

Agent Orange *a call to consciousness, clarity and conscience*

What is Agent Orange?

- It is a chemical compound of 2,4-D and 2,4,5-T.
- The term is sometimes used generically for the six chemicals that were used to destroy forests and food crops in Vietnam, Laos and Cambodia from 1961-1971, with a goal of revealing hiding places and reducing food supplies. It is also sometimes used as a generic for all the chemicals used during the war.
- In much lower doses, the chemical compound was used as an herbicide in the U.S. and other countries, until it was banned.
- Often these days the term is used as a synonym for TCDD dioxin, a form of dioxin that is one of the most toxic substances known to science. TCDD was a by-product of the manufacturing process of 2,4,5-T, and present in significant amounts in Agents Orange, Purple, Pink and Green.
- In 1969 the use of herbicides in war was declared a violation of the 1925 Geneva Protocol on chemical weapons by a nearly unanimous vote of the UN General Assembly. In 1975, President Ford signed an executive order renouncing the first use of herbicides in war.
- In March 2002, at the first conference on Agent Orange jointly sponsored by the US and Vietnam, the U.S. ambassador called Agent Orange the “one significant ghost” remaining from the war; his Vietnamese counterpart called it “chemical warfare”.
- Agent Orange has sometimes been called a metaphor for all the lingering consequences of war, and for an awakening of public concern about the lack of wartime responsibility of corporations and government.

How did it get its name?

Agent Orange was a nickname derived from the orange identification stripe painted around the 55-gallon barrels in which it was stored.

What is the history of Agent Orange?

From 1961 to 1971 the U.S. and our allies sprayed 21 million gallons of chemical herbicides by plane over the southern portion of today’s Vietnam. In addition, chemicals were sprayed by helicopter, riverboat, truck, and by hand around the perimeters of bases. Roughly 2/3 of these chemicals were contaminated by TCDD dioxin as a by-product of manufacturing.

While the record of spraying is still being compiled and corrected (see Stellman, below), the Air Force puts the total area sprayed in the south at 10% of land mass, including 33% of the upland forests and 40-50% of the coastal mangroves. This is an area roughly equivalent to the state of Massachusetts. In some provinces 50% of the land was denuded.

During the 1960’s, 5000 U.S. and international scientists, including 17 Nobel laureates, petitioned for a stop to the use of these chemicals. A Catholic newspaper (*Tin Sang*) in Saigon was censored for reporting stories of birth abnormalities in areas that were heavily sprayed. Bionetics Laboratory studies showed TCDD to cause birth defects in mice. The Dow Chemical Company called on fellow manufacturers to reduce the TCDD content of

their products. Studies were conducted by the American Academy for the Advancement of Science and the National Academy of Sciences. In 1969 the UN placed herbicides and defoliants on the list of chemicals banned by the 1925 Geneva Protocol against chemical weapons. In late 1970, the US ordered an end to their use in the war in Vietnam.

What are the lingering consequences of Agent Orange today?

For the environment: Damage to forests and trees, with resultant soil erosion, flooding, and complete change of the ecosystem in many places: serious damage to 28 river basins in the center of Vietnam; habitat destruction; species endangerment; disruption of the food chain; disruption of social systems; increased poverty. While some of the vegetation has re-grown or been replanted, a tough, economically useless grass still covers large areas. Nearly 2 million acres still lay barren at last report.

“Hot spots”: Research by Vietnam’s 10-80 Division and Hatfield Consultants of Canada shows that generally speaking the level of dioxin contamination in southern Vietnam today is low, below that of some industrialized countries. However, there are residual “hot spots” with dangerously high levels of wartime dioxin contamination in the following areas: former U.S. bases where Ranch Hand teams loaded herbicides into spray planes (including a 7,500 gallon spill at Bien Hoa that contaminated the adjacent ponds and homes); crash sites of Ranch Hand spray planes; dump sites where planes dumped their loads; lakes and ponds in heavily contaminated areas. Urgent work is needed to identify and clean up these areas to prevent ongoing human exposure.

For human health: The exact number of victims can never be known. A recent painstaking US study, however, has estimated that 2.1 to 4.8 million people were exposed in an area that is equal to 69% of the total of villages sprayed; population figures are not known for the other 31% of villages (see Stellman). This figure does not take into account US service personnel and others combatants temporarily in the area. The Vietnamese Association of Victims of Agent Orange estimates the figure of those currently suffering the effects of dioxin exposure at 1 to 2 million, including 300,000 children.

