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OUR FORGOTTEN RESPONSIBILITY: WHAT CAN WE DO TO HELP VICTIMS OF AGENT ORANGE?

HEARING

BEFORE THE

SUBCOMMITTEE ON ASIA, THE PACIFIC, AND THE GLOBAL ENVIRONMENT

OF THE

COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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OUR FORGOTTEN RESPONSIBILITY: WHAT CAN WE DO TO HELP VICTIMS OF AGENT ORANGE?

THURSDAY, MAY 15, 2008

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ASIA, THE PACIFIC,
AND THE GLOBAL ENVIRONMENT,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The committee met, pursuant to notice, at 10:15 a.m., in room 2172, Rayburn House Office Building, Hon. Eni F.H. Faleomavaega (chairman of the subcommittee) presiding.

Mr. FALEOMAVAEGA. Good morning. The hearing will come to order. This hearing is by the Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment. The basic theme or topic of discussion of this hearing is called "Our Forgotten Responsibility: What Can We Do to Help the Victims of Agent Orange?"

I know my colleague, who is the ranking member of this subcommittee, is on his way, and I appreciate his efforts of joining me in conducting this hearing, and I am sure that some of my other colleagues will also be joining us later on.

I do want to welcome all of our witnesses this morning, and, without objection, all of the statements of our witnesses who will be testifying this morning will be made part of the record. I want to especially welcome the representative of the Department of State, my good friend, the Honorable Deputy Assistant Secretary of the Bureau of East Asian and Pacific Affairs, Mr. Scot Marciel, who, not only as a career Foreign Service Officer, but I want to personally welcome him, and, at an appropriate time, he will be given an opportunity to testify before this subcommittee.

In doing so, I have an opening statement that will be made part of the record, and perhaps, by that time, my good friend, Mr. Manzullo, will be here to offer his opening statement as well.

As I have said earlier, the theme or the area of discussion of this morning's hearing is entitled "Our Forgotten Responsibility: What Can We Do To Help the Victims of Agent Orange?"

In 1967, I joined the Army. I was deployed in Vietnam from April 1967 to May 1968, and it was in November of last year, in fact, for the first time in 40 years, I returned to Vietnam after serving there as a young soldier at the height of the Tet Offensive. Although my younger brother has since passed on, I wore his yellow Aloha shirt so he could return with me, since he, too, served in Vietnam.

My brother and I were young then, and our country was at war. Neither of us knew if we would come back from Vietnam in a body bag, or if we would come back to live and see our families again. Like so many, we made it home, and I would like to offer this special tribute to all of our men and women—I am honored to pay this special tribute to them who proudly served in the armed services of our nation during the Vietnam War, especially some 60,000 of our brave soldiers—Marines, sailors, and airmen—who were killed in that terrible conflict, let alone some hundreds of thousands of our men and women in military uniform who were wounded and maimed for life.

So, 40 years later, the world is in a different place. My brother passed away 2 years ago, and, to this date, I do not know what may be the consequences of his death as well, since he, too, served in that period where this Agent Orange was utilized by the military of our Government there in Vietnam.

The United States and Vietnam are no longer at war. Today, it is the policy of the United States to normalize relations with the Republic of Vietnam. In part, "normalizing relations" means coming to terms with our past. My time in Vietnam last November was a clear reminder that good people everywhere, no matter what country or what culture, want the same things in life: A sense of happiness, contentment, prosperity for their families, their children, and their children's children. I do not think the American Dream is any different from the good people living in Vietnam or any other country of the world, for that matter.

At a closing dinner hosted by the National Assembly of the Ho Chi Minh City, I had long discussions with members of their Foreign Affairs Committee who had also served in the Vietnam War. Although we were once enemies, we embraced each other as friends who share the same hopes and dreams for our families and countries.

I was also honored to meet with the Vice President, Ms. Nuente Dwan, who is a remarkable and inspirational woman, having, as a minority, risen to the top levels of the Vietnamese Government.

In Hanoi, I met with the deputy National Assembly's chairperson, Ms. Tong Vi Phan, who is also to be commended and recommended for her accomplishments as one of Vietnam's top national leaders.

I also had the privilege of meeting with the Vice Foreign Minister, Mr. Lee Van Bang, who I knew while he previously served as Ambassador of Vietnam to the United States.

In my generation, I do not think any of us expected that the day would come when we would meet under favorable circumstances, but that day did come, and the day has come for us to talk openly and frankly as friends about our forgotten responsibility to all of the victims of Agent Orange.

Some have tried to discourage this hearing from moving forward on the premise that this is a subject that we should not publicly be discussing. It ought to be done privately and without the public knowing about this issue. I do believe that any business worth doing is worth doing in the light of day.

This is why I commend the Aspen Institute and the Ford Foundation for establishing a U.S.-Vietnam Dialogue Group on Agent

Orange, and I am pleased that members of the Dialogue Group are courageous enough to be with us today to discuss ways in which Congress can be of assistance.

To my knowledge, this one of the few times in the history of the United States Congress that a hearing has been held on Agent Orange which includes the views of our Vietnamese counterparts. It is important for us to hear their concerns, as several studies estimate that, from the years 1961 to 1971, the United States military sprayed more than 11 million gallons of Agent Orange in Vietnam. Agent Orange was manufactured under the auspices and direction of Department of Defense contracts with several companies, including Dow Chemical and Monsanto Company.

Dioxin, a toxic contaminant known to be one of the deadliest chemicals made by man, was an unwanted and unforeseen byproduct that is thought to be responsible for most of the medical problems associated with exposure to Agent Orange. This is the kind of situation to say that we have had every good intention but have produced unintended consequences.

At the time, in 1961, the Department of Defense, or the Pentagon, for that matter, claimed that the use of Agent Orange was necessary to defoliate Vietnam's dense jungle in order to deprive the Viet Cong or Vietnamese forces from hiding in places. However, declassified documents uncovered in the U.S. National Archives indicate that, as early as 1967, the United States knew that, although, and I quote, "defoliation itself was successful," the use of Agent Orange had, and I quote, "little effect on military operations."

According to Hatfield Consultants Group, and the review that was made, the documents also suggested that the chemical companies and the Department of Defense knew, as early as 1967, of the potential long-term health risks and sought to "censor relevant news reports, fearing a negative backlash from the government and the public."

I ask unanimous consent that Hatfield Consultants' overview of Agent Orange be made a part of the record.

I am also including to be made part of the record a 1983 New York Times article by David Bernham, entitled "The 1965 Memos Show Dow's Anxiety on Dioxin," meaning Dow Chemical Company. Mr. Bernham reports that, in 1965, and I quote, "Scientists from four rival chemical companies attended a closed meeting at the Dow Chemical Company's headquarters. The subject was the health hazards of dioxin."

According to the report, "Dow Chemical did not want its finding about dioxin to be made known, fearing a congressional investigation."

More than 30 years later, while research clearly shows that Agent Orange was much more hazardous than anyone would admit, the United States and Vietnamese victims have not been adequately compensated, and Vietnam has not been cleaned up. Ironically, Dow Chemical Company is now doing business in Vietnam but refuses to help the victims of Agent Orange.

While war is ugly, so are the cover-ups. In my opinion, the Dow Chemical Company and every other chemical company involved ought to step to the plate and do what is right by the victims of

Agent Orange, just as tobacco manufacturers have begun to settle lawsuits brought on as a result of their false claims that the effects of smoking tobacco do not cause lung cancer.

The United States, in my humble opinion, has a high, high moral duty and responsibility and should also help clean up the environment.

To this day, Agent Orange, dioxin, remains in the ecosystem in Vietnam. Studies conducted in Vietnam by Hatfield Consultants, which I mentioned earlier, show that nearly 30 years after cessation of hostilities, dioxin remains in alarmingly high concentrations in soils, foods, human blood, and human breast milk in adults and children inhabiting areas in close proximity to former United States military installations.

Despite these findings, the United States, according to our State Department, has only provided $2 million for technical and scientific activities to help clean up Vietnam.

While last year, Public Law 110.28 set aside $3 million for environmental remediation and to support health programs in communities near these cities, as of March this year, the U.S. State Department had not released these funds or determined how they would be spent.

In contrast, from the year 2003 to the year 2006, the United States appropriated $35.7 billion for Iraq reconstruction projects. For Germany, according to the Congressional Research Service, "[i]n 2005 dollars, the United States provided a total of $29.3 billion in assistance from 1946 to 1952, with 60 percent in economic grants and nearly 30 percent in economic loans and the remainder in military aid. Total United States assistance to Japan, from 1946 to 1952, was roughly $15.2 billion, in 2005 dollars, of which 77 percent were in grants and 23 percent were in loans."

The question that is raised: Why can't we do more for our United States veterans and the victims of Agent Orange in Vietnam? We can, and, in my humble opinion, we should do more, and this is why I am pleased that our witnesses have accepted this invitation to testify.

I especially thank and recognize Dr. Nguyen, former vice speaker of the Vietnamese National Assembly and now director general of the Ngoc Tam Hospital in Ho Chi Minh City, who has traveled far to be with us today.

The subcommittee would also like to give special thanks to Mr. Walter Isaacson, the president and CEO of Aspen Institute and the former CEO and CNN and editor of Time magazine, who is currently in Louisiana helping in Hurricane Katrina recovery efforts and will soon be en route to the Palestinian territories.

Despite the demands of his hectic schedule, Mr. Isaacson has submitted a statement for the record, and, without objection, his statement will be made part of the record on behalf of the victims of Agent Orange, and I personally want to thank him for his generosity and time and the tremendous service he gives to people from all different walks of life.

[The prepared statement of Mr. Faleomavaega and material submitted for the record follow:]

PREPARED STATEMENT OF THE HONORABLE ENI F.H. FALEOMAVAEGA, A REPRESENTATIVE IN CONGRESS FROM AMERICAN SAMOA, AND CHAIRMAN, SUBCOMMITTEE ON ASIA, THE PACIFIC, AND THE GLOBAL ENVIRONMENT

In 1967, I joined the Army and was deployed to Vietnam. Last year, for the first time in nearly 40 years, I returned to Vietnam after having served in Nha Trang as a young soldier at the height of the Tet Offensive. Although my younger brother, Taulauniu, had since moved on to a better place, I wore his yellow aloha shirt so he could return with me since he, too, served in Vietnam.

When we were young and at war, neither of us knew if we would come back from Vietnam in a body bag, or if we would live to see our loved ones again. Unlike so many, we made it home. In brotherhood, we honored the sacrifices of those who did not.

Forty years later, the world is a different place. Tau is gone. I am here. And, the United States and Vietnam are no longer at war. Today, it is the policy of the United States to normalize relations with Vietnam.

In part, normalizing relations means coming to terms with our past. My time in Vietnam last November was a clear reminder that good people everywhere want the same things in life. At a closing dinner hosted by the National Assembly of Ho Chi Minh City, I had long discussions with members of their Foreign Affairs Committee who had also served in the Vietnam War. Although we were once enemies, we embraced each other as friends who share the same hopes and dreams for our families and countries.

I was also honored to meet with Vice President Ms. Nguyen Thi Doan who is a remarkable and inspirational woman, having, as a minority, risen to the top levels of the Vietnamese government. In Hanoi, I met with Deputy National Assembly Chairperson Ms. Tong Thi Phong who is also to be commended and recognized for her accomplishments as one of Vietnam's top national leaders. I also had the privilege of meeting with Vice Foreign Minister Mr. Le Van Bang who I knew while he previously served in Washington, DC as Vietnam's Ambassador to the United States.

Of our generation, I don't think any of us expected that the day would come when we would meet under favorable circumstances. But that day has come, and the day has also come for us to talk openly, as friends, about our forgotten responsibility to the victims of Agent Orange.

Some have tried to discourage this hearing from moving forward on the premise that this is a subject we should not publicly broach but should only privately discuss. I am a firm believer that any business worth doing is worth doing in the light of day.

This is why I commend the Aspen Institute and the Ford Foundation for establishing a U.S.-Vietnam Dialogue Group on Agent Orange, and I am pleased that members of the Dialogue Group are courageous enough to be with us today to discuss ways in which Congress can help.

To my knowledge, this is the first time in the history of the U.S. Congress that a hearing has been held on Agent Orange which includes the views of our Vietnamese counterparts. It is important for us to hear their concerns as several studies estimate that from 1961 to 1971 the U.S. military sprayed more than 11 million gallons of Agent Orange in Vietnam.

Agent Orange was manufactured under Department of Defense (DOD) contracts by several companies including Dow Chemical and Monsanto. Dioxin, a toxic contaminant known to be one of the deadliest chemicals made by man, was an unwanted byproduct and is thought to be responsible for most of the medical problems associated with exposure to Agent Orange.

At the time, the U.S. military claimed the use of Agent Orange was necessary to defoliate Vietnam's dense jungle in order to deprive the Viet Cong of hiding places. However, declassified documents uncovered in the U.S. National Archives indicate that as early as 1967, the U.S. knew that although "defoliation itself was successful," the use of Agent Orange had "little effect on military operations."

According to Hatfield Consultants, the documents also suggest that the chemical companies and DOD new as early as 1967 of the potential long-term health risks, and sought to "censor" relevant news reports, "fearing a negative backlash from government and the public." For the record, I am submitting Hatfield Consultants' overview on Agent Orange.

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According to the report, Dow did not want its findings about dioxin to be made known fearing a "Congressional investigation."

More than 30 years later, while research clearly shows that Agent Orange was much more hazardous than anyone would admit, U.S. and Vietnamese victims have not been adequately compensated, and Vietnam has not been cleaned-up. Ironically, Dow is now doing business in Vietnam but refuses to help the victims of Agent Orange.

While war is ugly, so are cover-ups. In my opinion, Dow and every other chemical company involved ought to step up and do right by the victims of Agent Orange just as tobacco manufactures have begun to settle lawsuits brought on as a result of their false claims.

The U.S. should also help clean up the environment. To this day, Agent Orange dioxin remains in the ecosystem. Studies conducted in Vietnam by Hatfield Consultants from 1994–2000 show that "nearly 30 years after cessation of hostilities, dioxin remains at alarmingly high concentrations in soils, foods, human blood and human breast milk in adults and children inhabiting areas in close proximity to a former US military installation."

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Why can't we do more for our U.S. veterans and the people of Vietnam? We can and should do more, and this is why I am pleased that our witnesses have accepted this invitation to testify. I especially thank and recognize Dr. Nguyen, former Vice Speaker of The Vietnamese National Assembly and now Director General of the Ngoc Tam Hospital in Ho Chi Minh City, who has traveled far to be with us.

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I now recognize our Ranking Member for his opening statement.

STATEMENT OF WALTER ISAACSON, PRESIDENT AND CEO, THE ASPEN INSTITUTE

PARTNERSHIPS TO HEAL THE WOUNDS OF WAR

Mr. Chairman,

Thank you for this opportunity to submit a statement in my capacity as President and CEO of The Aspen Institute for the Subcommittee's hearing on "Our Forgotten Responsibility: What Can We Do to Help Victims of Agent Orange?" The Aspen Institute is an international nonprofit organization dedicated to fostering enlightened leadership and open-minded dialogue. Over a span of two decades The Aspen Institute has promoted a series of Track Two exercises intended to further understanding and cooperation between the United States and its former adversaries in the Vietnam War. For several years in the late 1980's and early 1990's, Aspen's Indochina Project brought together policymakers and scholars on both sides of the Pacific to encourage normalization between the United States and Vietnam, Laos and Cambodia.

Aspen's current work in this realm is more specific but is still concerned with addressing the legacies of the war. Last year Aspen launched a program to promote advocacy and exchange on Agent Orange/Dioxin, with the aim of educating Americans about the continuing impact of dioxin on human health and the environment in Vietnam. In addition, I am honored to co-chair the US-Vietnam Dialogue on Agent Orange/Dioxin with Madame Ton Nu Thi Ninh, founding president of Tri Viet University and former Vice Chair of the International Relations Committee of the National Assembly of Vietnam.

The Parameters of the Problem

Through Department of Defense records and recent studies, it is possible to quantify the amount of herbicides with dioxin that were dropped on Vietnam from 1962 to 1971 during the war. The United States sprayed a minimum of 20 tons of chemicals—although new reports uncovered suggest that much more was used—to defoliate dense jungle and detect movement of personnel and equipment from north to south, and to destroy enemy crops. During this time, Agent Orange and other herbicides were stored at the large US airbases in Danang and Bien Hoa. Containers of these chemicals occasionally leaked or were spilled, leeching into the soil and carried by monsoon waters to the communities surrounding the bases.

We may never be able to quantify the human health and environmental cost to Vietnam of this wartime operation. We can, however, see its impact in the alarming rates of birth defects, cancers and other health disorders believed to be linked to dioxin in Vietnamese veterans and their children, as well as in civilians living where the chemicals were sprayed or stored. Rough estimates by the Vietnamese government suggest that as many as one million people may have been affected in this way. Some of the millions of acres of vegetation destroyed by the spraying may be reclaimed in the long term, but the ecology of the affected areas has been disturbed for decades, and some animal species have been threatened with extinction.

Nor is this damage finite. The United States left behind 25 "hot spots" where Agent Orange leaked or was spilled, and these highly toxic spots continue to contaminate people living in the area. Thus, Agent Orange finds new victims in Vietnam on a daily basis. At the same time, birth defects caused by genetic damage related to dioxin are now seen in the third generation of Vietnamese. The complex nature of the ongoing contamination calls for a variety of strategies to mitigate the damage of Agent Orange rather than a single solution.

The US-Vietnam Dialogue on Agent Orange/Dioxin

Although US-Vietnam relations have expanded dramatically in the past decade, the issue of Agent Orange is a significant obstacle to deepening the relationship. Two kinds of partnerships are needed to address this multi-faceted problem. First, US Government and US civil society institutions must come together to offer the strongest and most humane American response possible. Second, partnerships are needed between Vietnamese and Americans to identify appropriate interventions and implement programs in the most effective way possible.

In early 2007 the US-Vietnam Dialogue on Agent Orange/Dioxin was established with leadership and funds from the Ford Foundation. Susan Berresford, former president of the Ford Foundation, is convenor of the Dialogue, which seeks to build a collective bipartisan and bilateral humanitarian response to a sensitive issue that has thusfar eluded an easy resolution. The Dialogue Group has held three meetings in the past year, two in Vietnam and one in the United States. In Vietnam, the DG has visited people affected by dioxin exposure in several locations, including Ho Chi Minh City; Bien Hoa; Danang; Quang Ngai; and Thai Binh.

The Dialogue Group is not a funding agency per se, but seeks to identify funds and additional partners in five priority areas:

- *Containing dioxin at former airbases to prevent ongoing and future contamination;*
- *Expanding services to people with disabilities, with particular attention to populations in affected areas;*
- *Establishing a world-class high resolution dioxin laboratory in Vietnam to help measure the extent of contamination and contribute to international research on this subject;*
- *Restoring landscape and other aspects of the environment affect by the wartime use of Agent Orange; and*
- *Educating Americans about the continuing impact of dioxin in Vietnam and "mainstreaming" this issue in the US policy community and with the US public.*

Funds for initial activities in these priority areas have been provided by the Ford Foundation through its Special Initiative on Agent Orange/Dioxin. However, as noted above, one central mission of the Dialogue Group is to identify a wider circle of private sector partners to join this effort. As well, the DG seeks to educate policymakers in the US Government and international institutions to encourage a significant and sustainable contribution to the remediation of Agent Orange.

The Road Ahead

Although we have seen a new, if low-key, willingness to address the problem of Agent Orange on the part of American policymakers and non-governmental groups, the bulk of the work is still to be done. For example, the Ford Foundation has worked in partnership with the Environmental Protection Agency and the US State Department to begin containment of dioxin at the Danang airport, but actual clean-up of the residual chemicals on the base must await future funding. Arguably the most long-term and complex problem in this portfolio is addressing the human health costs of dioxin exposure, and the profound needs of disabled Vietnamese and their families. Although responsibility for contamination of the former bases belongs to the United States, it is not possible to make such a clear-cut determination on human health issues. In that realm, assistance to the disabled should be offered on humanitarian grounds.

Finally, we should never forget that US Vietnam War veterans and their families have suffered similar problems linked to dioxin. They have been generous in their support for assistance to their Vietnamese counterparts, but they too are in need of closer attention, with expanded and more sustained services.

