experienced socioeconomic hardships from the expenses and time required to care for a disabled child. Unlike other instances where governments pay for the expenses of their failures, such as in Germany with Thalidomide exposure, the Vietnamese mothers' experiences differed (Reagan, 2011).

Places where one's income relied on farming saw a sharp decrease in income and productivity because Agent Orange killed the crops (Palmer, 2005). Sixty percent of those surveyed were adults, and 52% could not remain employed, exemplifying the diminished income many adults faced. Low levels of education affected 40% of individuals. Fifty percent of the affected adults surveyed had no ability to work or study, and

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around 50% of children had no ability to work or study, further lowering the economic value of that person or family. Victims that could maintain employment received a 37% decrease in income (Palmer, 2005). The lack of education, resources, and adults and children able to support their family after exposure to Agent Orange contributed to the detrimental socioeconomic effects of the herbicide. The negligent actions of the United States military and corporations caused civilian populations to be unable to support their families, and their lives because Agent Orange disabled people from working and studying.

Despite its ignored responsibility in the spraying of Agent Orange, the United States provides more resources for its own disabled populations compared to the lack of resources given to the disabled Vietnamese from the herbicide (Reagan, 2011). Some Vietnamese civilians limited the amount they ate, and others could not support themselves, depending on external support for survival (Palmer, 2005). When lower income families did eat, they often consumed more fish than meat, increasing their dioxin levels and contributing to disease (Ha & Cordier, 1996). Starvation, due to the diminishment of the Vietnamese livelihood, created a condition for no economic or social prosperity for those affected. Without access to nutritious and uncontaminated food, it is unlikely for populations affected by Agent Orange to survive or maintain healthy lives.

In addition to economic effects of Agent Orange, Vietnamese mothers faced no acceptance in society because of their babies with birth defects and felt distraught by their babies' appearances and defects (Reagan, 2011). Even if mothers eventually came to terms with their children's problems, they still encountered stigma, feelings of regret, and inability to care for their children. A film depicting the harmful effects of Agent

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Orange, *Where War Has Passed*, illustrates and compares the access to schooling, disability care, and rights within the United States to Vietnam. The Vietnamese people receive limited social services, which contributes to difficult social and economic success and acceptance. Vietnam has limited access to wheelchairs and other services for the disabled (Reagan, 2011). Because the United States military ambushed Vietnamese society, Vietnam was ill prepared to deal with the consequences of the herbicide, both socially and economically.

### **Environmental Effects of Agent Orange**

According to a four-year study by the Hatfield Consultants, the spraying of Agent Orange destroyed half of the mangrove trees in Vietnam (Palmer, 2005). The herbicide killed crops belonging to civilians, destroying their ability to produce plants, and continued to prevent crop success due to the prevalence of dioxin in current soil in Vietnam (Palmer, 2005). The herbicide quickly and effectively destroyed plants within a few days, leading to starvation due to lack of a food source (Reagan, 2011). According to The Aspen Institute (2011), chemicals in Agent Orange demolished five million acres of land. In addition, 500,000 food resources became unusable, affecting the civilian populations' ability to survive. Vietnamese farmers can no longer utilize the land due to contaminated and eroded soil lacking nutrients (The Aspen Institute, 2011).

Additionally, the Agent Orange herbicide increased dioxin levels for fish and other edible sea creatures, potentially harming humans (Cyrnosky, 2002). This environmental distress creates both health and economic concerns. Tarnished seafood and fish lessens a population's food supply and causes health problems for humans that consume the sea creatures. In addition,

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the dioxin-infected fish cannot be exported to other countries, limiting the economic growth of Vietnam (Cyranosky, 2002). Birds and animals suffer from habitat destruction and might soon face extinction (The Aspen Institute, 2011). The negative environmental effects from the spraying of Agent Orange continue to affect Vietnamese populations because the variety of plant life no longer exists and the replenishment of plant systems has yet to occur (The Aspen Institute, 2011). The Vietnamese populations who suffered from a lack of nutritional variety in former plants known to the destroyed forests and animals could no longer survive in their original habitats. The destruction of Vietnamese crops and plants occurred at a fast rate, preventing humans and animals from adapting to the new conditions. The Aspen Institute (2011) asserts that restoring the forest is an achievable goal, but replanting must occur for this to happen. Overall, the spraying of Agent Orange destroyed ecosystems within Vietnam, causing harmful effects for the environment, which in turn harmed humans and animals.