The U.S. Department of Veterans Affairs, based on studies by the U.S. Institute of Medicine, recognizes the following conditions as possible consequences of Agent Orange: soft-tissue sarcomas, Hodgkin’s disease, non-Hodgkin’s lymphoma, chloracne, chronic lymphocytic leukemia, respiratory and prostate cancers, multiple myeloma, peripheral neuropathy, porphyria cutanea tarda, type 2 diabetes, spina bifida. In the children of women veterans, 17 other birth defects are recognized as associated with service in Vietnam, although not necessarily with Agent Orange. US Veterans who served in Vietnam a minimum of one day between 1962-1975 may qualify for benefits.

Vietnamese scientists have linked exposure to Agent Orange to high rates of digestive ailments, neural disease, skin diseases, and cancers, and, for women living in sprayed regions, high rates of premature birth, spontaneous abortions, stillbirths, molar pregnancy, uterine cancer, and severe birth defects.

While research continues, Australia, Canada, New Zealand, South Korea, and Vietnam now all compensate veterans for Agent Orange linked diseases.

Other lingering consequences of war: Unexploded ordnance is another major problem. By 1998, unexploded ordnance had killed 38,000 people and wounded 64,000 others since

the *end* of the war. As of 2002, about 180 people per month continued to be wounded or killed. In addition, abandoned barrels of other chemicals still explode on contact.

What is being done today to address these consequences in Viet Nam?

- Grassroots support by Vietnamese for their fellow citizens.
- At the start of the 1990's, US veterans were among the first Americans to call for and provide assistance to Vietnamese thought to be contending with the consequences of the war-time chemicals. The work of veterans and their widows continues in such projects as the Friendship Village, the Quang-Nam Da Nang Fund, the Bob Feldman Fund, Orange Care-ers, among others.
- In 1998, the Vietnamese Red Cross, with the assistance of the International Federation of Red Cross and Red Crescent Societies, instituted an Agent Orange Victims Fund.
- Three large international scientific conferences have been held in Vietnam, with participants from roughly 20 countries in Europe and Asia. Conferences on both the scientific and the humanitarian aspects of Agent Orange were held in Stockholm (2002), Yale University (2002), Paris (2005), and Hanoi (2006).
- In 2004, three representatives of the Agent Orange Victims Association in Vietnam brought suit in New York against 37 chemical companies. Though the lawsuit and an appeal were both dismissed, the ruling had several provisions that favored the plaintiffs. The Supreme Court is currently being petitioned to take the case.
- The Ford Foundation, working since 2000 on the development of scientific facilities; clean-up efforts at Da-Nang airbase; supporting health care facilities; disability rights advocacy; support work of the Aspen Institute in establishing a high level Dialogue Group on Agent Orange between Vietnam and the United States.
- US government: pilot-project cooperation with Vietnam to identify, contain, and remove dioxin contamination; support for de-mining; disability assistance.

Where can I learn more? Here are some places to start:

Congressional Research Service Report, Nov 2008

www.opencrs.com (search Agent Orange)

Scientific Research:

Veterans and Agent Orange, Institutes of Medicine: <http://www.iom.edu>

Dioxin contamination, hot spots: Hatfield Consultants, Ltd., Canada:

<http://www.hatfieldgroup.com>

Spray routes and exposure: Jeanne Stellman et al at Columbia University's School of

Public Health: www.ehp.niehs.nih.gov/members/2003/5755

Legal services and court cases

Vietnam Agent Orange Victims Association court case: www.warlegacies.org

National Veterans Legal Services Program: <http://www.nvlsp.org>

Veterans' issues

http://www.vva.org/benefits/Guide/agent_orange.htm

Vietnamese organizations

Vietnam Agent Orange Victims Association. <http://vava.portal.vinacomm.com.vn>
Vietnam Red Cross Agent Orange Victims' Fund: <http://www.vnrc.org.vn>

Conference report websites

Stockholm Conference, 2002: www.nnn.se/vietnam/environ.htm

Paris Conference, 2005: www.aafv.org (in French)

Ford Foundation Agent Orange Initiative

www.fordfound.org/programs/signature/agentorange/issue

Aspen Institute www.aspeninstitute.org (dialogue and exchange; congressional testimony)

Books and articles

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