I commend the Subcommittee for these hearings, which represent the first time the issue of Agent Orange in Vietnam has been considered in a Congressional forum of this kind. It is my hope that they will serve two purposes. First, that the hearings will help educate Americans on the need for a humanitarian response to this issue as a legacy of a tragic war that is still rooted in our national consciousness. Second, that the hearings will lead eventually to separate legislation and other official measures that will guarantee that Vietnamese are no longer contaminated on an ongoing basis by the chemicals we used during the war, and that those whose past exposure has left them with harsh and lifelong disabilities will benefit from humanitarian assistance.

Mr. FALEOMAVAEGA. I now recognize my good friend, the ranking member of our subcommittee, the gentleman from Illinois, Mr. Manzullo, for his opening statement.

Mr. MANZULLO. Thank you, Mr. Chairman. That was a magnificent opening statement itself, and I want to thank you on behalf of the United States Congress for your distinguished service in Vietnam and your passion for this subject. It is without hesitation that I am delighted to serve as the ranking member on this subcommittee and delighted to serve under Congressman Faleomavaega for his outstanding leadership.

We faced something similar to this in the Gulf War. I worked together with Senator K. Billy Hutchinson and, actually, Ross Perot at that time, and I know, Chairman, you were involved in the huge lift to actually reverse the presumption for disability of those who were exposed to X chemicals during the time of what we call the "first Gulf War" in the early nineties, and I was honored with the fact that the National Coalition of Gulf War and Vietnam Veterans gave me the Distinguished Award for 2001 for the service that I had the honor of providing to our men and women in uniform.

Mr. Chairman, I look forward to the testimony. I cannot stay the entire time, but, obviously, thank you for your leadership and courage in this area.

Mr. FALEOMAVAEGA. I thank my good friend, the gentleman, for his kind comments.

I do not know where this is going to lead us, but we have got to start somewhere, and if, more than anything, the purpose of having oversight hearings like this is to establish a record to bear out the facts of the evidence, the information, not only for the education of our American public, but to let them know that this is not just the people of Vietnam that were subjected to this but even our own men and women in uniform.

Now, I know there have been some compensations, lawsuits, taken and all of this, but, anyway, we will proceed as we go along with the statements and the testimonies that will be provided by our witnesses this morning.

I do want to thank Mr. Scot Marciel, the deputy assistance secretary, the State Department, that will be testifying on behalf of the administration. Mr. Marciel is a career Foreign Service Officer since 1985. His most recent assignment was serving as director of the Department of the Office of Maritime, Southeast Asia; director of the Office of the Mainland Southeast Asia. My gosh, what other directorships have you been under?

He has had assignments in Vietnam, the Philippines, Hong Kong, Brazil, and Turkey and served also under the Economic Bureau's Office of Monetary Affairs.

Mr. Marciel is a resident of California. He graduated from the University of California at Davis and also from the Fletcher School of Law and Diplomacy. Mr. Marciel, always a personal welcome from me to you and to, again, thank you for taking the time from your busy schedule to join with us to give us the benefit of some of the great happenings there at your side of the shop. Hopefully, we can work these things out mutually and come up with some good resolutions in solving some of the problems of the issue that is now before us. Mr. Secretary.

STATEMENT OF THE HONORABLE SCOT MARCIEL, DEPUTY ASSISTANT SECRETARY, BUREAU OF EAST ASIAN AND PACIFIC AFFAIRS, U.S. DEPARTMENT OF STATE

Mr. MARCIEL. Thank you very much, Chairman Faleomavaega and Ranking Member Manzullo and Members of the subcommittee, for inviting me to testify today on the topic of the United States' engagement with Vietnam on issues related to Agent Orange.

Before delving into the specific topic of Agent Orange, I would like to briefly comment on overall relations between the United States and Vietnam. Since reestablishing diplomatic ties in 1995, our relationship has made major strides, enabling progress on issues ranging from trade liberalization to protection of religious freedom to nuclear safety, as well as providing a platform for more usefully discussing our differences. Our progress in recovering and the accounting for the remains of Americans lost during the Vietnam conflict deserves special mention as an example of joint collaborative efforts.

As you said, Mr. Chairman, we have made a lot of progress in this relationship. I was honored to be in Vietnam for the reestablishment of diplomatic relations in 1995. It is an important relationship and one where we are trying to build a good future based on shared interests.

We implement a broad foreign assistance program in Vietnam which supports economic reform and good governance, civil society, health, and security. Our assistance includes programs to address genuine humanitarian needs, including HIV/AIDS treatment and prevention and support for those with disabilities, without regard to cost.

Since 1989, the United States has funded approximately $43 million in programs in Vietnam to support people with disabilities.

This includes significant contributions from the Leahy War Victims Fund.

On the specific issue of this hearing, Agent Orange has long been a sensitive issue for both countries, and we have differed over the lasting impact of the defoliant on Vietnam. However, in recent years, we have moved beyond finger-pointing and engaged in practical, constructive cooperation. With the support of additional funds from Congress, we are moving ahead, in a multilateral effort, to help Vietnam address environmental contamination and related health concerns.

Our governments have engaged in joint cooperation on the issue of dioxin contamination since 2001. United States assistance is provided in the spirit of cooperation, with the hope of strengthening the scientific capacity and infrastructure of Vietnam's research institutions and improving the ability of the Government of Vietnam to protect the environment and promote public health for future generations.

The United States does not recognize any legal liability for damages alleged to be related to Agent Orange. We continue to stress that the discussion of the effects of Agent Orange needs to be based on credible scientific research that meets international standards.

Examples of our ongoing bilateral cooperation on Agent Orange include the formation of a Joint Advisory Committee composed of United States and Vietnamese Government officials and experts to review possible joint activities; joint workshops conducted by the U.S. Department of Defense and the Vietnamese Ministry of Defense, at which the United States shared remediation experiences and provided detailed historical information about Agent Orange loading and storage operations; and a 5-year, $2 million project that the U.S. Environmental Protection Agency carried out to build capacity for laboratory analysis of dioxin and site evaluation of the Danang Airport.

We are continuing to build on these cooperative efforts with the support of the U.S. Congress. In May 2007, President Bush signed a Fiscal Year 2007 supplemental appropriations bill that included $3 million to be used for "environmental remediation and health activities" at "hot spots" in Vietnam.

The newly established USAID Mission in Vietnam is the lead implementing agency coordinating efforts to put these funds to good use. The first $1 million will be used to finance health and rehabilitation activities in Danang and to establish an Agent Orange program coordinator. The balance of the funds will support the predesigned planning and initiation of health and environmental mitigation activities, building on United States programs that support sampling analysis, dioxin containment in Danang, and efforts to upgrade Vietnamese scientific capacity.

USAID has already identified health-related projects in the Danang area for possible funding and is now advertising to fill the coordinator position.

United States assistance complements an increasingly multilateral approach to Agent Orange in Vietnam and encourages participation from a variety of other sources. The U.S. Government shares the goals of a clean, safe environment and of general disability as-

sistance with many partners. The Ford Foundation and the United Nations Development program are examples of leaders in this area.

U.S. engagement has catalyzed these efforts, and we look forward to coordinating our projects with our partners.

In conclusion, we will continue to pursue constructive ways to work with the Government of Vietnam and other donors to address concerns related to Agent Orange and dioxin. Our efforts will focus on supporting Vietnamese efforts to ensure a safe environment and assisting Vietnamese living with disabilities, regardless of the cost.

In particular, we will seek to work with Vietnamese scientists and health experts to address Vietnam's concern over human exposure to dioxin and other toxins in the environment and will support Vietnam's promotion of good prenatal care to minimize disabilities.

Thank you for giving me the opportunity to appear before you. I welcome your questions. Thank you, Mr. Chairman.

[The prepared statement of Mr. Marciel follows:]

PREPARED STATEMENT OF THE HONORABLE SCOT MARCIEL, DEPUTY ASSISTANT SECRETARY, BUREAU OF EAST ASIAN AND PACIFIC AFFAIRS, U.S. DEPARTMENT OF STATE

U.S.-VIETNAM COOPERATION ON ISSUES RELATED TO AGENT ORANGE

Chairman Faleomavaega, Ranking Member Manzullo, and Members of the Subcommittee, thank you for inviting me to testify today on the topic of United States engagement with Vietnam on issues related to Agent Orange and its contaminant, dioxin.

Overall Relationship

Before delving into specifics, I would like to briefly comment on overall relations between the United States and Vietnam. Since reestablishing diplomatic relations in 1995, we have made major strides in our bilateral relationship, which have enabled us to move forward on a range of issues as well as more fruitfully discuss areas of difference. Our strengthened ties have enabled us to make progress on issues ranging from trade liberalization to protections of religious freedoms to nuclear safety. Our success in recovering and accounting for the remains of Americans lost during the Vietnam conflict, with 627 Americans repatriated to date, deserves special mention as an example of joint collaborative efforts. Vietnam's non-permanent seat on the UN Security Council opens a new avenue for bilateral dialogue.

In areas where the United States and Vietnam do not always see eye-to-eye, our fortified relationship empowers us to speak openly about difficult issues, seek common ground, and work together constructively.

We also implement a broad foreign assistance program in Vietnam as part of our growing relationship, which includes programs to strengthen economic reform and good governance, encourage civil society, promote health and security, and address the consequences of conflict. Our funding targets genuine humanitarian needs in Vietnam, including HIV/AIDS treatment and prevention, support for those with disabilities, combating human trafficking, development in the Central Highlands, disaster mitigation and relief, and controlling avian influenza.

Vietnam is one of fifteen focus countries under the President's Emergency Plan for AIDS Relief (PEPFAR), and in Fiscal Year 2007, we gave $63 million for HIV/AIDS prevention, care, and treatment.

We also provide assistance to Vietnamese individuals with disabilities, without regard to their cause. Since 1989, the United States has funded approximately $43 million in programs in Vietnam to support people with disabilities, including significant contributions from the Leahy War Victims Fund.

Background on Agent Orange Cooperation

Turning to the topic of this hearing, Agent Orange has long been a sensitive issue for both countries, and we have differed over the lasting impact of the defoliant on Vietnam. However, in recent years, we have moved beyond finger-pointing and engaged in practical, constructive cooperation. With the support of additional funds from Congress, we are moving ahead in a multilateral effort with other donors to help Vietnam address environmental contamination and related health concerns at former dioxin storage sites.

We understand and acknowledge that the Government of Vietnam and the Vietnamese people are concerned with the perceived negative health effects of exposure to Agent Orange and its contaminant, dioxin. At the same time, the United States does not recognize any legal liability for damages alleged to be related to Agent Orange. We continue to stress that discussion of the effects of Agent Orange needs to be based on credible scientific research that meets international standards.

U.S.-Vietnam Collaborative Efforts

The U.S. government has been engaged substantively in joint cooperation with the government of Vietnam on the issue of dioxin contamination since 2001. U.S. government assistance is provided in the spirit of cooperation, with the hope of strengthening the scientific capacity and infrastructure of Vietnam's research institutions and improving the capacity of the government of Vietnam to protect the environment and promote the public health for future generations.

Examples of our ongoing bilateral cooperation on Agent Orange include:

1. Formation of a Joint Advisory Committee composed of U.S. and Vietnamese government officials and experts to review possible joint activities, including scientific cooperation, technical assistance, and environmental remediation related to dioxin contamination. We are encouraged by the outcome of the Committee's first two meetings in 2006 and 2007, which continued bilateral technical dialogue and resulted in consensus recommendations for future cooperation on environmental, health, and capacity building projects.
2. Joint Workshops conducted by the U.S. Department of Defense and the Vietnamese Ministry of Defense at which the DOD shared U.S. government remediation experiences and provided detailed historical information about Agent Orange loading and storage operations in Vietnam.
3. A five-year, $2 million project the U.S. Environmental Protection Agency (EPA) carried out with the Vietnamese Academy of Science and Technology and Ministry of Defense to build capacity for laboratory analysis of dioxin and related chemicals and site evaluation at the Danang Airport, which resulted in the November 2005 opening of the Vietnamese Academy of Science and Technology-EPA Joint Dioxin Research Analytical Laboratory in Hanoi.
4. Provision of $400,000 by the State Department and EPA for technical assistance for mitigation planning in Danang, specifically for evaluating the site with the goal of containing the dioxin and preventing contamination of the surrounding area.

In recognition of the U.S.-Vietnam shared desire to collaborate on Agent Orange, President Bush and Vietnam's President Triet declared in a November 17, 2006 Joint Statement that "further joint efforts to address the environmental contamination near former dioxin storage sites would make a valuable contribution to the continued development of their bilateral relations."

Future Agent Orange Projects

We are continuing to build on these cooperative efforts with the support of Congress. In May 2007, President Bush signed an FY2007 supplemental appropriations bill that included $3 million to be used for "environmental remediation and health activities" at "hot spots" in Vietnam.

To prepare for implementation programs supported by these new funds, the U.S. government conducted an inter-agency review that endorsed using the funds for environmental remediation, or "clean up," of dioxin "hotspots" in Vietnam, in addition to humanitarian assistance, capacity building, and scientific cooperation.

The newly established USAID Mission in Vietnam is the lead implementing entity coordinating and implementing efforts to utilize the $3 million in supplemental funds. Activities to be funded with the first $1 million include: financing health and rehabilitation activities in Danang and establishing an Agent Orange program coordinator within the USAID Mission to manage projects. We will use the balance of the funds to finance health and environmental activities. The USAID Mission has already identified health-related projects in the Danang area for possible funding, and USAID and the U.S. Embassy in Hanoi are consulting with their Vietnamese counterparts on the details. USAID is now advertising to fill the coordinator position.

Recognizing Other Donors' Support

This U.S. assistance complements an increasingly multilateral approach to responding to Agent Orange and dioxin in Vietnam and encourages participation from a variety of other sources. The U.S. government shares the goals of a clean, safe environment—and of general disability assistance—with many donor partners. The

Ford Foundation and the United Nations Development Program are examples of leaders in this area. Several other new donors, including the Governments of Greece and New Zealand and The Atlantic Philanthropies, are considering related assistance. U.S. engagement has catalyzed these efforts, and we look forward to coordinating our projects with those of our partners.

Conclusion

In conclusion, we will continue to pursue constructive ways to work with the Government of Vietnam and other donors to address concerns related to Agent Orange and dioxin. Our efforts will continue to focus on supporting Vietnamese efforts to ensure a safe environment and assisting Vietnamese living with disabilities, regardless of their cause. In particular, we will seek to work with Vietnamese scientists and health experts to address Vietnam's concern over human exposure to dioxin and other toxins in the environment; and support Vietnam's promotion of good prenatal care to minimize disabilities.

Thank you for giving me the opportunity to appear before you today. I welcome your questions.

Mr. FALEOMAVAEGA. Thank you, Mr. Secretary.

My good friend, if you have any questions?

Mr. MANZULLO. You go first.

Mr. FALEOMAVAEGA. All right. He has given me the courtesy to ask some questions. Thank you, Don.

Mr. Secretary, you had indicated earlier that, at this stage now of an incident that occurred some 30 to 40 years ago, we have moved beyond the finger-pointing. I agree with you, but that still does not take away the fact that the issue is still there, and I am not going to be a priest to say that somebody did right or did wrong.

But I do want to say that I noticed with interest, to quote your statement, saying, "At the same time, the United States does not recognize any legal liability for damages alleged to be related to Agent Orange." Can you explain why the United States does not want to claim responsibility for this 10-year period?

I do not think the Vietnamese people wanted us to do this, but, of course, as I said earlier, good intentions of defoliating the jungles and all of this, but we henceforth have produced an unintended consequence: The byproduct of this herbicide comes out to be dioxin, one of the deadliest agents or chemicals substances ever devised by the hand of man.

Am I to hear that, for this 10-year period, the U.S. just simply says, "We take no responsibility for what we did"? And, by the way, this was not just to the Viet Cong or the Northern Vietnamese armies. These are people in South Vietnam themselves. These are our friends. These are the people that we are supposed to be protecting and help fight alongside the so-called entourage of Communism in this country, and I would appreciate your comment on this.

Mr. MARCIEL. Thank you, Mr. Chairman. I confess, I am not a lawyer, and I would have——

Mr. FALEOMAVAEGA. I am not a lawyer either, so that makes the both of us.

Mr. MARCIEL. I understand from our lawyers that it is a rather complicated legal issue but that our lawyers have determined, I think, over many years, that we do not accept any legal liability for Agent Orange. But I think what is important here——

Mr. FALEOMAVAEGA. Mr. Secretary, can I ask if your lawyers of your Department could submit for the record their legal opinions

stating that they claim no responsibility—my Government, our Government claims no responsibility for this incident or this thing that has happened in Vietnam for this 10-year period? I would appreciate it. I definitely will make that as part of the record.

Mr. MARCIEL. Certainly. I would be happy to do that.

Mr. FALEOMAVAEGA. So that absolves you from any responsibilities.

Mr. MARCIEL. Well, thank you, Mr. Chairman. We will certainly get back to you with the legal——

Mr. FALEOMAVAEGA. Do you have an attorney there with you from the office perhaps?

Mr. MARCIEL. No, we do not.

Mr. FALEOMAVAEGA. Okay. Very good.

Mr. MARCIEL. We will provide the legal reasoning.

[The information referred to follows:]

WRITTEN RESPONSE RECEIVED FROM THE HONORABLE SCOT MARCIEL TO QUESTION ASKED DURING THE HEARING BY THE HONORABLE ENI F.H. FALEOMAVAEGA

The consistent position of the United States has been that the U.S. military's use of herbicides in Vietnam was consistent with international law. In the view of the United States, any categorical ban on the use of poisons under international law is limited to weapons used for the primary and intended effect of causing injury or death. The United States use of herbicides during the Vietnam War for the purposes of defoliating military bases, transportation corridors, and other crucial territory, and destroying enemy crops, therefore did not contravene the ban on poisons. A number of U.S. court decisions, including the recent Second Circuit decision in the case of Vietnam Association for Victims of Agent Orange v. Dow Chemical Company, 517 F.3d 104 (2d Cir. 2008), support the validity of this position.

Mr. MARCIEL. What I want to stress, Mr. Chairman, is we understand and acknowledge the Vietnamese concerns, and we are trying to move forward. While not accepting the legal liability, we do accept that they have concerns about health and environment, and we are working with them to try——

Mr. FALEOMAVAEGA. That is a moral responsibility, I would say.

Mr. MARCIEL. Well, I think what we have done in this relationship, as you know, there has been a whole range of issues that broadly fall under the category of legacies of the war, and I think part of what has enabled us to build this relationship is that, even when there may not be agreement on legal obligations, I think both of our governments have tried to address the other side's concerns in a practical way, and that has really been, I think, a pillar of this relationship over the last——

Mr. FALEOMAVAEGA. Would you agree with me, Mr. Secretary, that we want to make this distinctly clear, that the use of Agent Orange was not just to use against the enemy forces or the enemy soldiers, if you want to put it. It also encompassed those who are friends of our Government and our country. The South Vietnamese were just as much exposed to Agent Orange as the NVA forces or the Viet Cong.

I just want to be clear on this so that we can proceed, and to suggest that they are the enemy, we are the good guys, so, therefore, only the enemy should be subjected to Agent Orange; I think that is a very incorrect way of looking at the situation that we find ourselves in.

Mr. MARCIEL. Mr. Chairman, my understanding of the use of Agent Orange was that it was not intended as a weapon against

the enemy but that it was used, as you said, as a defoliant through various parts of the country. So, yes, I agree with you, it was not targeted against the enemy and would have been used throughout different parts of the country as a defoliant rather than as a weapon, and so any concerns, health or environmental, related to that, and also stored, for example, in certain areas like the Danang Airport. So any environmental or health concerns following from that would not be necessarily related to the "enemy" from the war.

Mr. FALEOMAVAEGA. My understanding is that the beginning of the use of herbicides started at the time of President John F. Kennedy when he issued an Executive Order in 1961, and then, in 1965, 1966, 1967, they came then with the idea, hey, we have got a real problem here with this herbicide because it contains dioxin.

Now, my understanding, and correct me if I am wrong, is that the chemical companies knew about this. They knew about this. Did the Department of Defense know about this? That is my question. Did the Pentagon know about this? This is 4 or 5 years later. Again, I want to emphasize the fact that defoliage was not just on North Vietnam. The whole country was enveloped with the usage of this herbicide.