### **Health Effects of Agent Orange**

Numerous groups within the United States examined the health effects of Agent Orange. Former President Ronald Reagan formed a group called the Agent Orange Working Group to monitor federal efforts to study the health effects of the herbicide (Young & Cecil, 2011). United States federal bodies conducted 50 studies to examine the health risks on Vietnam War veterans from 1979 to 1990. All of these studies disproved the idea that exposure to Agent Orange caused an increase in death due to the diseases attributed to the herbicide. A study of 104,000 war veterans failed to show an increase in cancers for those exposed to Agent Orange (Young & Cecil, 2011). In 1979, the United

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States Air Force conducted one of these studies on Vietnam War veterans and other non-Vietnam veterans (Buffer, Ginevan, Mandel, & Watkins, 2011). The study confirmed that Agent Orange had no significant effect on chloracne, cancer, and heart disease (Buffer et al., 2011). The studies conducted and funded by the United States government had incredible bias and motivation to mask the effects of the Agent Orange herbicide to escape blame for causing the influx of diseases on foreign soil. Eventually, the government came to recognize Agent Orange as producing negative health effects and inciting illnesses and diseases (Young & Cecil, 2011).

Non-government funded groups conducted studies and showed that the herbicide had a significant health risk for humans. A study collaborated between Vietnam and New York scientists discovered that populations exposed to the herbicide showed elevated amounts of dioxin in the blood of the Southern Vietnamese, compared to the non-exposed Northern Vietnamese populations (Palmer, 2005). The National Academy of Sciences formed a list of ailments connected to Agent Orange including respiratory cancers, type two diabetes, various types of leukemia in veterans' offspring, and prostate cancer (Palmer, 2005). The Department of Veterans Affairs created a list of diseases for compensation that include sub-acute and acute peripheral neuropathy, Hodgkin's disease, ischemic heart disease, multiple myeloma, non-Hodgkin's lymphoma, Parkinson's disease, and soft tissue sarcoma in Vietnam War veterans (Young & Cecil, 2011). Of the 300,000 Vietnam War veterans tested, approximately 2,000 of their children suffer from the birth defect spina bifida as well as acute myelogenous leukemia (Palmer, 2005). Agent Orange also causes a multitude of complications within the immune system (Cyrnosky, 2002). Other effects on

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the births of offspring include stillbirths, miscarriages, and infertility (Reagan, 2011). A Vietnamese woman revealed that of her ten pregnancies, she still has no offspring. Those exposed to the herbicide suffer from a skin condition called chloracne where the skin blisters (Reagan, 2011). It remains clear that despite contradicting studies, the United States government attributes a large number of diseases to exposure to Agent Orange. However, the government neglects its responsibility to apologize and pay for the damages.

### **Policy Implications**

Despite the United States' culpability for its military and corporate actions in the spraying of the Agent Orange herbicide, policies only somewhat confirm the guilt of the United States. Only United States' corporations have received blame for the destructive actions of the United States military (Palmer, 2005). United States law states that the government may not be sued without consent from the government. Thus, the government holds no responsibility for its actions during the Vietnam War (Palmer, 2005). The United States government also avoids mentioning the atrocities of Agent Orange's effects on Vietnamese populations to avoid blame (Reagan, 2011). The United States government should hold accountability for this social injustice. Vietnamese people affected by Agent Orange only filed a lawsuit in 2004 against the Dow Chemical Corporation and Monsanto (Palmer, 2005). Although these corporations held some liability, corporations have limited liability and often settle cases to avoid blame. Policy implementation occurs mainly at the domestic level and hardly reaches the Vietnamese civilian populations (Palmer, 2005). The United States pays monetary payments to Americans and

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Vietnamese Americans, yet does not pay reparations to the people affected in Vietnam before 1997 (Palmer, 2005).

United States Vietnam War veterans receive monetary payment if they exhibit any of the listed diseases that the United States recognizes (Palmer, 2005). The compensation for the United States veterans includes funding for disabled persons, medical bills, and nursing care (Palmer, 2005). Additionally, in 1990, the Department of Veteran Affairs gave compensation to veterans who have specific types of cancer, but more recently to people with diseases recognized by the Department of Veteran Affairs (Reagan, 2011). Veterans may receive compensation according to federal law (Young & Cecil, 2011). 15,500 veterans claim to have health effects caused by the herbicide annually (Young & Cecil, 2011). Children of United States veterans receive compensation if they have spina bifida or other defects at birth (Reagan, 2011). Despite veterans deserving compensation for their health problems relating to Agent Orange, payment only occurs after a struggle (Reagan, 2011). The fight for compensation and benefits for military victims and their children shows that the United States neglects responsibility as long as possible. Furthermore, the veterans and their children compose only a fraction of those individuals affected by Agent Orange, displaying that the United States, if forced to pay reparations, will only make repairs within its own borders. This inaction in regards to ignoring the rights violations in Vietnam shows that the United States barely cares about its own human rights record, and it definitely does not feel burdened by ensuring the rights of citizens of other countries.