So I am trying to read in my own mind, Mr. Secretary, why we are not claiming at least partial responsibility for this because we are the ones that used it. The North Vietnamese did not use any chemical herbicide. Is it a herbicide? I am still learning how to speak English. It is herbicide—right?—or defoliants.

Mr. MARCIEL. Herbicide or defoliant, yes. Right.

Mr. FALEOMAVAEGA. Okay.

Mr. MARCIEL. Mr. Chairman, I am certainly not an expert on the history of how it was used and the details of how it was used. What I think we have found, and we have agreed with our Vietnamese counterparts, that several former Agent Orange storage sites, including Danang, Phucot, Viemwa, as a result of the storage, have dioxin soil and sediment concentrations that exceed the maximum acceptable levels recommended by the EPA.

Mr. FALEOMAVAEGA. Was it 100 times more potent, what dioxin would be found, than the pesticides or something like that? You can help me. Maybe you could submit that for the record: How potent was the percentage of dioxin in these chemical compounds that were used by the military?

Mr. MARCIEL. I do not know that, but we can get it for you.

[The information referred to follows:]

WRITTEN RESPONSE RECEIVED FROM THE HONORABLE SCOT MARCIEL TO QUESTION ASKED DURING THE HEARING BY THE HONORABLE ENI F.H. FALEOMAVAEGA

Agent Orange used by the U.S. military in Vietnam was procured over the course of many years from numerous chemical companies. The concentration of dioxin varied. In a study of one company's formulation, the concentration of dioxin in parts-per-million ranged from 32 to less than one.

Mr. FALEOMAVAEGA. I would appreciate that. I did not mean to interrupt your statement.

You are absolutely correct. We have moved now beyond the finger-pointing. I am not pointing fingers as to who did right or who did wrong, but you would think that somewhere along the line that maybe, maybe, at some point, that the Governments of the United States and Vietnam and the chemical companies responsible, that

maybe the three entities involved in this whole situation, that maybe by putting our resources together that we could probably then give some help and assistance to the people of Vietnam and not just them bearing the burden of the thousands or whatever.

I am told that at least 1 million Vietnamese were exposed to Agent Orange, Mr. Secretary, and this is not just enemy forces. These are innocent civilians, everyday life. In my own experience, living in Natrang, for all I know, we had a big military base right there in Natrang. For all I know, I might have dioxin in my own body. My brother may have died because of this, but I do not know.

I just wanted to share with you my concerns. I am tortured by this idea that we could just simply say in writing, We claim no legal responsibility, so, therefore, go fly a kite. Do you think that maybe our country is greater than this? If this is one thing that I am so proud in telling other peoples from other cultures and other countries, why our democracy is such a powerful force in the world to be reckoned with? It is because of our ability to correct our mistakes and take corrective action.

We did this against the incarceration of 110,000 Japanese-American men, women, and children whom we had incarcerated and put in process camps during World War II and completely denied them of their constitutional right. These are Americans. These are Americans who just happen to be of Japanese ancestry. We put them in concentration camps, confiscated their properties, separated families. And what we did—it took us years to come around and say, We do apologize to our fellow Americans for the wrong that we committed against them and paid $20,000, a pittance.

It is not the money, but it is the principle that we are, at least, big enough to say we did wrong, and we want to do something to compensate, at least to show that we truly are a nation that should apologize for what we did against Japanese-Americans. We did this also to the Native Hawaiians.

So I want to have some sense of positive feedback from you, Mr. Secretary, that we cannot just say, "Therefore, because we do not claim any legal liability, we have nothing to do with this." I find it very difficult to accept that.

Mr. MARCIEL. Well, Mr. Chairman, I do not think we are saying that. I think we are saying that we do not accept legal liability. However, as I mentioned earlier, we also acknowledge the Vietnamese concerns about the health and environmental impact of the use of Agent Orange, and so, without accepting legal liability—let me rephrase that.

Because we do not accept legal liability does not mean that we cannot work with the Vietnamese to address their concerns, and that is what we are trying to do, and that is what we have been doing since 2001, and now, with this $3 million from the Fiscal Year 2007 supplemental, we are working with our Vietnamese friends to try to address concerns, both on the health side and on the environmental side.

So there is a legal issue there. I have stated our position, but we are not saying—you used the term, telling them to "go fly a kite." That is not——

Mr. FALEOMAVAEGA. I want to share with you a word that I learned from my native Hawaiian cousins. It is a Hawaiian word

meaning "waha." "Waha" means all talk but no substance. Three million dollars for all of these years, and this is all our Government is willing to help in providing to take care of the health and the environmental concerns of something that the Vietnamese did not do.

Our Government did this, and I want to thank again Aspen Institute and the Ford Foundation for them volunteering, coming forward, the foundations, to even show some sense of compassion. I hope, Mr. Secretary, that somewhere along the line of the pecking order, Secretary Rice or members of the Cabinet or the President himself prick his conscience, and if you ever have the experience of going through those hospitals and seeing deformed children, not adults, children, totally innocent from any of the problems. I am torn by this, Mr. Secretary.

If we can afford constructing a $900 million Embassy in Baghdad, I am sure somewhere along the line we could find more than $3 million to help the victims, these people who were exposed to this terrible agent. For 10 years, we have been doing this to them.

I have one more question. Sorry, Mr. Secretary. I did not mean to put you on the hot seat here. I do want to personally thank Senator Leahy, the chairman of the Appropriations Senate Committee, and his top assistant, Mr. Tim Resser, who were very much instrumental in pushing for this $3 million appropriation to address the issue of Agent Orange, but we need to do more, and I want to ask for your help. Of course, 7 months from now, we might have a new President. Do you think we might have a different policy toward this issue?

Mr. MARCIEL. Mr. Chairman, I will not take the risk of trying to predict the future policy of our next President, but, if I could, I would just like to comment. I really appreciate what you are saying on this.

I think we have been working with Vietnam in the health area in a significant way. I would suggest that one issue is how much we spend specifically on issues related to Agent Orange, but there is a lot of health cooperation and assistance going on with Vietnam. The vast majority of our assistance for Vietnam, which I think is about $74 million this year, is in the health area. Some of it is HIV/AIDS and a variety of other things. So we are doing a lot in the health area.

We have done a lot, again, using money from the Leahy War Victims Fund. I think I mentioned $43 million that we have spent in Vietnam on various health issues.

Part of the trouble is, you know, there are certainly disabilities in Vietnam and birth defects. I have seen them, too, and it is really heart rending. There is not very good scientific evidence about what caused it or good links——

Mr. FALEOMAVAEGA. Not a very good scientific——

Mr. MARCIEL. There is not comprehensive scientific information about how many of those birth defects were caused by X, Y, or Z, but what we have been doing is saying, What we can do is help, and what we ought to do is help and provide assistance to people, even without scientific evidence of what exactly caused it. There is still value in the relationship and on a humanitarian basis of providing assistance, so that is what we have been doing.

Mr. FALEOMAVAEGA. Well, Mr. Secretary, I did not mean to interrupt you, but when you say that not enough scientific evidence has proven that there was presence of dioxin in this Agent Orange, the substance that we used to defoliate the forests, the jungle there in Vietnam, I thought was had moved beyond that already.

We are not going to be pointing fingers at Monsanto or Dow Chemical or toward the United States Government because, to my knowledge, I do not know of any Vietnamese agency or any evidence that we have ever found that the Vietnamese themselves used Agent Orange against our military personnel.

It is us. We are the ones that brought the agent to Vietnam. We are the ones that utilized this dangerous and deadly substance against the Vietnamese people, not just to suggest it to kill enemy forces. This was a blanket chemical that we used and which exposed also the South Vietnamese people who were supposed to be there to protect and to help and their weak government that they had at the time.

So I just want to ask your opinion, if perhaps, in a concerted effort perhaps on the part of the Vietnamese Government, our Government, and these chemical companies responsible for bringing this agent. Of course, you ask the chemical company, and they say, Do not blame us. Talk to the Department of Defense. They are the ones that contracted us to provide them with this agent. Then we go to the Federal Government, and the Federal Government says, Do not blame us because we are a sovereign entity. We cannot be sued unless we accept your lawsuit in the court.

It is fine to say that, but where, then, is our moral responsibility? I am not going to suggest that it is G.I. Joe out there. By the way, there was such an outrage from among our Vietnam veterans. They had to fight. They had to plow themselves every foot of the way, even against the Congress and the administrations, to get some benefits, and we settled for $180 million as a settlement for this issue that has been in existence now for 40 or 50 years.

So we help our military, which is fine. That is our responsibility, but the issue and the question before us, Mr. Secretary: What can we do to maybe to lighten the burden that the Government of Vietnam had to bear to provide for the health of so many of these abnormal children who became victims of this terrible substance that we had put on them? I am trying to find out if there is a way to help the Vietnamese Government.

It is nice. We do not claim any legal liability. How about our moral responsibility to society? These people are not animals; they are human beings, and I know that, in a time of war, sometimes we think, when your buddy gets killed next to you, you come with all kinds of beautiful thoughts in seeking vengeance and wanting to do harm in the worst way because that is what war brings out to anybody. We become like animals and not looking at each other as human beings, unfortunately, but that is the reality of war.

I pray to God that my children or my children's children will never have to see through what I went through or my brother or any other soldier. I think it was General MacArthur who said that the persons who hate war the most are our soldiers. What we try to do is to prevent war, as much as possible. I am sorry to say that I think we have failed that on several occasions.

Mr. Secretary, thank you so much for coming. Let us see if my good friend from Illinois has any questions. Thank you.

Mr. MANZULLO. Thank you, Chairman. When we worked on the Gulf War Syndrome Bill, essentially what we did was we changed the presumption so that if men or women in uniform were within a certain geographical area, and that person developed certain types of physical maladies, that the presumption would be an exposure that would be compensable.

Now, I note that there are two different standards for eligibility. One is for health coverage, health benefits, which, I realize, is much broader in the military, and the other is for disability compensation. As to the latter, there is a list of certain maladies. I realize this is a very technical question, but it actually goes to the fairness of the compensation that the men and women in uniform who claim exposure are entitled.

Have you ever discussed the fact that there is a different standard for health coverage, as opposed to disability, for men and women in uniform who claim to have been exposed to Agent Orange in Vietnam?

Mr. MARCIEL. So you are referring to the U.S. military?

Mr. MANZULLO. That is correct.

Mr. MARCIEL. Congressman, I have not, and I do not want to sound evasive here, but——

Mr. MANZULLO. It is a technical question.

Mr. MARCIEL. Just on the State Department's side, we cover the part of the relationship with Vietnam, but I think it is the Veterans Administration. I just do not know, is the short answer. I do not know because we do not deal with the U.S. veterans' piece of this. That is done, I think, by the Veterans Administration.

Mr. MANZULLO. Okay. The reason I raised that is that that might be a good bridge because the VA has recognized that exposure could result in health care benefits, but it could also result in disability benefits, and that, to me, evidences some type of recognition that exposure to Agent Orange is harmful, and, therefore, it could go to vitiate the statement that I realize the government has to make, that it is not responsible for the exposure.

I bring that out because you are involved in some very delicate talks, and I know there has been a lot of frustration on exactly where to go with this issue. My only comment, at this point, is that perhaps State and VA ought to work together to make sure, at least, that our men and women in uniform who were exposed might, if the circumstances are there, have a little bit easier time going on disability than they are now. That is just a suggestion, and I do not expect a response from that because I know that is out of your area. But what do you think about something like that?

Mr. MARCIEL. Well, thank you, Congressman Manzullo. We are certainly willing to look at it. I do not have a good answer for you right away.

If I could, I would like to comment on what you said about responsibility. As I have said several times, we do not accept legal liability, but we do see great value for the relationship and on humanitarian terms of working with our Vietnamese counterparts to try to address their concerns.

So when I say we do not accept legal liability, that does not mean that we are not willing or interested in working with the Vietnamese on this issue, which is why we have these programs moving ahead, and I hope it is something that we can build on and do more.

I am not allowed, of course, to come up and ask for more money, so I would not do that, but we certainly would——

Mr. MANZULLO. If you do not have enough money, you can say so. That is not asking for more. Isn't that right, Chairman?

Mr. FALEOMAVAEGA. Absolutely. Twelve billion dollars a month in the Iraq War. That is not a drop in the bucket: $434 million a day we are spending on the war in Iraq.

Mr. MARCIEL. We are moving ahead with these programs on both the health side and the environmental side as well. So we are working with the Vietnamese on this. It has taken a while from the end of the war. There were some difficult discussions a decade or so ago, but it is evolving, and we are pleased that we are able to work with the Vietnamese on this now.

Mr. MANZULLO. Thank you.

Mr. FALEOMAVAEGA. Mr. Secretary, you have answered my question. Let us not call it a "legal liability." I like "humanitarian assistance." We just approved a $50 billion authorization to help HIV/AIDS, malaria, and these other illnesses around the world, $50 billion in authorization funding. So let us not call it a "legal liability." Let us not get into this legalese. I realize, as a member of the diplomatic corps, we have some very nice terms that you want to use, but I like "humanitarian," and I also believe in burden sharing.

I do not think the Vietnamese Government wants us to bear the entire burden of making some sense of addressing a redress in helping them, but I believe that maybe we could be part of it. More hands lift the weight a little lighter. Maybe on the part of our Government and on the part of friendly chemical companies and the Vietnamese Government, I think if we all work together, then, on a humanitarian basis, not just $3 million. What can you possibly do with $3 million, Mr. Secretary, to help a very, very serious situation that we are in dealing with this?

I noted with interest, yes, we still have about 627 POWs missing in action in Vietnam, but I do not know if many Americans realize that 30,000 of our soldiers who died in World War II are still unaccounted for, to this day. I must commend the Government of Vietnam that they are making every effort to look for the remains of our 627 soldiers that have not been found.

I realize that this is a very sensitive issue, a very sensitive issue in the minds of many of our veterans who would even want to discuss, many of my relatives. Some of my relatives have died as a result of serving in Vietnam in the military.

In 1967 and 1966, or national media, our national leaders portrayed Ho Chi Minh as the most evil person that ever lived on this planet: A die-hard Communist, hater of Americans. Over the years, as I started reading more and more books about this man, all he was trying to do was to get rid of French colonialism that existed there for 100 years before we even came into the picture.

How many Americans knew about this, in terms of the complexity of the situation that we found ourselves in in Southeast Asia? It was not just to contain Communism. The British were colonizing China and Burma. The Dutch were colonizing Indonesia. The French, in Vietnam and Laos and Cambodia.

So I get into debates with some of my colleagues, why is it that many of the Asian leaders ended up becoming Marxists and socialists? Because the worst examples of freedom and democracy, Mr. Secretary, are our European allies who went to Asia and colonized these countries and gave them the worst example of what freedom and democracy meant.

If we look at the Battle of Diem Biem Phu in 1954, when President DeGaulle pleaded with President Eisenhower to send troops to help France to continue their colonization policy of Vietnam, that is a fact. Not many Americans knew about this.

So I just wanted to share with you my trying to understand a little more. The Vietnamese did not attack our country. We went there, chose the war as a matter of choice against the people and an ideology or a doctrine that we believe that if Vietnam falls into Communist hands, the rest of the world will become Communist. Well, guess what? Vietnam is still a Communist country. They are getting into a free-market similar to Communist China, who, by the way, exported over $340 billion worth of goods to the United States last year because of the consumer demand in our own markets here in the United States.

I do not mean to give you a lecture on this, Mr. Secretary, but can we forever delete this word "legal" terminology and just say, "Why do not we look at it from a humanitarian point of view, and then we can work together with the Vietnamese Government?" and I hope to God to prick the consciousness of the top executives of these chemical companies for a second, just for a moment, that if they did this knowingly that there was the presence of dioxin in Agent Orange, that is unconscionable. That is unethical.

I do not know what to say. If you were a businessman, would be willing to do this knowingly that it is costing the lives of people years later, and, to this day, it is still going on?

Mr. Secretary, I do not mean to badger you this morning. You have been such a patient and good witness for the administration, but I do want to thank you sincerely for coming and to share with us the views of the administration concerning this issue. All of my brothers and sisters who served in the Vietnam War, if they hear the presence of my voice, there is a program for our Vietnam veterans of the Agent Orange.

I did not even know this until recent years, that they should seek consultations with the Veterans Administration, that they can get assistance. I wish I could say the same, if we could do for our friends in Vietnam, but that is another subject for another date. Thank you, Mr. Secretary.

Mr. MARCIEL. Thank you, Mr. Chairman.

Mr. FALEOMAVAEGA. For our next panel, we have got some very distinguished guests here with us. For Panel Number 2 is Dr. Nguyen Thi Ngoc Phuong. She is the director general of the Ngoc Tam Hospital in Ho Chi Minh City in Vietnam. She traveled all the way from Vietnam. Thank you so much for coming, Dr. Nguyen.

Also, Ms. Catharin Dalpino, the associate professor of Southeast Asian studies, the Edmund A. Walsh School of Foreign Affairs at Georgetown University. Thank you for coming, ma'am. She is currently also the director of the Aspen Institute Project on Agent Orange.

Dr. Vaughan Turekian, the chief international officer of the American Association for the Advancement of Science, a member of the U.S.-Vietnam Dialogue Group on Agent Orange/dioxin.

Mr. Rick Weidman, the executive director for policy and government affairs, Vietnam Veterans of America.

Also, Ms. Jeanne Mirer, the secretary general for the International Association of Democratic Lawyers.

Do we also have Dr. Arnold Schecter here with us?

I just want to, for the record, share with also my colleagues, Dr. Nguyen graduated with a Doctor of Medicine degree in 1970 from the Saigon Medical University. She specialized in obstetrics and gynecology at the Saigon Medical University and a whole host of certifications and experience that she has had, and I look forward to hearing from her this morning.

We also have, as I have said earlier, Ms. Catharin Dalpino. Ms. Dalpino currently serves as director of the Aspen Institute's Advocacy Program on Agent Orange/Dioxin. Professor Dalpino also served as deputy assistant secretary during the Clinton administration, and is also a former member of the Brookings Institution, as well as with the Carnegie Endowment for International Peace. For 10 years, she also served as a senior staff member of the Carnegie Endowment, the Asia Foundation. She also has worked extensively in Thailand, Laos, and Cambodia in the 1980s. Before joining the Foundation, she was a policy analyst as well in the World Bank.

Dr. Vaughan Turekian is with us. This gentleman's resumé is so thick, I do not have enough pages to add onto, but I certainly want to welcome him as the chief, International Office of the American Association for the Advancement of Science. He formerly served as special assistant to the under secretary of state for democracy and global affairs in the year 2001.

He was the study director of the White House-requested NAS report on climate change. Dr. Turekian also holds a doctorate in atmospheric geochemistry—I have no idea what that is—from the University of Virginia, studying stable isotopic tracers to characterize aerosol sources—okay, aerosol—that is something to do with the air—chemistry and marine boundary layer. He is a graduate of Yale University with degrees in geology and geophysics and international studies.

Mr. Richard Weidman currently is on the national staff of the Vietnam Veterans of America. He is the primary spokesman for the Vietnam Veterans Association here in Washington, DC. He is very familiar with the issue that we are discussing this morning. Mr. Weidman is an administrator at Johnson State College in the State of Vermont. He attended Colgate University in the 1960s and is a graduate of the University of Vermont. Thank you, Mr. Weidman, for coming.

And also Ms. Jeanne Mirer, who is a 1971 graduate of Boston University Law School. She is currently a partner in a law firm in

New York, the Firm of Eisner & Mirer, specializing in labor and international law. She is currently secretary general of the International Association of Democratic Lawyers, which was founded in 1946, composed of over 90 countries.

She is with the Vietnamese Lawyers Association. Ms. Mirer was involved in the lawsuit on behalf of the Vietnam Association for the Victims of Agent Orange, and she has worked extensively with the Vietnam Agent Orange Relief and Responsibility Campaign.

Mr. Weidman, can we just kind of go right down the line? I have a stop clock here that helps us so that we can get a real sense of order here in our hearing this morning. Do not be mistaken by the fact that Members of the subcommittee are not here, because this is how we operate. But one thing is for sure: We do have a record, and that is the most important thing I am trying to build here, and I want you to know how much I really appreciate your making the effort to come and testify before this subcommittee, especially Dr. Nguyen for coming all the way from Vietnam to share with us some of her experiences in having to deal with this issue this morning.

So 5 minutes is usually given, but, to you, Dr. Nguyen, we will give you a little extra time because you have traveled so far. I just do not have the heart to cut you off after 5 minutes of testimony, but I am sure it is going to be very substantive and that it will definitely be a help in getting the Members of this subcommittee to know more about the situation here. Some people may think that this issue is a dead issue. I certainly do not think so, especially when the lives of people are affected by this to this day.

Dr. Nguyen, please proceed.

STATEMENT OF NGUYEN THI NGOC PHUONG, M.D., DIRECTOR GENERAL, NGOC TAM HOSPITAL, HO CHI MINH CITY, VIETNAM, FORMER VICE SPEAKER OF THE VIETNAM NATIONAL ASSEMBLY (MEMBER OF THE U.S.-VIETNAM DIALOGUE GROUP ON AGENT ORANGE/DIOXIN)

Dr. NGUYEN. Thank you. Honorable Chairman Faleomavaega, Congress Members, ladies and gentlemen, first of all, I would like to extend my sincere thanks to Chairman Faleomavaega and the subcommittee for organizing this——

Mr. FALEOMAVAEGA. Doctor, can you kind of put the mike just a little closer so that everybody can hear? I am a little deaf of hearing these days. I get a little older, I guess. Thank you.

Dr. NGUYEN. Thank you. Honorable Chairman Faleomavaega, Congress Members, ladies and gentlemen, first of all, I would like to extend my sincere thanks to Chairman Faleomavaega and the subcommittee for organizing this hearing on "Our Forgotten Responsibility: What Can We Do To Help Victims of Agent Orange?"

I am pleased to have this opportunity to discuss the legacy of Agent Orange dioxin and how we can work together for the victims in general and in Vietnam.

I am testifying in my capacity as a medical doctor who has been working for nearly 40 years in a big obstetrics and gynecology hospital in Ho Chi Minh City, which is a hospital where more than 45,000 babies are born a year. Among them, about 2 percent are deformed.

Forty years ago, when I was an intern, I delivered for the first time in my life a severely deformed baby. It had no brain, no limbs. It was too horrible for me. I was nauseous, vomiting, shaking. How was the scared young mother? She was in shock when she saw her baby. Then she cried for many hours, many days. She thought that she had committed some unforgivable mistake and was being punished by God. You can imagine how much she suffered.

Since then, every day or two, I have witnessed such birth defects and mother sufferings, but, for many years, I did not know what caused these tragic events.

After 1975, many American Vietnam veterans came to Ho Chi Minh Hospital and asked about birth defects and cancers related to toxic chemicals spread over the southern part of Vietnam during wartime. I began looking for documents written on the spraying of toxic chemicals and happened to run across a report about this subject published by the U.S. National Academy of Sciences in 1974. Only then did I realize that the deformed babies I delivered might have a casual relationship to the toxic chemicals spread repeatedly over my country on a large scale for more than 10 years.

With my colleagues, I started to study the problem. The spraying of Agent Orange and other toxic chemicals covered not only land and mangrove forests but also croplands and people in villages. More than 20 million gallons of toxic chemicals containing more than 366 kilograms of dioxin were spread over the land and people of Vietnam. Only one-billionth of a gram of dioxin can cause cancers, birth defects, miscarriages.

Dioxin is the most toxic, man-made chemical substance in terms of its effects on human beings. The spraying of these toxic chemicals destroyed the environment and biodiversity, causing annual natural catastrophes such as flooding. It is a cruel destroyer of all life in my country.

Why the suffering caused by Agent Orange is widespread, I would like to tell you, primarily, about the effects on the health of exposed people among whom are my patients. Many studies published in international scientific journals, such as Chemosphere in the U.K., the Journal of the American Public Health Association, and documents of the Annual International Dioxin Conference have established a link between Agent Orange/dioxin and cancerous abnormal pregnancy outcomes, such as miscarriages, fetal death, and uteral neonatal death, birth defects, et cetera.

Recently, a joint Vietnamese-Japanese study on 47,000 veterans in Vietnam showed that the percentage of reproductive problems, birth effects and some other diseases is higher in Agent Orange/dioxin victims than in the nonexposed group.

In 1983, during the first International Conference on the Long-term Consequences of Herbicides and Defoliants Used in Vietnam During Wartime on Nature and Human Health held in Ho Chi Minh City, scientists from 22 countries, including the United States, recognized that the incidence of five categories of birth defects is abnormally high in Vietnam, as compared with the other countries in the region and in the world.

In 1970, the breast milk of mothers living in sprayed areas analyzed by biochemists in the U.S. had more than 1,500 grams of dioxin, thousands of times higher than that in the United States,

Japan, Canada, and the standard level allowed by WHO. Breast milk analyses done by laboratories in Canada and Germany still show a very high level of dioxin. Because of this, victims are increasingly millions of innocent, newborn babies, breast fed by their exposed mothers.

The half-life of dioxin in the human body is much longer than in the environment, so dioxin may exert its effects over many generations of Vietnamese people. The analysis of human fatty tissues of people exposed to Agent Orange in Vietnam always indicates high dioxin levels. Dioxin found in their bodies is 2, 3, 7, 8 PeCDD, the form of dioxin that exists only in Agent Orange and in other agents like Agent Green, et cetera.

Recently, in and around at least three "hot spots" which are former U.S. air bases and where the toxic agents were stored, we discovered that dioxin remains at dangerously high levels and continues to contaminate the environment and local food sources, continuing to cause harmful effects on human health.

Susan Berresford, former president of the Ford Foundation, convener of the U.S.-Vietnam Dialogue Group on Agent Orange/Dioxin, has recognized a worryingly high number of birth defects, cancers, and other diseases have now been seen in American veterans and their families, as well as in many Vietnamese veterans, civilians, their offspring, and those now living in the affected areas.

Admiral Zumwalt, who was an American Vietnam veteran, died of cancer and whose grandson was born with birth defects, after analyzing many studies on Agent Orange/dioxin, made a statement before the Subcommittee of Human Resources of the U.S. Congress in June 1996 saying that the unique, right decision that the Members of the U.S. Congress can make is to recognize that Agent Orange/dioxin can cause a wide range of diseases, illnesses, and birth defects, so that the American Vietnam veterans should be correctly compensated.

In 1985, the American Vietnam Veterans' lawsuit against the chemical companies that produce Agent Orange was settled out of court for US$180 million. The U.S. Government has also been making payments to the American Vietnam veterans and their offspring for 13 diseases and defects recognized as the consequences of dioxin exposure during the period of time they served in Vietnam. But despite the expenditure of billions of dollars, there is not enough being done to alleviate their suffering, and we support the struggle to achieve justice.

Ladies and gentlemen, victims of Agent Orange and dioxin in Vietnam are the most heavily exposed to dioxin in the world. Commensurately, their suffering is also the most severe. Victims and their families face extremely difficult living conditions due to their illnesses and birth defects, consequences of Agent Orange/dioxin exposure.

The Vietnamese Government, people, and, particularly, the Vietnam Association for Victims of Agent Orange/dioxin and other NGOs in Vietnam, have done a lot to support those affected materially and morally, but due to our limited financial resources, we cannot fully meet their needs as much as we hope to. The victims who suffer from cancers are dying every day. They cannot wait any longer for justice.

Since 2002, the U.S. Government has started to recognize the severity of the problem and to assist our cleanup efforts with several million U.S. dollars. Some NGOs, like the Ford Foundation, and the U.S. veterans groups are partnering in the cleanup efforts and in helping the victims. We highly appreciate their assistance; however, they, too, have limited resources.

Therefore, I would like to propose that you and your colleagues in the U.S. Congress continue the efforts of the United States NGOs and veterans in acting specifically to heal the wounds of war for Vietnamese, the more than 4 million Agent Orange/dioxin victims, by doing the following: Allocate sufficient funds for the urgent environmental remediation of "hot spots" where the U.S. Air Force stored toxic chemicals, as well as for helping victims of Agent Orange/dioxin and their families to receive appropriate health care, rehabilitation, education, vocational training, and job creation and social services to meet their needs.

Require the chemical companies who manufactured Agent Orange to recognize their responsibility. The American Public Health Association, in its 2007 policy statement on Agent Orange, recognized that it is the responsibility of the U.S. Government and chemical companies to alleviate the harm caused by their use of Agent Orange/dioxin and recommending that the U.S. Government and involved chemical companies provide the resources for the disabled, provide medical and nursing services for those harmed by Agent Orange, develop community support organizations, including health care and educational and chronic care services, for American and Vietnamese people harmed and attempt to clean up those areas in Vietnam that still contain high levels of dioxin.

I hope that this very first hearing on Agent Orange, convened by the Subcommittee on Asia, the Pacific, and the Global Environment, will provide the U.S. Congress and the United States public with a better understanding of the severity of the suffering facing the victims of Agent Orange/dioxin, as well as the entire Vietnamese people.

Support from the Congress for swift and effective actions to help victims of Agent Orange/dioxin are of crucial importance in building a mutual understanding between our two countries. It will usher in a new chapter of peace and solidarity between the peoples of our two countries. Thank you for your attention.

[The prepared statement of Dr. Nguyen follows:]

Statement at the Public Hearing of the Subcommittee on Asia, the Pacific and the Global Environment – House Foreign Affairs Committee by Dr. Nguyen Thi Ngoc Phuong, Head of Women's Health Department, Ho Chi City Medical University

"Our forgotten responsibility:
What can we do for the victims of Agent Orange"

The Honorable Chairman Faleomavaega, Congress members, Ladies and Gentlemen,

First of all, I would like to extend my sincere thanks to Chairman Falcomavaega and the Subcommittee for organizing this Hearing on "**Our forgotten responsibility: What can we do for the victims of Agent Orange.**" I am pleased to have this opportunity to discuss the legacy of Agent Orange/Dioxin and how we can work together for the victims, in general and in Viet Nam.

I am testifying in my capacity as a medical doctor who has been working for nearly 40 years in a big obstetrics-gynecology hospital in Ho Chi Minh City – Tu Du hospital – where more than 45,000 babies are born a year – among them, about 2 % who are deformed.
Forty years ago, when I was an intern, I delivered for the first time in my life, a severely deformed baby – it had no brain and limbs. It was horrible for me, I was nauseas, vomiting and shaking. And how was the scared young mother? She was in shock when she saw her baby. Then she cried for many hours; many days. She thought she had committed some unforgivable mistake and was being punished by God. You can imagine how much she suffered!
Since then, every day or two, I have witnessed such birth defects and mother's sufferings. But, for many years, I didn't know what caused these tragic events.

After 1975, many American Vietnam Veterans came to Tu Du hospital and asked about birth defects and cancers related to toxic chemicals sprayed over the Southern part of Viet Nam during wartime. I began looking for documents written on the spraying of toxic chemicals and happened to run across a report about this subject published by the US National Academy of Sciences in 1974.

Only then, did I realize that the deformed babies I delivered might have a causal relationship to the toxic chemicals that the US Air Forces repeatedly sprayed over my

country – on a large scale – for more than 10 years! With my colleagues, I started to study the problem.

The spraying of Agent Orange and other toxic chemicals covered not only inland and mangrove forests, but also crop lands and people in villages!

More than 20 million gallons of toxic chemicals containing more than 366 kg of Dioxin were sprayed over the land and people of Viet Nam. Only one billionth of a gram of Dioxin can cause cancers, birth defects, miscarriages, etc. Dioxin is the most toxic man-made chemical substance in terms of its effect on human-beings. The spraying of these toxic agents (Agent Orange, Blue, White, Purple, Green, Pink, etc.) destroys the environment, and biodiversity, causing annual natural casualties such as flooding. It is a cruel destroyer of all life in my country.

While the suffering caused by Agent Orange is widespread, I would like to tell you primarily about the effects on the health of exposed people, among whom are my patients.

Many studies published in international scientific journals such as Chemosphere (UK), Journal of the American Public Health Association and documents of the annual international Dioxin Conference have established a link between Agent Orange/Dioxin and cancers, abnormal pregnancy outcomes such as miscarriages, fetal death in-utero, neonatal death, birth defects, etc.

Recently, a joint Vietnamese- Japanese study on 47,000 veterans showed that the percentage of reproductive problems, birth defects and some other diseases is higher in the Agent Orange/Dioxin victims than in the non-exposed group.

In 1983, during the first international conference on "long term consequences of Herbicides and Defoliants used in Viet Nam during the wartime on Nature and Human Health" held in Ho Chi Minh city, scientists from 22 countries, including the US, recognized that the incidence of 5 categories of birth defects is abnormally high in Viet Nam as compared with the other countries in the world and in the region.

In 1970, the breast milk of mothers living in sprayed areas, analyzed by biochemists in the US, had more than 1500 picrograms of dioxin, many thousands of times higher than that in the US, Japan, Canada and the standard level allowed by WHO. Breast milk analysis done by laboratories in Canada and Germany still shows a very high dioxin level.

Because of this, victims are increasingly millions of innocent newborn babies breastfed by their exposed mothers. The half-life of dioxin in the human body is much longer than in the environment. So, dioxin may exert its effects over many generations of Vietnamese people!

The analysis of human fatty tissues of people exposed to Agent Orange in Viet Nam always indicates high dioxin levels. The dioxin found in their bodies is 2,3,7,8 tetrachloro-dibenzo para dioxin – the form of dioxin that exists **only** in Agent Orange (and other agents like Agent Green, etc.)

Recently, in and around at least 3 hot spots which are former US Air Bases and where the toxic agents were stored, we discovered that dioxin remains at dangerously high levels and continues to contaminate the environment and local food sources, continuing to cause harmful effects on human health.

Susan Berresford, former President of the Ford Foundation, Convener of the US – Viet Nam dialogue group on Agent Orange/Dioxin, has recognized: "A worryingly high number of birth defects, cancers and other diseases have now been seen in American veterans and their families, as well as in many Vietnamese veterans, civilians, their offspring and those now living in the affected areas."

Admiral Zumwalt, whose son, an American Vietnam Veteran, died of cancers and whose grandson was born with birth defects, after analyzing many studies on Agent Orange/Dioxin, made a statement before the Subcommittee of Human Resources of the US Congress in June 1996 saying that "the unique right decision the members of the US Congress can make is to recognize that Agent Orange/Dioxin can cause a wide range of diseases, illnesses and birth defects. So that, the American Vietnam Veterans should be correctly compensated"

And, in 1985, the American Vietnam Veteran's lawsuit against the chemical companies that produced Agent Orange was settled out of court for 180 million USD.

The US government has also been making payments to the American Vietnam Veterans and their offspring for 13 diseases and defects recognized as consequences of dioxin exposure during the period of time they served in Viet Nam. But, despite the expenditure of billions of dollars, there is not enough being done to alleviate their suffering and we support their struggle to achieve justice!

Ladies and Gentlemen,
Victims of Agent Orange/Dioxin in Vietnam are the most heavily exposed to dioxin in the world. Commensurately, their suffering is also the most severe. The victims and their families face extremely difficult living conditions due to their illnesses and birth defects – consequences of Agent Orange/Dioxin exposure. The Vietnamese government, people, and particularly, the Vietnam Association for Victims of Agent Orange/Dioxin, and other NGOs in Viet Nam have done a lot to support those affected, materially and morally. But, due to our limited financial resources, we can not fully meet their needs, much as we hope to. The victims who suffer from cancers are dying every day. They can not wait any longer for justice!

Since 2002, the US government has started to recognize the severity of the problem and to assist our clean up efforts with some millions USD.

Some NGOs like the Ford Foundation and US veterans' groups are pioneering in the clean up efforts and in helping the victims. We highly appreciate their assistance. However, they, too, have limited resources.

Therefore, I would like to propose that you and your colleagues in the Congress continue the efforts of the US NGOs and veterans in acting decisively to heal the wounds of war for Vietnam's more than 3 million Agent Orange victims by doing the following:

- Allocate sufficient funds for the urgent environmental remediation of hot spots where the US Air Forces stored toxic chemicals as well as for helping victims of Agent Orange/Dioxin and their families to receive appropriate health care, rehabilitation, education, vocational training and job creation and social services to meet their needs.
- Require the chemical companies who manufactured Agent Orange to recognize their responsibility.

The American Public Health Association in its 2007 policy statement on Agent Orange recognized the responsibility of the US government and chemical companies to alleviate the harm caused by their use of Agent Orange/dioxin in recommending that,

> "...the US government and involved chemical companies provide resources for the disabled…provide medical and nursing services for those harmed by Agent Orange; develop community support organizations, including health care and educational and chronic care services… for American and Vietnamese people

harmed…[and] remediate or attempt to clean up those areas of in Vietnam that still contain high levels of dioxin." (APHA Policy # 20075)

I hope that this very first hearing on Agent Orange convened by the subcommittee on Asia, the Pacific and the Global Environment will provide the US Congress and the US public with a better understanding of the severity of the suffering facing the victims of Agent Orange/Dioxin as well as the entire Vietnamese people. Support from the Congress for swift and effective actions to help victims of Agent Orange/Dioxin are of crucial importance in building mutual understanding between our two countries. It will usher in a new chapter of peace and solidarity between the peoples of our two countries.

Thank you for your attention.

Nguyen Thi Ngoc Phuong, M.D.

Professor Nguyen Thi Ngoc Phuong, MD.
Director General, Ngoc Tam Hospital
(Ho Chi Minh City, Viet Nam)
10h00 a.m May 15, 2008 Hearing
House Committee on Foreign Affairs, Subcommittee on Asia, the Pacific, and the Global Environment

Dear Mr. Chairman,

I am pleased to accept your invitation to testify today about the consequences of Agent Orange/dioxin in Viet Nam War and activities for overcoming.

Scope of the a Agent Orange/dioxin war in Viet Nam

According to various materials (publications), during the Ranch Hand and Pacer Ivy operations, the US military sprayed about 80 million litres of herbicides in Southern Viet Nam the main one being Agent Orange that contained dioxin [1-5].

US aircrafts sprayed herbicides over forest and crop fields in South Viet Nam (US.DOD)

The total amount of dioxin found in the above herbicides was at least 366 kg[3] . Scientists are of the opinion that due to production technology 2,4,5 T during the 1960s and the need to increase the quantity of the herbicides. However, the US chemical companies in increasing the output of the herbicides also increased the quantity of dioxin to approx 600 - 680 kg [6, 7]. It should be noted that in tests on animals, just one billionth of a gram of dioxin caused cancer, reproduction problems, and birth defects. [8].

Scientists worldwide have confirmed in their studies that dioxin is the most dangerous poison yet known and is a cause of reproduction problems, birth defects, cancer and some other diseases [3, 8-14].

From 1962 to 1971, the US military conducted 19,905 spraying missions of agent orange/dioxin over an area of 2,631,297 ha (86% of which was sprayed more than twice; 11% of which was sprayed more than 10 times. 25,585 hamlets were also sprayed with herbicides) [3].

Due to rain, winds and floods, the area of land and forests affected by Agent Oranges/dioxin became larger than the actual area sprayed [8, 15].

Human consequences of Agent Orange/dioxin

There have been many scientific researches by Vietnamese scientists in coordination with scientists from Japan, Germany, Russia, Canada and the US claiming that: The concentration of dioxin in blood, fat and milk of those with exposed to Agent Orange/dioxin is high and very high, particularly in some people living close to the places with a high concentration of dioxin.

2,3,7,8 TCDD and 1,2,3,7,8 PeCDD represent a high and very high percentage of dioxin components, confirming that dioxin in those people originates from herbicides used by the US during the war in Viet Nam [20, 21, 25]

Vietnamese and Japanese scientists have conducted epidemiology researches that included research on 47,000 veterans with and without exposure to Agent Orange/dioxin. Results have shown that dioxin caused diseases observed in victims in Viet Nam are the same as those recognized by Medical Academy of the US. In addition, the percentage of reproduction problems, birth defects and some other diseases is higher in the Agent Orange/dioxin victims than in those without exposure. The IQ index of children from 6 to 9 years old is much lower in areas contaminated by dioxin than in other places [26].

Structure, percentage and extent of diseases are much higher among Agent Orange/dioxin victims in Vietnam than Agent Orange/dioxin victims from the US, New Zealand, South Korea etc because the victims in Viet Nam have been more exposed to Agent Orange/dioxin for a longer time (for many years) in a difficult living conditions due to the war [8, 15, 26, 27].