In regards to environmental policies, Vietnamese governments collaborated with international governments to restore their damaged lands and forests (Palmer, 2005). The

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repairs to the forest focus on the mangrove trees that Agent Orange destroyed. A lack of funding for this project amounts to static environmental improvement. The success of replanting Vietnam's environment depends on a large amount of workers and funds from international governments (Palmer, 2005).

In 2000, Vietnam formed the Agent Orange Central Payments Programme to provide payment to those unable to obtain a job (Palmer, 2005). In comparison, the American programs for compensation provide spousal compensation, parents, and children of those affected by the herbicide. The Vietnamese government has limited resources to provide relief for those struggling to survive because of the United States spraying of the herbicide. The Vietnamese government can only provide a small monthly payment due to its economic condition. In 1998, the Vietnam Red Cross established other programs, including career training and education for the affected populations (Palmer, 2005).

Despite the lack of policies for affected populations, a movement towards educating the public on the wartime atrocities in Vietnam arose in the form of documentaries (Reagan, 2011). The media coverage of the detrimental effects of Agent Orange focuses on images of children's defective bodies. Although educational and informative, these strategies unjustly manipulate the audience to donate money to the victims. Although the use of documentary uses questionable tactics to educate, the amount of donations justifies the means to achieve it. A partnership between Vietnamese and Americans seeks to bring the United States government and corporations to accept blame and replenish the country with monetary funding. Supporters of Vietnamese victims help those affected by providing legal advice and by building schools and hospitals in Vietnam (Reagan,

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2011). The need for documentaries and social movements shows that governmental policies and laws do not suffice to repair the problems caused by the herbicide. In a human rights struggle, when a state denies rights to a population, grassroots organizations attempt to achieve rights for the abused group. Citizens and ordinary people fight for their rights in a grassroots movement using unconventional means such as social media.

The international response was in support of the plagued Vietnamese population. Decades after the initial atrocities occurred, both Vietnamese and foreign advocates strived for Vietnam to receive payment for the United States' war crimes (Reagan, 2011). Reagan compares the United States lack of culpability in Vietnam to the United States behavior after they bombed Hiroshima and Nagasaki in Japan. In both instances, the United States has not taken blame for its actions, and the fight for social justice remains unsuccessful (Reagan, 2011).

Overall, Dow Chemical Corporation and Monsanto have held minimal accountability for manufacturing the deadly Agent Orange herbicide. The United States government did not admit guilt or repay the Vietnamese victims still dealing with the harmful effects of the chemical herbicide. Instead, international communities responded with support for the affected Vietnamese populations because the United States failed to take the blame. Public policy and laws should give ample reparations for victims of wartime atrocities and human rights violations. Entire governments should be held culpable and apologize for their actions as a bare minimum requirement. For improvement of this environmental, economic, and health problem, Vietnam must receive compensation for each individual and family affected by Agent Orange. The United States government should pay entirely for the cost of past and future medical bills for any

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victim of the herbicide. Chemical and biological warfare should not be utilized in future warfare since it affects innocent civilian populations.

### **Conclusion**

The United States military, government, and corporate actions during the Vietnam War resulted in detrimental socioeconomic, health, and environmental effects on civilian populations with the spraying of Agent Orange. United States military personnel faced harmful health effects, including cancers and the transmission of diseases to their offspring. One might assume that a government should assess the risk of a chemical before imposing it both on foreign civilian populations and on the country's own military. However, the United States has historically and currently failed to provide basic human rights to its own citizens, so clearly the United States would act shamelessly in another country and not admit guilt. The United States victimized civilians by destroying their food sources, similar to the United States' domestic actions, by not providing the basic necessity of food to its citizens and sometimes preventing citizens from eating. As unsurprising as the United States' actions were, this type of behavior must discontinue in light of a world based on providing human dignities and a prosperous way of life to all.

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