The co-joined twins Viet-Duc born in 1982 at Sa Thay, Kontum, where Agent Orange/dioxin was sprayed. Their mother still has high level of dioxin in her body. Photo by Goro Nakamura

No	Research content	With exposure (people)	Without exposure (people)
1	Total veteran families under the research	28,817	19,076
2	Number (percentage) of families with birth defect children	1,604 (5.69%)	356 (1.87%)
3	Total number of children	77,816	61,043
4	Number (percentage) of birth defect children	2,296 (2.95%)	452 (0.74%)

Vietnamese scientists have studied and discovered biological changes in people with exposed to Agent Orange/dioxin, especially signs of immunodeficiency, change in chromosome and gene including gene causing cancer [28, 29].

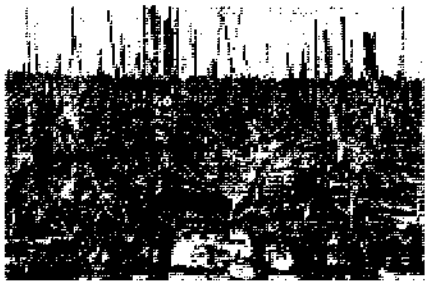
Consequences of Agent Orange/dioxin on natural resources and the environment

According to the Forest Inventory and Planning Institute, the area of forests sprayed by herbicides and the quantity of timber lost due to presence of Agent Orange/dioxin are 2,954,000ha (95.2%), approximately 90,330,000m^3 for inland forests, and 150,000ha (48%), approximately 22,500,000m^3 for mangroves [16, 17].

The function of water retaining and flood control of forests has been reduced; the soil of the areas sprayed with herbicides have become poor in nutrient, and the socio-economic conditions adversely affected [17-19].

In addition the species of seafood has been reduced, biodiversity has deteriorated and thus become poor. Some rare faunal and floral species have become extinct while the number of rodents has increased and areas of wild grasses have developed [17-19].

At present, in some areas where Agent Orange/dioxin was stored, and loaded into planes etc at Bien Hoa, Phu Cat and Da Nang airports, the concentration of dioxin is still at a very high level, hundreds of times higher than the permissible level for non-agricultural soil of the US Environmental Protection Agency (USEPA) being 1000 ppt [20, 21]. The concentration of dioxin in mud and some aquatic faunal species in some lakes near these areas is about 5 - 20 times higher than the permissible level [13, 20].



A kid and mangrove at Ca Mau after spraying. Photo by Goro Nakamura, 1976

The scope and level of contamination by Agent Orange/dioxin is still to be determined in some areas known to be polluted with Agent Orange/dioxin due to the Pacer Ivy operation at Da Nang and Bien Hoa airports and some other airports. The position of seven aircrafts that crashed containing Agent Orange/dioxin has also still to be determined yet [4].

In some of the sprayed areas, the concentration of dioxin has reduced to the permissible level, thus no longer affecting the people and the environment [22-24].

Supporting the victims

Over the past 30 years, the government and people of Viet Nam have always supported the victims of Agent Orange/dioxin in Viet Nam. At the present time over 200,000 Agent Orange/dioxin victims receive a monthly allowance from the government that has allocated a budget of about 50 million USD [30].

In addition, the government of Viet Nam has encouraged and created favorable conditions in expenditure for NGOs such as Agent Orange Victims Fund, Agent Orange Victims Association to assist over 1 million other victims in health care, life improvement and generating work employment.

Thousands of victims, particularly children with birth defects have been cared, nurtured and treated in Hoa Binh village, Vietnam Friendship village and Centers of the disabled children throughout the country.

Yet, the above support activities only meet a small part of a very large and long-term demand of Agent Orange/dioxin victims.

Treatment of Agent Orange/dioxin contaminated areas and environmental restoration

In the 1990s, the Ministry of Defence of Viet Nam built carried out some construction works to control the spreading of dioxin in Da Nang, Bien Hoa and Phu Cat airports. The Ministry of Defence is also conducting a project isolating and landfilling an area heavily contaminated by dioxin in Bien Hoa airport. With the total budget of 75 billion Vietnamese Dong (5 million

USD), this project can only deal with a part of the dioxin contaminated area in Bien Hoa airport.

In 2007, with the sponsorship of Ford Foundation and partial technical support from USEPA, the Ministry of Defence of Viet Nam has carried out projects preventing the spreading of dioxin from heavily contaminated area in Da Nang airport, and controlling the consequences of dioxin on the environment and people living near the airport.

Viet Nam has been implementing the mangrove-planting project to rehabilitate forests destroyed by herbicides/dioxin.

The international relations in research and overcoming consequences of Agent Orange/dioxin

President Nguyen Minh Triet and President George Bush in Washington DC, June, 2007. (Viet Nam News Agency)

Some foreign organizations and individuals have been cooperating with Viet Nam in research and overcoming of the consequences of Agent Orange/dioxin. Viet Nam highly appreciates the support in developing the UNDP project on the treatment of Agent Orange/dioxin contamination in heavily polluted areas, and their concern for disabled children – victims of Agent Orange/dioxin - from UNICEF, humanitarian activities of some organizations and individuals from Japan, Germany, Norway, England, and the United States.. Some scientific research works on the adverse impacts of agent orange/dioxin on the environment and people of Viet Nam have been conducted by scientists from Japan, Germany, Canada, and Russia in cooperation with the Vietnamese scientists. Some Peace, Friendship villages have been built to provide care for Agent Orange/dioxin victims in Viet Nam funded by the Düsseldorf Peace Village and Veteran Associations of Germany, South Korea.

Cooperation between the governments of Viet Nam and the US in research and overcoming of consequences of Agent Orange/dioxin began in 2000 following the visit to Viet Nam by President Bill Clinton. The results, over the past years, have been shown through some small scaled activities, namely cooperation in organizing scientific seminars; helping Viet Nam with a dioxin analysis equipment already used; training of some young staff; sampling in Da Nang for dioxin analysis; providing budget of 400,000 USD for USEPA and BEM to research measures for dioxin treatment in Da Nang.

The joint declaration of the two heads of state of Viet Nam and the US during the visit by the US President Bush in November 2006 noted the support from the US in dioxin treatment at Da Nang airport and for the disabled in Viet Nam.

In June 2007, at the reception of President Nguyen Minh Triet in Washington, President Bush made a commitment to fund 3 million USD in the foreign affair fiscal year of 2007 for the treatment of dioxin contamination in Da Nang airport and assistance of people exposed to this

toxin. However, so far, following many requests from the concerned agencies of Viet Nam, the US side has not yet had discussion in detail on the use of this amount.

In recent years, some NGOs from the US have supported Viet Nam in research and in overcoming the consequences of Agent Orange/dioxin. The Vietnamese side has highly appreciated the willingness and activities of the Ford Foundation, Viet Nam Veteran American Fund (VVAF) and some American friends in supporting Viet Nam in overcoming of the consequences of Agent Orange/dioxin.

The government and people of Viet Nam would always appraise cooperation and assistance of organizations and individuals in the world in overcoming of Agent Orange/dioxin.

Conclusions

The Agent Orange/dioxin war by the US in Viet Nam was the largest use of chemicals in humankind history. Many Vietnamese and foreign scientists, including some US scientists, have carried out research and confirmed the severe consequences of Agent Orange/dioxin left for the environment and many human generations in Viet Nam. As concerned persons, we must understand the sufferings shouldered by the victims of Agent Orange/dioxin. This is a great worry for conscientious and responsible people.

Despite post-war difficulties, the government and people of Viet Nam have made efforts to organize various activities to research and overcome the consequences of Agent Orange/dioxin but have only partially met the very high and complex demand for overcoming the consequences. Dioxin contamination areas should be thoroughly treated soon; Agent Orange/dioxin victims need care and treatment; their spiritual and material life need to be improved.

The government of the US should be responsible for assisting Viet Nam in overcoming the consequences of Agent Orange/dioxin on a much larger scale at present and in a more practical manner. The relation between Viet Nam and the US will not really be normalized and the sorrow of the past war will not end until this problem is addressed.

Overcoming of Agent Orange/dioxin consequences should not be only involved with the victims in Viet Nam but also with Agent Orange/dioxin victims from the US and the US allies who took part in the Viet Nam war and the Vietnamese victims living in the US.

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Mr. FALEOMAVAEGA. Thank you, Dr. Nguyen. Professor Dalpino.

STATEMENT OF MS. CATHARIN DALPINO, ASSOCIATE PROFESSOR OF SOUTHEAST ASIAN STUDIES, ASIAN STUDIES PROGRAM, EDMUND A. WALSH SCHOOL OF FOREIGN AFFAIRS, GEORGETOWN UNIVERSITY (DIRECTOR OF THE ASPEN INSTITUTE PROJECT ON AGENT ORANGE)

Ms. DALPINO. Thank you, Mr. Chairman. Thank you for holding this historic hearing and inviting me to testify. I will be brief, and I will leave my longer remarks for the record.

I am a social scientist, not a hard scientist or a physician, and so I am going to focus my testimony on the impact of the Agent Orange issue on United States-Vietnam relations.

I strongly agree with the assertion that the United States has a moral responsibility to address this issue in Vietnam. I also believe that doing so in a significant and visible manner will help United States-Vietnam relations, both in the short, the medium, and the long term, and I would like to speak about that specifically.

The United States and Vietnam individually had to make the horrific discovery of the impact of Agent Orange in isolation of one another in the 1970s and 1980s. When the normalization process began, it was not an issue; it was off the table. One reason for that, I believe, is that neither side wanted to enter into an issue they thought would derail that process.

As you know, the normalization process was a so-called "roadmap," a linear progression in which individual benchmarks were met before progress could be made.

At the present time, in United States-Vietnam relations, we are really seeing a flowering of relations in so many ways. We no longer have a roadmap; we have what many people have called a "multilane highway" with a number of issues at play and also a greater number of actors in United States-Vietnam relations. I think one interesting indication of that is that, at the beginning of the decade, the most famous American to visit Vietnam was President Clinton. At the end of the decade, the most famous American was Bill Gates.

I think that there are three main reasons why increased assistance and adequate assistance to this issue in Vietnam would be very good for the relationship. First is the expansion of the relationship and the growing importance of United States-Vietnam ties. Vietnam is, at present, an economic superstar in the world and in Southeast Asia, and the United States is the largest trading partner for Vietnam. Trade has quadrupled in this decade.

As well, Vietnam is a growing leader in the Asian region. In the year 2010, there will be a chair of ASEAN, and many, many issues are now being put into the Asian camp, including such things as the Burma cyclone. So, really, Vietnam will have a lot on its plate, and working with Vietnam in that way will be very important.

In addition, security ties with the country are becoming increasingly salient and increasingly important. For obvious reasons, developing those ties will be a slow, incremental, and cautious process, but they will become increasingly important.

At the same time, I think there is a serious deficit of trust in the relationship that does not, in any way, mitigate all of the progress

that has been made and all of the goodwill on both sides, a deficit that really will not be able to undergird the sorts of relations that both sides would like to have until we settle some of the issues of the war, and I think, paradoxically, we will not be able to move forward until we look back, and we heal some of those issues in looking back.

Lastly, I would point out that this issue, the issue of Agent Orange, has a very high profile in Vietnam, and it is very sensitive in Vietnam, and I think it is fully equivalent, if not more so, to the profile that the POW/MIA issue has had in the United States, and it is not simply a government-to-government issue. If you go to Vietnam, almost on a weekly basis, there are charity concerts that are given by artists to benefit the victims of Agent Orange and that sort of thing.

We have talked a lot in the policy community in the past several years about the so-called "loss of soft power" of the United States abroad, the drop in approval rates for the United States abroad, and I think this is one of the best single examples of how increased activity and increased assistance could very much benefit our public diplomacy program and our image, and, for all practical purposes, it is very low-hanging fruit, and I am somewhat puzzled as to why the United States does not recognize that in its public diplomacy program.

Initially, the United States Government was very reluctant to enter into this issue, even within this decade, and, in my evaluation, some of the early activities were not very successful.

In the past couple of years, there has been a momentum building, both with some funding, as well as with, and this is quite important, a lot of public/private partnerships as well.

I think that there are six things that we can start on now that would really benefit this issue in both the mid and the long run.

First, the Executive Branch needs to develop a stronger constituency for this issue within its own ranks. It really does not have much. Progress on this issue, advocacy for this issue has really been upon individuals rather than through broader policy. In my own experience in the State Department, I do not think that is going to change until they hear from the political levels within the administration, and I think that is one place we should look.

Second, I think this endeavor really would benefit from having standalone legislation, both in terms of raising the profile of it, as well as eventually securing funds that can really address these profound and long-term needs. I salute the earmark. I think it is wonderful and certainly was necessary, but I do not think that simply earmark to earmark is going to address that.

Third, advocacy groups need to educate the American policy community and the American public as well. There is a great ignorance in the American public about the effects of Agent Orange, both in the United States and, more seriously, in Vietnam, and hearings like this, I think, are very important.

I was struck, in my own work as a professor, to see, when I did a survey of syllabi of university courses in the United States that teach the Vietnam War, that Agent Orange and war-legacy issues are seldom mentioned, if at all, and that is one place to start.

I do also believe, fourth, that we do need to increase our assistance and our efforts with our United States veterans, and I think this is a twin issue, not only for the obvious humanitarian reason but because I think that support in the American public will increase for helping Vietnam, if we also continue to look after our own and increase our efforts.

I also think that some effort should be made to determine the extent to which the wartime exposure to Agent Orange has affected Vietnamese-Americans. This is something that some Vietnamese-American leaders have been quietly exploring, but they are effectively orphaned in this issue. They are not eligible for compensation from the Veterans Administration, and it would be good to, in a very cautious way, go forward and look at this.

And, lastly, I do think that Vietnam should be the absolute center of this effort because of the amount of Agent Orange that was sprayed. But when we have made significant inroads, I think we do need to take those best practices and look to Laos and Cambodia.

By far, the majority of Agent Orange that was sprayed was sprayed in Vietnam, but we think that maybe 500,000 gallons were sprayed in Laos as well, and Laos has had some concern. They are not as able to advocate for themselves as Vietnam is at this time, but I know that, at some point, when we do have significant progress made, we might look at triangular efforts—the United States and Vietnam—to bring in these smaller countries and look to their needs as well. Thank you, Mr. Chairman.

[The prepared statement of Ms. Dalpino follows:]

PREPARED STATEMENT OF MS. CATHARIN DALPINO, ASSOCIATE PROFESSOR OF SOUTHEAST ASIAN STUDIES, ASIAN STUDIES PROGRAM, EDMUND A. WALSH SCHOOL OF FOREIGN AFFAIRS, GEORGETOWN UNIVERSITY (DIRECTOR OF THE ASPEN INSTITUTE PROJECT ON AGENT ORANGE)

BUILDING TRUST IN US-VIETNAM RELATIONS: THE ISSUE OF AGENT ORANGE

Thank you for this invitation to appear before the Subcommittee to discuss the legacy of the wartime use of Agent Orange and its continuing impact on the people of Vietnam and the United States, and on US-Vietnam relations. My views on this subject are informed by my work as Visiting Associate Professor of Southeast Asian politics, security and international relations at Georgetown University, and as Director of The Aspen Institute Advocacy and Exchange Program on Agent Orange/Dioxin. The latter seeks to educate Americans on the urgency of the Agent Orange issue and to promote dialogue—between the United States and Vietnam and within the United States—on its resolution. I also serve as President of the Board of Directors of the War Legacies Project, a Vermont-based non-governmental organization working to develop a fuller accounting of the costs of war and to connect people who suffer from its effects with those who can mitigate that suffering. The views expressed in my testimony today are my own, and not necessarily of these institutions.

My training is in political science, and I will therefore focus my testimony on the impact of Agent Orange on US-Vietnam relations. My colleagues on the panel who are physical scientists and medical professionals are better able to assess the precise impact—on human health and the environment—that dioxin has exerted and continues to exert in Vietnam. However, many of us have stood on the runway of the Da Nang airport and seen how the herbicides spilled there during the war have blistered the tarmac. We have spoken with farmers living on the perimeter of former U.S. military bases who lost their livelihood when dioxin in the soil and water contaminated their livestock. And we have visited provinces with continued high levels of dioxin where families—and even entire villages—have been impoverished by the need to care for an alarming percentage of people with profound physical and cognitive disabilities. The ravages of Agent Orange in Vietnam are evident enough to the layperson.

Agent Orange in the US-Vietnam Relationship

Over the past two decades, reconciliation between the United States and Vietnam has been a double-edged sword: each country has had to manage intense domestic issues related to the damage of a tragic war while it has attempted to find accord with its former adversary. In the process of normalization, domestic dynamics have often been as important as—and at times have even overshadowed—foreign policy issues in the bilateral negotiation process.

The impact of Agent Orange is a potent domestic driver in both Vietnam and the United States because it is an ongoing and even future problem, given the suspected link between high levels of exposure and birth defects. Moreover, in Vietnam contamination is ongoing in those areas where dioxin continues to leech into the soil and water. However, the issue of Agent Orange has only been broached in the official US-Vietnam relationship in the past few years.

In Vietnam, the environmental damage caused by Agent Orange was evident before the war had ended, but realization of the full impact of dioxin on human health was slower to unfold, particularly with regard to birth defects. A parallel process was taking place in the United States and led to class action litigation by veterans groups against the US manufacturers of Agent Orange in 1978, which was settled out of court in 1984. Payments were also made to military personnel from Australia and New Zealand in the suit.

Identification of Vietnamese suffering medical and other problems from dioxin exposure was a more complicated process, because the pool of possible victims was much larger, and because attention to Agent Orange victims had to be balanced with relief for other war sufferers, such as those who had been injured by landmines. Moreover, US victims of dioxin exposure were easier to isolate, since they were largely confined to Vietnam War veterans and their families. In addition to their own veterans, Vietnam was also faced with millions of civilians who had been exposed to dioxin because their provinces had been sprayed.

In each country, as health problems related to dioxin exposure became apparent the government was under pressure to provide some degree of relief. The US Veterans administration currently provides medical services to Vietnam veterans for eleven disorders believed to be linked to dioxin exposure. The descendents of veterans exposed to Agent Orange are also allowed services to treat spinal bifida. Veterans groups have complained that many are not receiving the services promised, and that coverage for children is particularly inadequate. In Vietnam, people who are classified as suffering from the effects of exposure to Agent Orange receive approximately $50 per year in assistance. The government struggles to provide them with some services in institutional programs, many of which are maintained with donor aid.

Vietnam and the United States wrestled with the domestic problems presented by Agent Orange in isolation of one another during the first two decades after the war. When negotiations on normalization commenced and the two countries embarked upon a "roadmap" to diplomatic recognition, humanitarian assistance to remediate the impact of Agent Orange in Vietnam was not on the table. However, accounting for US prisoners of war/missing in action (POW/MIA) was a centerpiece of the plan. Indeed, US-Vietnam cooperation in this area has been a mainstay of the relationship for more than twenty years.

During the normalization period the issue of Agent Orange in Vietnam was tacitly pushed aside. Although the issue is increasingly considered to be a humanitarian one, it was often viewed through an ideological lens in the years immediately following the war. Both governments were inclined to avoid issues that might derail the normalization process.

With US-Vietnam diplomatic relations established in the mid-1990's and full trade relations completed earlier in this decade, the tenor of the bilateral relationship is rapidly changing. The normalization "roadmap" prescribed a linear relationship, in which progress was measured according to established benchmarks. However, the relationship has expanded into a busy agenda of policy issues that play out simultaneously, sometimes reinforcing one another and sometimes seeming to contradict one another.

Moreover, the number of actors has increased exponentially. Philanthropic groups, non-governmental organizations and corporations all play a growing role in the relationship, and public opinion is given greater weight by both governments. As one indication of this phenomenon, at the beginning of the decade the most prominent American to visit Vietnam was President Bill Clinton. More recently, it has been Bill Gates.

New Opportunities—And Imperatives—To Resolve An Old Problem

Despite the present flowering of US-Vietnam relations, war legacy issues still have resonance—and present significant problems—in both countries. Paradoxically, to continue moving forward in the relationship, it is important to look back to these issues and make a conscious and concerted effort to address them. There are several compelling reasons for the United States to work with Vietnam to remediate the impact of Agent Orange in this new era:

1. *The growing importance of US-Vietnam relations in US policy toward Southeast Asia.* With its high literacy rates and its spectacular growth rates, Vietnam's economic development has thrust it into the international spotlight as a new economic "superstar." US-Vietnam trade has quadrupled in this decade, and the United States is now Vietnam's largest trading partner. Less spectacular but equally important is the emerging US-Vietnam security relationship. Security ties will proceed at a more cautious and incremental pace, but the Pentagon has expressed its clear interest in expanding the bilateral security dialogue.
2. *The need to strengthen trust between the two countries as the relationship expands.* US-Vietnam relations may be fully "normal," but a certain amount of wariness remains between former adversaries. Expansion into new policy areas—particularly security—will require building greater trust between the two countries. Increasingly, Vietnamese are inclined to see issues such as Agent Orange as a litmus test of US intentions and reliability as a partner, not least because the United States has placed such emphasis on accounting for its own POW/MIA's. Vietnam is not expecting a direct quid pro quo, but they are looking for an indication that the United States takes Vietnamese needs—as well as US interests—into account in the relationship. If the United States increases cooperation with Vietnam on Agent Orange, there may not be immediate links to other policy issues, but it may well improve the overall policy environment.
3. *The growing power of Vietnamese public opinion on Agent Orange. In recent years, Vietnamese victims of Agent Orange have become more visible to the Vietnamese public. Popular artists often perform charity concerts for their benefit. The class action lawsuit in US Federal Court brought by the Vietnamese Association for the Victims of Agent Orange/Dioxin (VAVA) against American manufacturers of herbicides has boosted the profile of the issue enormously in Vietnam. To date, the lawsuit was rejected in the lower court and has been turned down on appeal. Without visible efforts from the United States to lessen the damage caused by Agent Orange, the Vietnamese public may easily come to view this issue as a clear negative in the bilateral relationship. In an era when the United States is concerned about a drop in its "soft power" abroad, it is difficult to fathom why Washington does not view assistance to address Agent Orange as an asset to its public diplomacy policy in Vietnam.*

Initial Steps Toward Partnership on Agent Orange

In the post-normalization period, the US Government has been reluctant to enter into cooperation on Agent Orange with Vietnam. In the face of growing Vietnamese public awareness of this issue, and growing pressure from US scientific and humanitarian groups, in 2002 Washington acceded to a Vietnam-US Joint Advisory Committee. Shortly thereafter the two countries attempted to launch a joint research project on dioxin, which foundered when the two sides could not agree on a number of issues. One more positive activity in this period was the provision of technical equipment and expertise on analyzing soil samples from the Environmental Protection Agency. The EPA also co-funded, with the Ford Foundation, an assessment of cost-effective measures to contain the dioxin at the Da Nang airport. Overall, however, these early efforts to cooperate were discouraging.

In the past three years, however, a series of events have created a modest upturn in this policy area. For the first time, joint statements following US-Vietnam Summits, one in Washington and one in Hanoi, mentioned cooperation between the two countries on dioxin. The 2006 report of the Appropriations Subcommittee of the Senate Foreign Relations Committee included language recommending a small pot of funds for the remediation of Agent Orange in Vietnam. In 2007, the first earmark of funds, in the amount of $3 million, was appropriated and plans are in train for a 2009 earmark that could be slightly higher.

This new, if modest, momentum has also sparked public-private partnerships and a Track Two process to forge cooperation on Agent Orange between Vietnamese and American non-governmental actors. In 2007 the Ford Foundation announced the

creation of the US-Vietnam Dialogue on Agent Orange/Dioxin, launched with assistance from Ford's Special Initiative on Agent Orange/Dioxin. The Dialogue Group seeks to draw attention to the range of human and environmental needs related to Agent Orange in Vietnam, and to identify a wide range of donors to help address those needs. One early success in this venture has been containment of dioxin on one end of the runway at the Da Nang airport, to prevent the chemical from leaking into the surrounding soil. A written statement provided to the Subcommittee by Walter Isaacson, President of The Aspen Institute and Co-Chair of the US-Vietnam Dialogue on Agent Orange/Dioxin, provides additional information on the work of the Dialogue Group.

Thusfar, in this new climate of cautious cooperation on Agent Orange, the greater commitment of American funds and effort has come from the private side. For example, the Ford Foundation's two-year Special Initiative is funded at nearly twice the amount of the 2007 earmark. Without question, private sector support will be crucial to address Agent Orange but an equal, if not greater, share needs to come from the US Government if progress is to be made, and if Vietnam is to believe that US intentions in this regard are genuine.

Next Steps and Recommendations

The small, incremental gains made in the Agent Orange issue area in recent years are encouraging but they do not yet add up to a solid policy. The long term nature of this problem will require the combined efforts of the US Government and American philanthropic and humanitarian organizations, as well as enduring partnerships between Vietnamese and Americans on both official and non-governmental levels. In the short to mid-term, the following steps should be considered:

1. *The US executive branch needs to develop a stronger constituency for this issue within its own ranks.* The Agent Orange issue has few, if any, champions in the foreign policy agencies, and attitudes toward it are more a matter of individuals than policy. This dynamic is not likely to change until Agent Orange and related war legacy issues are given greater attention at the political levels.
2. *Congress should consider stand-alone legislation to provide humanitarian assistance and technical aid to Vietnam on Agent Orange.* Beyond the obvious salutary effect, such legislation would help ensure long term funding for this purpose.
3. *Advocacy and education groups need to do more to bring Agent Orange and other war legacy issues to the attention of the US policy community and the American public.* Although the Vietnam War ended forty years ago, it is still a source of debate and disagreement in American society. This discourse can be channeled more constructively to address the tangible side of legacy issues. To do so, however, Americans need greater information on the long term impact of the war. For example, most university-level courses on the Vietnam War in the United States fail even to mention these issues.
4. *Assistance to Vietnamese suffering the effects of Agent Orange should be matched with more vigorous attention to the plight of US veterans.* Beyond the obvious humanitarian justification for this, helping our own veterans will be critical to building public support for a long term partnership with Vietnam on this issue.
5. *Efforts should be made to determine the extent to which wartime exposure to Agent Orange has affected Vietnamese-Americans.* Some Vietnamese-American leaders have begun to explore this issue quietly. Vietnamese-Americans who may suffer from dioxin-related disorders are effectively orphaned in this issue, since assistance is not available to them through the Veterans Administration.
6. *Best practices in the remediation of Agent Orange in Vietnam should be considered for Laos and Cambodia, along with appropriate assistance.* Although far less herbicide was sprayed in these two countries compared to the amount in Vietnam, the "Ho Chi Minh Trail" ran through both countries. The US Government denied that Agent Orange was used in Laos until a 1982 Freedom of Information request by the National Veterans Task Force on Agent Orange led to the release of Operation Ranch Hand documents which revealed spraying in Lao territory. A Lao working group on Agent Orange was formed several years ago but has not been able to make as much headway in documenting the impact of Agent Orange as have agencies and groups in Vietnam. As US-Vietnam partnerships on Agent Orange progress,

they might consider triangular activities that can include Laos and Cambodia.

Although this list of future tasks and challenges may appear daunting, I believe that initiatives such as this hearing are an important component to this process, by promoting public discussion on Agent Orange and other war legacy issues. Thank you for convening these discussions, and for permitting me to participate in them.

Mr. FALEOMAVAEGA. Thank you very much, Professor Dalpino. Dr. Turekian.

STATEMENT OF VAUGHAN C. TUREKIAN, PH.D., CHIEF INTERNATIONAL OFFICER, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (MEMBER OF THE U.S.-VIETNAM DIALOGUE GROUP ON AGENT ORANGE/DIOXIN)

Mr. TUREKIAN. Chairman Faleomavaega, thank you, and thank you to the subcommittee for giving me this opportunity to testify on this important topic of Agent Orange legacy.

While my day job is as the chief international officer for the American Association for the Advancement of Science, I am serving in today's testimony as a member of the U.S.-Vietnam Dialogue Group on Agent Orange.

The persistent problem associated with Agent Orange contamination remains a contentious legacy of the war, leading to some bilateral tension between our governments. Addressing this, both through governmental mechanisms, as well as through civil society partnerships, present an opportunity to build a stronger and sustainable relationship with this strategically important and economically vibrant Asian country.

My written statement addresses many of the scientific issues and some of the scope of the spraying, as well as some of the health impacts and environmental impacts of the spraying. But I would like to focus today my oral remarks on the issue of collaborative efforts, in fact, many of the things that my colleague, Catharin, mentioned today, particularly through civil society engagements, to address Agent Orange and its legacy in Vietnam.

Dealing with the Agent Orange legacy is becoming a greater part of the official bilateral relationship. One need only look at the joint statement between President Bush and President Nguyen in 2006, which was the first one to acknowledge dioxin contamination as a legacy of the war. They agreed to collaborative efforts to clean up dioxin hot spots at former U.S. military bases and increase humanitarian assistance.

The scale and scope of the problem is so large and solutions really so costly that government action is required. That said, bilateral, civil society partnerships are also critical for identifying and addressing specific needs in an efficient and collaborative manner. As such, a number of U.S. private foundations are getting involved. For example, and the reason why I am here, the Ford Foundation has invested nearly $4.5 million to address Agent Orange contamination and its impacts on the environment and human populations.

As part of this effort, it has funded efforts of the Aspen Institute and convened a binational committee with the United States and Vietnamese co-chairs, the U.S.-Vietnam Dialogue Group on Agent Orange, of which two members are here today. This dialogue group, of which I am a member, brings together policymakers and sci-

entists from both nations to strengthen cooperation between the two countries and to identify resources to help mitigate the problem.

The dialogue group has identified five main priority areas for attention for stakeholders, including (1) to support cleanup at former United States military air bases; (2) to expand support for treatment and education standards for victims; (3) to assist in developing a dioxin testing laboratory in Vietnam; (4) to train local communities on environmental restoration of affected land; and (5) to continue educating and advocating, as Catharin mentioned, to build support for ongoing efforts in the United States.

In fact, addressing Agent Orange issues through such collaborative efforts augments governmental endeavors and, in fact, increases the efficiency and, in many ways, the effectiveness of many of these responses.

Further, meeting these challenges through such partnerships represents an opportunity for U.S. civil society to engage in the act of, as my colleague mentioned, soft diplomacy. My own experiences reflect this and the value of potential scientist-to-scientist interaction as a critical tool for building bilateral goodwill, which may translate, may translate, into improved bilateral relationships. I look at the polling that takes place around the world that shows the respect that U.S. science has around the world, particularly as an agent for good in meeting many of the social issues.

As with other international scientific engagements, our work with the Vietnamese scientific community allows us to move beyond many of the politically contentious issues. Instead, we are able to focus on finding solutions to challenges related to environment, health, and long-term measurement and monitoring.

I believe that the United States scientific community can continue to work in partnership with the Vietnamese scientists to build capacity and integrate Vietnamese scientists into rapidly developing, global science enterprise.

The proposal for a high-resolution dioxin laboratory provides a great example of this approach. The collaboration between the Government of Vietnam, United States-based foundations, and the scientific community to develop a high-resolution, dioxin-testing center in Vietnam will ultimately allow Vietnamese scientists to test their own environmental and, really more critically, human samples rather than outsourcing them to foreign laboratories in Europe and Canada.

With continued international collaboration and training, this lab may contribute to the peer-reviewed literature on a range of potential environmental contaminants that have both impacted national and regional scales.

More importantly, this lab will provide a training facility for future generations of Vietnamese scientists. This technically trained next generation will not only contribute to the continued economic innovation and growth in Vietnam but will also provide a window of opportunity for scientific collaborations with counterparts around the world and, particularly, with the United States.

It is really time to address the legacy of war by working together and putting it behind us so that our rapidly growing, bilateral rela-

tionship can flourish. Thank you, Mr. Chairman, for giving me the time for these remarks.

[The prepared statement of Mr. Turekian follows:]

PREPARED STATEMENT OF VAUGHAN C. TUREKIAN, PH.D., CHIEF INTERNATIONAL OFFICER, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (MEMBER OF THE U.S.-VIETNAM DIALOGUE GROUP ON AGENT ORANGE/DIOXIN)

Chairman Faleomavaega, Ranking Member Manzullo, and Members of this Subcommittee, thank you for giving me this opportunity to testify on the important topic of the Agent Orange legacy. I am Vaughan Turekian, Chief International Officer of the American Association for the Advancement of Science (AAAS)—the world's largest general scientific society whose mission is to advance science in service of society. For the purposes of today's hearing, I am testifying as a member of the US-Vietnam Dialogue Group on Agent Orange.

The persistent problems associated with Agent Orange contamination remain among the most contentious legacies of the Vietnam War, leading to some bilateral tension between the U.S. and Vietnamese governments. Addressing this legacy, both through government to government mechanisms as well as through civil society partnership presents an opportunity to lay the foundation for a stronger and sustainable relationship with this strategically important and economically vibrant Asian country.

This statement addresses the following issues:

- Scope of the spraying and some scientific background;
- Health impacts of Agent Orange and dioxin;
- Environmental impacts;
- Collaborative efforts to address Agent Orange and its legacy in Vietnam;

SCOPE

Agent Orange is a toxic herbicide that was used during the Vietnam War to remove trees and shrubbery that otherwise provided cover for enemy forces during the conflict. It was also used to reduce agricultural productivity. Agent Orange was made up of two less toxic compounds that when combined produced an extremely toxic byproduct 2,3,7,8 tetrachlorodibenzo-p-dioxin (most commonly referred to as TCDD) as a result of faulty production practices. Dioxins are some of the most toxic known human-synthesized chemicals, and TCDD is the most lethal dioxin compound.

Between 1962 and 1971, the U.S. military initiated Operation Ranch Hand, which was the systematic application of Agent Orange in southern and central Vietnam using airplanes, helicopters, boats, ground vehicles, and ground soldiers. South Vietnamese forces continued to use Agent Orange and other herbicides the United States gave them through 1975. According to U.S. military estimates, roughly 20 million gallons of Agent Orange was sprayed during that time, with an estimated 2–4 million citizens and soldiers that were directly sprayed. Current data show that roughly 10 percent of the total land area in southern Vietnam was impacted by the spraying. In some southern provinces, 50 percent of the land was completely stripped by Agent Orange.

TCDD does occur in nature, although in extremely low doses. For example, the typical concentration of TCDD in urban U.S. soil is about 10 parts per trillion (ppt). In Vietnam, varying amounts of dioxins are to this day found in areas affected by wartime spraying with the highest levels measured around former U.S. air bases, including Da Nang and Bien Hoa. In a 2001 study by Arnold Schecter et al., TCDD concentration in Bien Hoa was estimated at roughly 1.2 million ppt although this high concentration in Bien Hoa is attributed to accidental spills that occurred during the conflict, including the largest recorded spill of 7,500 gallons of Agent Orange. Dioxin concentration in Da Nang is estimated to be in the hundreds of thousands of ppt. Areas that were not sprayed during the war, generally in the northern region, have very low concentrations of TCDD. Today's dioxin contamination of the Vietnamese environment is a point source problem rather than a widespread/landscape contamination problem.

HEALTH IMPACTS

U.S. veterans started reporting health problems shortly after returning from service in Vietnam. Of the roughly 3 million U.S. veterans that served in Vietnam during the war, nearly half were there during the period of heaviest spraying. It was

not until Congress passed the Agent Orange Act of 1991 (P.L. 102–4) that the Secretary of Veteran Affairs (VA) called upon the National Academies Institute of Medicine (IOM) to conduct a scientific review of Agent Orange and adverse health effects. The IOM published its first report in 1994 and subsequent reviews were conducted every two years (until 2014 under the Veterans Education and Benefits Expansion Act, P.L. 107–103). The IOM studies found a strong scientific association ("sufficient evidence) between Agent Orange exposure and certain types of cancers, including soft-tissue sarcoma, non-Hodgkin lymphoma, Hodgkin disease, and chronic lymphocytic leukemia, and chloacne. The IOM also found looser associations, categorized as "limited/suggestive evidence," "inadequate/suggestive evidence," or "inadequate/insufficient evidence," with Agent Orange exposure and other cancer, congenital birth defects, diabetes type II, and other health disorders. The last update was completed in 2006 (see Appendix C for summary of findings), with the 2008 update currently in progress. In addition to the studies from IOM, the EPA also released a report in 2000, concluding that dioxins are carcinogenic in humans and may cause adverse health effects including: immune system alterations, reproductive, developmental or nervous system effects, endocrine disruption, altered lipid metabolism, liver damage, and skin lesions.

The National Academies and EPA studies focused on the adverse health effects of U.S veterans, who for the most part, suffered from short-term exposure to the TCDD. These effects pale in comparison to the Vietnamese people who remained in the affected areas and suffered much longer-term exposure. These people continued drinking water with dioxin-laced sediment and eating fatty tissues fish from contaminated water sources. Since the Vietnamese diet is based around vegetables and fish, TCDD entered the food chain through consumption. Given their fat contents food sources including fish, poultry, and dairy products account for the majority of dioxins exposure in humans. A 1996–1999 study by Dwernychuk et al. confirm that the levels of TCDD in blood, breast milk, and tissue samples are markedly higher in people who lived in or near contaminated areas and hot spots.

The Vietnamese government estimates that 3 million of its citizens still suffer health effects due to Agent Orange spraying. The Vietnamese government provides monetary compensation of approximately $3–$7 a month to these victims, hardly enough to cover medical expenses or care for disabled children (the GDP per capita in 2007 was $2,600, though anecdotally many of the affected families are outside of the more prosperous urban centers). The Vietnamese government has filed various appeals to the U.S. government for victim compensation, all of which have been rejected. As a result, many support groups and NGOs have organized to take legal action. For example, the Vietnamese Association for Victims of Agent Orange filed a lawsuit against producers of Agent Orange; that case was dismissed in 2005 and the verdict was upheld earlier this year.

ENVIRONMENTAL IMPACTS

The original intention of spraying Agent Orange was to clear the dense forests of vegetation to help U.S. soldiers to uncover opposition forces. Consequentially, the spraying turned the once lush green forests into barren lands. Today these areas have been taken over by a very tough weed-like grass that the Vietnamese refer to as "American grass." Without direct human intervention, such as planting trees or tearing up the hillsides, the invasive grass prevents trees or other vegetation from growing back. Furthermore the tree loss has reduced the spread of plant roots that help protect the soil, resulting in soil erosion, increased landslides, and flooding, all of which remain major problems today.

Dioxins are also part of a class of compounds known as "persistent organic pollutants" meaning that they can remain in the environment. It is estimated that the cost of containment and removal of the dioxins at Da Nang alone is at least $ 15 million.

COLLABORATIONS

In 2006, President Bush and Vietnamese President Nguyen Minh Triet for the first time issued a joint statement acknowledging dioxin contamination as a legacy of war. They agreed to engage in collaborative efforts to clean up dioxin hot spots at former U.S. military air bases and increase humanitarian assistance to the disabled. Beyond the political issues, legal concerns over liability, and extent of impact, one of the major impediments to fully addressing Agent Orange issues is the cost associated with such efforts. For example, dioxin screenings of both environment and biological samples range from $600–$1,000 per sample. And clean up and remediation costs in the areas with the highest concentrations present are estimated to

be at least $60 million. Long-term health care for disabled Vietnamese veterans and their children are even more costly.

The Vietnamese government recognizes that alone it cannot mitigate the impacts of Agent Orange exposure and contamination, and has welcomed opportunities for international collaborations—not only government to government interactions, but also bilateral civil society partnerships. A number of US private foundations are getting involved. For example, the Ford Foundation has invested nearly $4.5 million to address Agent Orange contamination and its impacts in the environment and human populations. As part of this effort it has funded efforts through the Aspen Institute and convened a binational committee with US and Vietnamese co-chairs, the U.S.-Vietnam Dialogue Group on Agent Orange. The Dialogue Group brings together policymakers and scientists from both nations to strengthen cooperation between the two countries and to identify resources to help mitigate the problem. The Dialogue Group has identified five main areas for the priority attention of stakeholders:

- To support clean up at former U.S. military air bases and health and livelihood programs for the surrounding communities;
- To expand support for treatment and education centers for victims of dioxin-related illnesses by improving available services;
- To assist in developing a dioxin testing laboratory in Vietnam, to both mitigate costs and develop local skills and independent expertise to sustain efforts over the long-term;
- To train local communities on environmental restoration of the affected land;
- To continue educating and advocating to build support for ongoing efforts in the United States.

The Dialogue Group has met three times so far. The most recent meeting was in February 2008 when the Group assembled in Vietnam to observe the progress being made in dioxin containment measures. The group also noted progress made in the expansion of services to people with disabilities and establishing a high-resolution dioxin testing laboratory.

Addressing Agent Orange issues through such collaborative efforts augments governmental endeavors and, in fact, increases the efficiency and effectiveness of responses. Further, meeting these challenges through such partnerships represents an opportunity for U.S. civil society to practice the act of soft diplomacy. My own experiences reflect the value and potential of scientist to scientist interactions as a critical tool for building bilateral goodwill, which may translate into improved bilateral relationships—one need only look at polls from around the world to see the high regard which U.S science is held.

As with other international scientific engagements, our work with the Vietnamese scientific community allows us to move beyond the politically contentious issues. Instead, we are able to focus on finding solutions to challenges related to environment, health, and long-term measurement and monitoring.

I believe that the U.S. scientific community can continue to work in partnership with Vietnamese scientists to build capacity and integrate Vietnamese scientists into the rapidly developing global science enterprise. The proposed dioxin lab provides a great example of this approach. The collaboration between the Government of Vietnam, U.S.-based foundations and the scientific community to develop a high-resolution dioxin testing center in Vietnam will ultimately allow Vietnamese scientists to test their own environmental and (more critically) human samples, rather than outsourcing them to foreign labs in Europe and Canada. With continued international collaboration and training, this lab may become the first regional standards laboratory for monitoring organic pollutants, contributing to the peer reviewed literature on a range of potential environmental contaminants that have impact at both national and regional scales. More importantly, this lab will also provide a training facility for future generations of Vietnamese scientists. This technically trained next generation will not only contribute to the continued economic innovation and growth in Vietnam, but will also provide a window of opportunity for scientific collaboration with counterparts in the United States.

SUMMARY

Rather than being an issue of the past, the legacy of Agent Orange still impacts human and environmental health and diplomatic relationships. After more than thirty years since the end of the Vietnam War, the U.S. must start fulfilling its obligation as a responsible global citizen by helping to contain dioxin hot spots and providing the necessary humanitarian assistance to affected people. This collaboration

must be seen as a chance to improve the relationship between our two countries through engaging our scientific communities. The value of science diplomacy should not be underestimated; this is a perfect opportunity where science may prove to be a powerful tool for engagement, as many solutions to Agent Orange issues lie in science and technology. It is time to address this legacy of war and work towards putting it behind us so that our rapidly growing bilateral relationship can continue to flourish.

Mr. FALEOMAVAEGA. Thank you, Dr. Turekian. Mr. Weidman?

STATEMENT OF MR. RICK WEIDMAN, EXECUTIVE DIRECTOR FOR POLICY & GOVERNMENT AFFAIRS, VIETNAM VETERANS OF AMERICA (VVA)

Mr. WEIDMAN. Mr. Chairman, my name is Rick Weidman. I served in Vietnam with the AMERICAL Division as a medic in 1969, and I congratulate you on you and your family's service in Vietnam, sir, as well as for what you are doing today. I want to thank you for your leadership in holding this hearing today.

Ordinarily, Vietnam Veterans of America, we stick to veterans' issues and to domestic policy. In fact, it is in our constitution that we do not take stands on things outside of veterans' issues, broadly defined. Two of those issues, beginning in December 1981, Vietnam Veterans of America sent our first delegation back to Vietnam, led by then-President "Bobby" Muller, and there were two items on the agenda. One was the fullest possible accounting for our MIAs, and you have got to talk to the people who own the country now; and, secondly, is the issue of Agent Orange.

Vietnam is the natural laboratory where you can do the epidemiological studies, particularly in the North, because you know exactly who went south. It is a little bit different in diet, but it is basically a homogenous gene pool, and you can track those populations and compare them to those who are progeny of those who did not go to the South, as opposed to those that did.

So we press from 1981, with many delegations going to Vietnam on these two issues. Beginning in the early 1990s, we launched the "Veterans' Initiative," which was collecting information about grave sites where MVA and Viet Cong and our opponents in that war might have grave sites, and turned it over to their veterans' organization of Vietnam, and, in return, they got us information back from villages that they would give the Veterans Association that they may not give to their government.

One thing that is common around the world is, no matter where you live, ordinary persons do not want to truck with government, but they will talk to the Veterans Association. So we would then turn that over to our J-Pac Command and to the Ambassador on debriefing on the way out of country, and so the Vietnamese believe we have helped them locate many of their MIAs, which was 350-some-odd thousand in a very small country, and they have located about 35,000 and have told us that the information that we have supplied that came from American veterans was useful.

So there is a congruence of interest here. It is warrior-to-warrior, former warrior-to-former warrior, reaching out to help the families on the other side resolve their emotional issues and find out what happened to their loved ones.

On the issue of Agent Orange, beginning in the mid-nineties, we started to really push on this and, with the help of Congressman

Lane Evans on the House side primarily, but there were others, and on the Senate side, Senator Tom Daschle, Senator Tom Harkins, Senator Kerry, and Chuck Hagel, and others, we were able, beginning in 1998–1999, to get funding inserted into the National Institute for Environmental Health budget in order to move forward and start research in Vietnam. Nothing happened, though, because there was reluctance on the Vietnamese side, according to the NIEHS.

Our then-president, in 2000, Thomas H. Corey, who was an infantryman shot through the chest in service with the Cave in Ashau, was able to prevail and come to an agreement where the Vietnamese agreed to move forward.

Then, in the fall of 2001, we finally got NIEHS to agree to move forward to do a conference and to do an agreement.

At the end of February and the beginning of March 2002, that conference was held. It was one of their International Conferences on Dioxin every year, but this was the first International Conference on Agent Orange. There was also a smaller subsequent conference that was held at Yale. What came out of that was an MOU to move forward on two fronts: One, epidemiological studies in Vietnam that were jointly conducted, and environmental assessment, countrywide, and low-cost remediation that could be conducted.

Unfortunately, the epidemiological studies never got started at all, and the EPA studies were stopped, and that is where we are today. The impact here is that some of what needed to happen, and what the Vietnam rightly wanted for their people, was capital infusion, accession to WTO, and access to capital and markets in world trade and funds to do the health care. They believed, from the outset, that research was moot, that it was clear and apparent, the need and the connection. However, for American veterans, that is not so for many diseases.

In the State Department's statement by the gentleman who spoke earlier today, "robust, peer-reviewed science that meets international standards," and they always use that same phrase. But I want to tell you, ain't nobody else going to fund research into Agent Orange or Agent Blue or Agent Pink or malathion impact or anything else in Vietnam if it is not the Federal Government. They are the only ones who are going to fund it, and they use this phrase over and over and over again, and, in fact, at this moment, there is not a single Agent Orange-related study funded by the Federal Government, not by VA, not by DoD, not by EPA, not by NIH, by no one, by no one.

So, therefore, if you couple that with the fact that $1.5 million for the medical follow-up agency to process the data left over from the end of the "Ranch Hand Study" that closed down last year, they need to maintain that data and make it accessible to scientists for mining that data, if you will, in future peer-reviewed, scientific literature, and the fact that they have stopped, against the law, the National Vietnam Veterans Longitudinal Study, which could be done as a robust, mortality and morbidity study of Vietnam veterans, what you have, we believe, is the casting aside of a generation of American vets. But the consequence on the other side is that the science is not going to be there for the Vietnamese.

We are all for anything that is going to help our counterparts in Vietnam, including the humanitarian aid that you talked about earlier, and $3 million is a foot through the door, but I am not surprised at all to discover that State has not yet actually let any money and begun the work.

The most positive thing that has happened in all of this is the action of the Ford Foundation, and I commend them for stepping in and for seeking out the Aspen Institute, and for moving this issue forward to do an assessment and start some remediation efforts, at least, of some of the hot spots in Vietnam because the MOU, frankly, is dead at this point.

The last point is this, sir: There is some consistency, on the part of the Federal Government. Jerry K Kramer, the famous NFL player, guard, six-time Pro Bowler, with the Green Bay Packers, was asked once, "What do you think about Vince Lombardi?" His response was, "Coach Lombardi is the fairest man I ever met. He treats us all like dogs."

In that sense, the Federal Government has been consistent in treating the Vietnamese people and American veterans and their families the same.

Mr. Chairman, I would be glad to answer any questions, and thank you very much for your leadership, sir.

[The prepared statement of Mr. Weidman follows:]

PREPARED STATEMENT OF MR. RICK WEIDMAN, EXECUTIVE DIRECTOR FOR POLICY & GOVERNMENT AFFAIRS, VIETNAM VETERANS OF AMERICA (VVA)

Good morning, Mr. Chairman, and Members of this distinguished Subcommittee . . . On behalf of VVA National President ,John Rowan and all of our officers and members we thank you for the opportunity for Vietnam Veterans of America (VVA) to appear here today to share our views on the issue "Forgotten Responsibility: What Can We Do To Help Victims of Agent Orange. I ask that you enter our full statement in the record, and I will briefly summarize the most important points of our statement.

Vietnam Veterans of America (VVA) took our first mission back to Vietnam after the war in December of 1981. That mission was led by our then President, and founder, Robert O. "Bobby" Muller. The substance was two fold: first to start the process of securing cooperation of the Vietnamese government in achieving the fullest possible accounting of our POW/MIA from the Vietnam ware (or "the American war" as the Vietnamese called it) and to move toward research in Vietnam as the natural laboratory for research into the epidemiological impact of Agent Orange and the other toxins used or inadvertently deposited in Vietnam during our presence there.

VVA has returned to Vietnam many times since, always focusing on these two core missions. Since the early 1990s, VVA has had the "Veterans' Initiative" (VI) of collecting information about graves of North Vietnamese Army casualties after battles with our forces that are contributed by American veterans who fought in Vietnam, including information, artifacts, etc. that VVA has transmitted to the Veterans Association of Vietnam. This veteran to veteran project has, according to the Vietnamese, contributed to the continued high level of cooperation that the Vietnamese have accorded the J-Pac forces searching for American remains in an effort to locate remains of missing American service members, repatriate them, and help bring closure to the families that have waited so long for final word on the fate of their loved one. Additionally, the Vietnamese have used the information imparted to continue their process of locating the remains of their MIA, and bringing closure to the Vietnamese families in a similar fashion. Our most recent VI mission to Vietnam was just last October.

As to Agent Orange, VVA continues to be the leader among American veterans groups in pressing for more research regarding the deleterious and adverse health effects of Agent Orange and other herbicides and toxins to which we, and Vietnamese forces and population were exposed to during the war Much of the residue of these toxins remains in Vietnam, and continues to expose the population to these

dangerous chemicals. The common perception is that it is an "Agent Orange" problem, but that is only one of the herbicides used in Vietnam, and only accounts for about 48% or 49% of the aerial spraying. There is still debate about whether Agent Orange was and is harmful human beings. Dr. Alvin Young continues to say, as he put it in testimony to the panel of scientists convened by the Institute of Medicine (IOM) of the National Academies of Sciences (NAS) last year: "The bad news is that Agent Orange was so widely dispersed by aerial spraying, ground vehicles, and by hand that virtually all who served there would have come in contact with it, but the good new is that most of it is not harmful." Dr. Young's contention is that only the Agent Orange that contains 2, 4, 5T was harmful, and that only very limited amounts were used during the early years of the spraying. VVA has reason to doubt that dioxin is good for you, and has told that to Dr. Young repeatedly. It appears that actually the highest concentration of 2, 4 D and 2, 4, 5 T was actually contained in Agent Pink, which was used extensively and primarily along roads and perimeters.

These were a total of at least 15 different agents used at one time or another during our military presence in Vietnam for defoliation and (apparently) for crop destruction to deny food to enemy forces during the war. A number of these agents were used only in very limited tests for possible effectiveness, and therefore only minute amounts of these toxins were left behind. However, Agent Blue, Agent White, and Agent Purple were used extensively, particularly for destruction of rice crops, and for defoliation along roads. The basic ingredient of these agents was cal with lithium, more commonly known as salt of arsenic. You do not have to be a chemist to understand that arsenic is not healthy for humans and other.

Because of the hard work of advocates outside of the of the Congress, as well as advocates in the Congress over the last twenty five years, such as Congressman Lane Evans of Illinois as well as Senator Tom Daschle, Senator John Kerry, and Senator Tom Harkin and others a number maladies suffered in disproportionate numbers by American veterans of Vietnam have been recognized as being service connected presumptive. What this means is that if a veteran has this malady, and can prove that he or she served on the ground in Vietnam (or in some case elsewhere in Southeast Asia or the DMZ in Korea) then it is adjudicated by the Veterans Benefits Administration of the Department of Veterans Affairs as being a result of the exposure in military service, entitling the veteran to compensation and health care.

VVA has continued to press for additional research into the effects of the toxic environment in which we lived and fought during our time in the military in Vietnam. One key aspect of that was seeking o get research going in Vietnam, as it is still the "natural laboratory" where all of this actually took place, and when we left the toxins were left behind.

Really from the 1980s forward, and intensively from about 1995 until 2001 VVA pushed hard to secure an agreement, and the funds, to bring about scientific research in Vietnam about these toxins. Thanks in particular to the Senators noted above, and Congressman Lane Evans, the funds were appropriated for three years in a row to the National Institute for Environmental Health Sciences (NIEHS) specifically for this purpose, but remained unused. Some of the delay was due to recalcitrance on the part of NIEHS and some due to the reluctance of the Vietnamese to down this road. Frankly, the Vietnamese makes sense to a layman in that they believed that the adverse effects of the toxins on the environment and on human health was pretty much self evident, and that the U.S. Government should accept responsibility for this and move to transfer funds and technical assistance to the Vietnamese to provide medical care and compensation to their citizens and to clean up the toxins still in their environment.

In 2001 the former National President of Vietnam, Thomas H. Corey, a wheelchair bound former infantryman with the First Cave who was shot through the chest in what we still call the Ashau valley during the war, led a delegation to Vietnam where a key official of Vietnam finally agreed to move toward an agreement to conduct the research. For three years the NIEHS had blamed the Vietnamese for lack of progress in actually utilizing the funds for the purpose intended by the Congress. Once the Vietnamese said yes, then NIEHS came up with all kinds of "reasons" and excuses as to why they could not move ahead.

Finally in the fall of 2001, the NIEHS agreed to move forward, and the first ever International Conference on Agent Orange was held in Hanoi in late February/early March of 2002. Scientists, physicians, and officials from more than 90 countries attended, and many gave papers, served on panels, or presented scientific "posters." At the end of that Conference, the United States government and the government of Vietnam signed a Memorandum of Understanding (MOU) to move forward with a joint scientific effort. The environmental survey was to be jointly executed, with

the Environmental Protection Agency (EPA) having the lead on the American side. The NIEHS had the lead on the American side to move forward with epidemiological studies of the population in Vietnam that was exposed.

The EPA did its job, and significant progress was being made on the ecological survey for the first three years, although not nearly as quickly as VVA believed possible. The NIEHS never did get a specific epidemiological study in place.

By the mid to late 2005 it was clear that there was an impasse that was unlikely to be resolved any time in the foreseeable future. In the spring of 2006, the Ford Foundation stepped forward and started providing funds for a survey of the "hot spots" with a view toward cleaning up those worst spaces, and least from dioxin and Agent Orange. Others at this hearing will I am sure provide a more complete picture what has been accomplished there as a result of Ford Foundation's leadership in stepping into this deadlocked situation.

As you know, President Bush visited Vietnam in late 2006, and Vietnam was able, with the assistance of the United States to achieve several major economic and trade goals that will (and already has) result in much investment in infrastructure, more free flow of goods from Vietnam to international markets, and a significant growth in the standard of living of the Vietnamese people. Vietnam still remains as one of the poorest countries in the world in regard to per capita income, despite the industriousness and creativity of their people.

So why does VVA have stake in what happens now? By forgoing the epidemiological studies in Vietnam, the research that we believe would have been immediately applicable to American veterans and their families is not going to take place. The Vietnamese are getting largely what they wanted, and doing the best by their people in securing capital, expanding scientific and industrial capacity, and acquiring the resources to provide more health care to their people. They will also get remediation of their worst environmental "hot spots" at least for dioxin.

Who loses are American veterans who do not get the benefit for studies that would be directly applicable to American veterans, particularly as to birth defects in not only our children for our grandchildren and great-grandchildren. It strains credulity that this is all by accident.

There is currently not a single study regarding the adverse effects of Agent Orange being funded by any of the National Institutes of Health, nor by the Defense Department, nor by VA nor by the EPA. Nor has the VA commented on the latest findings from the IOM pursuant to the Agent Orange Act of 1991, which was due months ago. Even the $1.5 million for the Medical Follow-up Agency of the IOM to care for the data from the now defunct Air Force "Ranch Hand Study" and to make it available to the scientific community mysteriously disappeared from the latest VA budget.

American veterans still do not have the answers we need. While we wish the Vietnamese people all the best with their problems due to Agent Orange, it is a fact that American veterans of Vietnam, and our families, are being cast aside by the ay things have developed in the past seven or so years.

Thanks you for the opportunity to provide our brief remarks. I will be happy to answer any questions.

Mr. FALEOMAVAEGA. Mr. Weidman, thank you for your testimony. I am going to remember that statement by Vince Lombardi. I thought it was the other one, too: "The only thing as good as winning is winning—" you could probably quote it better than I do. Anyway, Ms. Mirer.

STATEMENT OF JEANNE MIRER, J.D., SECRETARY GENERAL, INTERNATIONAL ASSOCIATION OF DEMOCRATIC LAWYERS

Ms. MIRER. Thank you. Congressman Faleomavaega and Members of the subcommittee, thank you for the opportunity to testify on this important issue of our forgotten responsibility to the victims of Agent Orange.

This issue has been with us for a long time without a comprehensive solution. I have submitted my written testimony. I am not going to read it, but I want to emphasize a few points.

First of all, because I am a lawyer, and I am involved in a case that involves the Vietnamese victims, I do have some views on the legal issues and whether——

Mr. FALEOMAVAEGA. Ms. Mirer, I did not want to interrupt you. I have nothing against lawyers except I think it was William Shakespeare who said, "The first thing we do is we kill all of the lawyers."

Ms. MIRER. Well, actually, that is taken out of context. He said, "If we want pure anarchy, then we kill all of the lawyers," but that is another issue. Nonetheless, I can agree with you on at least some aspects of that.

What I do want to do is talk about the legal issues a little bit because I think the legal does inform the moral, and I do not think the question of how we came to use Agent Orange has been specifically addressed in these hearings, and I do want to indicate that there actually was a legal opinion that was sought by President Kennedy, that there actually was a dispute between the Department of Defense that wanted to use this nice chemical weapon to destroy crops——

Mr. FALEOMAVAEGA. Ms. Mirer, I did not mean to interrupt you again. Can you provide those two documents for the record, that you have just said about President Kennedy, and there was another opinion also at the time? I would be delighted to have your assistance in making sure that we get those documents.

Ms. MIRER. I will work with the committee and provide all of the documents because many of them now are in the lawsuit, and they are public record so that there is no question about them.

Mr. FALEOMAVAEGA. Thank you.

Ms. MIRER. The first thing, though, is that, in 1945, just so that you know, we were contemplating using chemical agents to defoliate in the Pacific Theater against the Japanese. We asked for a legal opinion as to whether or not using those kinds of agents was legal, in part, because the United States has ratified something called the "Hague Convention of 1907," which, among other things, outlaws the use of poison and poisoned weapons in war.

Now, because it is a ratified treaty, under Article VI, Section 2, of our Constitution, it is actually a domestic law. It is not just international law; it is domestic law.

Mr. FALEOMAVAEGA. They outlawed the poison, whatever that you mentioned, but I understand that they used mustard gas during World War I.

Ms. MIRER. Right, and after World War I, there was an attempt to prosecute the Germans for doing that, using the Hague Convention, even though, politically, it was not feasible at the time. Nobody conceded that it was not a violation of the Hague Convention or prior conventions that existed prior to Hague which Hague codified, and those include the Lieber Code of 1863, the Brussels Declaration, the Oxford Manual, and even the U.S. Field Manual for the U.S. Army.

So the fact that we used mustard gas, not "we," but the Germans did, and then there was retaliation, does not, in my view, undercut the fact that Hague still is the existing law, and it is the law that should be followed that relates specifically to the use of a chemical that they knew was a poison, and, from our perspective, even though it was used as an herbicide, when you put poison in an herbicide you fundamentally change its character, and that is really the thrust.

What Cramer said, just so that it is clear—he was the head of the Judge Advocate General Corps—was that you could use herbicides, although he conceded that, in Japan, you could use them because, even though they are poisoning crops, and that is a poison, the Japanese will not be able to come back at us because they used poison against the Russian dogs in the Russo-Japanese War.

But, on the safe side, if you are going to use these kinds of weapons, or these kinds of materials, they can be used as long as they are harmless to man and as long as they have been tested to know that they are not going to hurt the land, soil, animals, people, either directly through it application or indirectly through ingesting.

Now, the fact is that, in 1961, when President Kennedy requested a legal opinion, Dean Rusk was hostile to the idea of using these chemicals, thinking that it was going to create exactly what you said, hostility among our friendly people in South Vietnamese against us for using these agents. So he used, and, in fact, it was very limited use that they wanted to do on supply lines——

Mr. FALEOMAVAEGA. So he was overridden by Secretary McNamara, obviously.

Ms. MIRER. Well, basically, what he did was he came in with Cramer and said, "We endorse this. You can use these things, but they have to be harmless to man. They have to be harmless to individuals." Well, they never were tested, never tested, and, in fact, there have been books written about this. It is cited in my testimony that the Department of Defense, which actually knew that dioxin was a very terrible chemical and, in fact, had rejected use of dioxin directly as a chemical agent because it was too dangerous, they never even tested it on a mouse.

Mr. FALEOMAVAEGA. Did it ever occur to our officials in the Pentagon that our own men and women in uniform were also being exposed to this?

Ms. MIRER. Well, yes and no. I think, in reality, they did not think about it much. I think there was this view of we have these chemicals, and better living through chemistry, we can accomplish a military goal, et cetera. But there is no question that, and I am going to tell you, I am biased on this, that there was violation of the law, the Hague Convention, when we used these chemicals.

Now, I do want to say that there was going on during the sixties, and understand the highest years of using these chemicals were from 1966, 1967, 1968, and 1969—in 1965, as you noted in your opening statement, Dow convened a meeting with all of these chemical companies to try to see if they could limit their dioxin in their product because, internally, their own research was showing something very horrible, and V.K. Rowe, who was the head toxicologist at Dow, has said he could not find a level below which you were not getting liver damage in rabbits. So they knew.

Now, the next issue, then, is what happened is that the United States was testing, through the Bionetics Laboratory, the agents that were being used, and they were coming up with horrific results, and instead of stopping it, they suppressed the study until 1969 and thereafter when it was leaked by Nader to Professor Meselson, and then it came out.

As a result of the animal data, not epidemiology, animal data, we stopped using it. It was banned, both nationally and internation-

ally, and I think that is an important point, that it was because of animal data, not all of this human epidemiology we are talking about, that we stopped using it.

Now, what has been the impact? I know there has been a lot of testimony about the impact on United States-Vietnamese relations, and I have been to Vietnam many times because my clients are Vietnamese. In fact, this is the last ghost of this war, and there is a documentary film with that title, and it is based on the statements by U.S. State Department officials, which make that claim that this is the last issue that needs to be resolved. But let us talk about some of the things that are the result or the legacy of not testing.

First of all, what is really horrible to me is that it did not have to be there. The chemical companies knew how to create these agents in a manufacturing process that would have virtually eliminated the dioxin. There is the Bohringer method. It was a slow process, low heat, and you could virtually eliminate the dioxin, and the dioxin had nothing to do with defoliation. So it absolutely had no military necessity whatsoever. That, to me, is one of the major tragedies.

The other thing is that we used it, and I think, according to Jeanne Stellman and the papers that have actually come out as a result of some studies on the exposure assessment, about 10 times the concentration was used in Vietnam as was used to do weed killing in the United States. This is one of the reasons why we are seeing the kinds of results from Hatfield and their people.

The other thing that is fairly new is that we now know, or the scientists are now knowing, that dioxin acts like a hormone, and there are various receptor cells in the DNA that are called the "aryl hydrocarbon receptors," which dioxin will go to because the cell thinks it is a hormone that it needs, and it then gets into this cell, and that is when the DNA damage happens. This is something that is relatively new in terms of understanding the mechanism of how dioxin works, and this is a very important issue in terms of future studies and evaluation.

I am not going to go into what the dialogue group has found because they have already been here and testified, but it seems to me that, clearly, there is an immediate, immediate need to clean up these hot spots because it is going to continue to develop in the environment. You have bio-accumulation in the fish, in the food chain, and they continue to accumulate the dioxin in the food chain, which is going to continue for third, fourth, fifth generations that are going to be seeing these birth defects. We are now seeing them in the third generation.

Now, the bottom line is that all of the soldiers, and now there are claims being made in Korea, New Zealand, and other places where our allies were—these things have to be resolved. They have to be resolved quickly, and I applaud you, and I applaud the committee, for taking this on. Whether we can all sit down in a room with the chemical companies, the United States Government, and see if we can come up with a reasonable solution; that is something maybe for a later day, but I think this hearing certainly starts that process, and I would agree with a number of my colleagues on some of their suggestions, but, frankly, I want to thank you so

much for starting this process. Thank you, and I will answer any questions.

[The prepared statement of Ms. Mirer follows:]

PREPARED STATEMENT OF JEANNE MIRER, J.D., SECRETARY GENERAL, INTERNATIONAL ASSOCIATION OF DEMOCRATIC LAWYERS

Congressman Faleomavaega, members of the Subcommittee, thank you for the opportunity to testify before you on the important issue of our forgotten responsibility to the victims of Agent Orange. This issue has been with us for a long time without a comprehensive solution. We know that after the spraying, exposed Vietnamese farmers became sick and died. They produced children with horrific birth defects. We know that US and other allied veterans also got sick and sought compensation. Today untold numbers of US, Korean, Australian, and New Zealanders who fought with the US are sick and dying from dioxin related disease. More pointedly though, the millions of intended victims of the spraying, the Vietnamese citizens, are still suffering exposure to the dioxin in many places, in particular hot spots around former US military installations. The Vietnamese government does not have the resources to clean up these hot spots and provide the kind of medical and other services or financial assistance to the victims in Vietnam. Today's hearing we hope will explore possible remedies which can be developed to right a colossal wrong.

In my testimony I will try to discuss what is known about the scope of the damage and the needs of those affected for relief and assistance, but as a lawyer involved in the case filed by the Vietnamese victims against the chemical companies my emphasis is on the Vietnamese victims and an understanding of the legal issues which would support legislation to make sure these victims are not forgotten any longer. That is, my testimony will focus on the reasons why the government has more than a moral obligation to ensure the victims of Agent Orange are provided help.

Agent Orange and the dioxin it contained continues to impact the people and environment of Vietnam. It has been called the "Last Ghost of War"[1] and represents the last impediment to full reconciliation between the United States and Vietnam.

LEGAL ANALYSIS

The first question, therefore, is did the United States violate the law in deciding to use these agents in Vietnam?

The answer to this question is most certainly, yes.

In deciding to use defoliants in Vietnam the United States Government failed to consider its obligations under the Hague Convention of 1907 on the Laws and Customs of War, which categorically prohibits the use of poison or poisoned weapons in war. The United States Government also failed to abide by customary international law which also bans poison or poisoned weapons in war.[2]

What do I mean by this statement?

The record evidence which was produced in the cases filed by the United States veterans and the Vietnamese victims shows both that (1) the government was given legal advice that it could not use herbicides or defoliating agents which were harmful to man, animals or soil, or if they poisoned people directly or indirectly through ingestion, (2) that the government ignored this legal advice in using untested chemicals which they knew or should have known had some toxic effects, and (3) they suppressed the report which showed the toxic effects of these chemicals for several years before banning their use both internationally and domestically.

More specifically, in late 1961, President Kennedy approved a joint recommendation of the Departments of State and Defense to initiate, on a limited scale, defoliant operations in Vietnam. Initially, the aerial spraying was to take place near Saigon; its purpose was to clear the thick jungle canopy from around roads, power lines and other lines of communications in order to lessen the potential of ambush. There was also to be some hand spraying from the ground around gun emplacements and the like to reduce surprise attacks and maintain open lines of fire.

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[1] The Last Ghost of War is the title of a full length documentary made by film makers Janet Gardner and Pham Quoc Thai which documents the issues. The name is based on the statement of former American Ambassador to Vietnam Raymond Burghardt once said that Agent Orange/dioxin issues were the last testy problem in American-Vietnamese relations

[2] Prior to being codified in treaty form in the Hague Convention of 1907, the use of poison or poisoned weapons in war had been banned by the Lieber Code, the St. Petersburg Declaration of 1868, the Brussels Declaration of 1874, and the Oxford Manual of the Laws and Customs of War, of 1880 and the Hague Regulations of 1899..

The use of defoliants for any other purposes other than clearing for roads or lines of communication *was opposed by the State Department, in particular, Secretary of State, Dean Rusk on the ground that use of such chemicals would alienate those Vietnamese that the USG wanted to remain friendly to its ally in South Vietnam.* Others in the Department of Defense sought to use these defoliants against crops available to the Viet Cong, then considered a small insurgency.

Kennedy requested a legal opinion as to the legality of the use of defoliants as weapons. The opinion provided by Rusk related to the very narrow initial proposal for use in clearing communication and transportation routes. The opinion provided by Rusk relied almost exclusively on the 1945 opinion authored by Major General Myron Cramer, the Judge Advocate General who wrote a similar opinion regarding a proposal by the military to use defoliating agents/herbicides against the Japanese in the Pacific theatre during World War II. This use had been proposed to both deprive cover and food to the Japanese on the Pacific Islands.

While defoliating agents were not used against the Japanese, Cramer evaluated, inter alia, whether the use of such weapons violated the ban on poison or poisoned weapons outlawed by Article 23 of Hague Conventions of 1907 which the United States had ratified.[3] Cramer's opinion made the very important point that because the chemicals destroyed plants they could be considered a poison, outlawed under Hague. But he did not think the Japanese would be able to use this argument effectively against the United States because the Japanese used strychnine to kill Russian Military dogs during the Russo Japanese war.[4] *In other words, the use of herbicides could be considered outlawed by the prohibition against the use of poison in war, but the US would not be called to account by an equally offending adversary.* In the end, Cramer opined that absent considering poisons which destroyed plants a poison which violated the laws of war he did condition the legality of their use on whether such chemicals produced poisonous effects upon enemy personnel, either from direct contact or from ingestion of plants and vegetables which have been exposed thereto. *If they poison directly or indirectly they are not permitted under international law.*

Cramer further based his opinion on the assumption that the contemplated agents were not toxic. He noted, "whether [the] agents used as contemplated are toxic to such a degree as to poison an individual's system, it is a question of fact which should definitely be ascertained. Should further experimentation show they are toxic to human beings, I will be pleased to express my opinion on the facts which may be presented for consideration."

Rusk gave the legal opinion to President Kennedy which allowed for the limited use of herbicides, but it was based on the understanding that the herbicides which were going to be used are not harmful to humans, animals or the soil, that is, are harmless to personnel or animals, and are the same kind that are used by farmers against weeds.[5]

We know from history that the admonition from both Cramer and Rusk as to the safety of these herbicides proposed for use was totally ignored. While there is significant information that the US military wanted a completely safe defoliant, their actions belied that desire. At the Defense Department's First Defoliation Conference to review Vietnam spraying operations, "Brigadier General Fred J. Delmore alerted the company representatives, including those from Dow and Montsanto, that there was a need for the defoliants to work in a quicker fashion and that the material

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[3] As a ratified treaty the Hague Conventions are part of domestic law pursuant to Article VI §2 of the United States Constitution which states:

This constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States shall be the supreme law of the land; and the judges in every state shall be bound thereby, any thing in the constitution or laws of any state to the contrary notwithstanding.

[4] Although the Russo-Japanese war predated the 1907 Hague Regulations, as noted above poison or poisoned weapons were already banned.

[5] By late 1962 approval was granted for offensive use of herbicides to destroy planted fields and crops suspected of being used by the Viet Cong. The use of herbicides for crop destruction peaked in 1965 when 45% of the total spraying was designed to destroy crops. Various herbicides were used for defoliation and crop destruction spraying in Vietnam including Agent Blue (cacodylic acid), Agent White (a mixture of 80% tri-isopropanol amine salt of 2,4-dichlorophenoxyacetic acid (2,4–D) and picloram), Agent Purple (a formulation of 50% n-butyl ester of 2,4–D, 30% n- butyl ester of 2,4,5-trichlorophenoxyacetic acid (2,4,5–T) and 20% isobutyl ester of 2,4–D), Agent Green (100% n-butyl ester of 2,4,5–T) and Agent Pink (60% n-butyl ester of 2,4,5–T and 40% isobutyl ester of 2,4,5–T) After 1964, Agent Orange, a 50–50 mixture of the n-butyl esters of 2,4–D and 2,4,5–T, was one of the most widely used herbicides, along with Agent White and Agent Blue. See A.L. Young, J.A. Calcagni, C.E. Thalken & J.W. Tremblay, *The Toxicology, Environmental Fate, and Human Risk of Herbicide Orange and its Associated Dioxin*, USAF OEHL Technical Report (Oct. 1978).

used in the defoliants must be both 'perfectly innocuous to man or animals but able to do its job." Additionally, Albert Hayworth, chief of the Fort Dietrich program coordination office told those attending the conference: 'It goes without saying that the materials must be applicable by ground and air spray, that they must be logically feasible, and that they must be nontoxic to humans and livestock in the affected areas.'" See Doyle, Jack, "Trespass Against Us: Dow Chemical and the Toxic Century," Common Courage Press, 2004 p. 56.

Dow officials, in response, and extrapolating from its experience with agricultural herbicides told General Delmore in 1963: "We have been manufacturing 2,4,D and 2,4,5,T for over ten years. To the best of our knowledge none of the workmen in these factories have shown any ill effects of working with these chemicals. Id at 56. When Dow workers began suffering from chloracne after a 1964 industrial accident at its Midland plant, this was not reported to the government. Id. p 57.[6]

Prior to its use in Vietnam, the U.S. military had not undertaken any Agent Orange toxicological testing of its own before ordering and deploying the chemical. The approval by the Army Chemical corps scientists of Agent Orange as safe was based on data received directly from V.K. Rowe, Dow's chief toxicologist. Id. at 57.

According to Thomas Whiteside in his book "The Pendulum and the Toxic Cloud" the "American military, having developed 2,4,5,T as part of its biological warfare program in the years following the Second World War, unhesitatingly employed it during the war in Southeast Asia. . . . without the Pentagon's scientists ever having taken the precaution of systematically testing whether the chemical caused harm to the unborn offspring of as much as an experimental mouse." (Whiteside is quoted Id. at p. 57).

Nonetheless the chemical companies which sought to protect a lucrative government contract and lucrative domestic business failed to disclose to the government the results of their internal testing. See April 19, 1983 New York Times article entitled"1965 Memos Show Dow's Anxiety on Dioxin." The memos referred to were part of those filed in the US Veterans case and mentioned to some extent in the various decisions. These memos clearly show that Dow had described the results which showed severe liver damage in rabbits and the fact that Dow could not find a a no effect level in the rabbits regardless of the level of exposure.

As reports of increased miscarriages, stillbirths and birth defects in Vietnam as well as domestically began to gain the attention of US scientists, it turned out that the National Cancer Institute had already (in 1962) contracted the Bionetics Research laboratories of Bethesda Maryland to conduct cancer studies on a number of pesticides including 2,4,–D and 2,4,5–T. The study was to be reviewed by a "blue ribbon" commission of scientists." When in the summer of 1965 Bionetics tests on female mice and rats showed that 2,4,5,–T was a powerful teratogen, Dow objected that they had used a dirty sample. Id at 58.[7]

Unfortunately, through a combination of industry pressure and White House concern that the report would feed growing anti-war sentiment, the report was not made public until 1969.[8] When the Bionetics Study was eventually made public, the government ordered restrictions and later a ban on its use both in Vietnam and domestically.

The legal analysis above alleged in the case filed by the Vietnamese victims claims under the Alien Tort Statute which allows aliens to seek damages in tort for violations of the law of nations and treaties. Unfortunately, in light of the decision in *Sosa v Alvaraz-Machain* 542 U.S. 692 (2004) courts appear to be reading the statute and claims for which remedies may be sought much too narrowly and the case

[6]Doyle in this work, also claims that in 1963 the Advanced Research Projects Agency did hire the Institute for Defense Analysis (IDA) to review the toxicity of all the herbicides proposed for use in Vietnam. The IDA, however, reported that it could not guarantee if any of them would be safe for military use, noting the military penchant for using over kill concentrations, with possible effects on exposed populations and domestic animals. Id at 56. It is also important to note that Monsanto and Diamond Alkali had accidental spills of 2,4,5,–T, in 1949, and 1954 respectively which resulted in injuries to workers from both Chloracne and liver problems.

[7]Although Dow spokespersons later claimed that if Bionetics had used its chemicals rather than a sample from a competitor which had a high impurity level in its manufacturing, when Dow's samples were tested in 1970 by the National Institutes of Environmental Health Sciences and The Food and Drug Administration, using samples that contained less than one part per million of dioxin, the tests still showed significant teratogenic effects. Id. at 60.

[8]In July 1969, Ralph Nader received a leaked copy of the report and gave it to Dr. Mathew Meselson, a Harvard University Biologist. This release triggered actions to stop the spraying which were eventually successful. Id at p 58.

has thus far not been successful.[9] Indeed, in the opinion of the Second Circuit Court of Appeals, the panel of judges referred to last year's $3 million congressional appropriation for environmental remediation in a manner suggesting that Congress has the obligation to provide the relief sought by the Vietnamese in court.

THE TRAGEDY OF NOT TESTING THESE AGENTS BEFORE USING THEM

The Cramer Opinion relied on by Dean Rusk and by extension President Kennedy required there to be research on the effects of defoliating agents before they were used. Ignoring this advice has had disastrous consequences for millions of people throughout the world inside and out of Vietnam. Below are several items which need to be understood about the impact of the failure to follow the Cramer opinion and the refusal to stop using these weapons as soon as scientific evidence regarding their use began emerging from the Bionetics study.

1. Beyond the scope of the environmental and human disaster which has been documented, the tragedy of the use of these chemicals before they were tested is that the dioxin in 2,4,5–T did not have to be present. It is an impurity in 2,4,5–T which could have been virtually eliminated had the chemical companies manufactured it at low temperatures over a longer fabrication period. It is known that dioxin did nothing to add to the defoliating characteristics of the other compounds, so there was no military reason in the world for the dioxin to be present in these agents.

2. There is no doubt that in Vietnam the agents were sprayed in at least 10 times the concentrations as they were in the US for weed control function. As noted in the seminal study by Jeanne and Steven Stellman et. al. from Columbia University, entitled: The Extent and Patterns of usage of Agent Orange and other Defoliants in Vietnam," (Nature Volume 433, 17 April 2003, pp 681–687), millions of Vietnamese (between 2.1 and 4.8 million) would have been present in the more 3,181 hamlets when the spraying occurred. It is estimated that the equivalent of 600 kilograms of pure dioxin was sprayed or spilled during the Vietnam war. (See report of seven year study conducted by Canada's Hatfield Consultants, Wayne Dwernychuk).

3. It is now known that dioxin acts like a hormone. It gets to the receptors in the cells of a developing fetus before the normal hormones and directs the cells to do abnormal things. The cell's nucleus is protected by a "defense perimeter" which has the role of preventing the molecules not having required structure from entering the nucleus and therefore interfering with the genetic heritage. But, within cellular cytoplasm (i.e. the whole of cell's elements except the nucleus) dioxin blends with a component, naturally present in every cell, the aryl-hydrocarbon receptor and will be able to enter the cellular nucleus' defenses, "passing itself off " as a hormone. It is that complex dioxin-receptor which will mix-up the hormonal messages of our endocrinal system (the whole of glands with internal secretion, throwing in blood the produced materials called hormones) and will activate some parts of DNA, areas so-called "dioxin sensitive" and therefore produce toxic effects.

Even before the mechanisms of action were known, studies had shown some correlation between exposure to Agent Orange and many diseases. This has allowed the US government's Veterans'http://veteransinfo.org/id4.html Administration to officially recognize 13 medical conditions linked to Agent Orange in soldiers who were exposed. These veterans are entitled to disability payments and medical care. (See http://veteransinfo.org/id4.html). The diseases include leukemia, Hodgkins and non-Hodgkins lymphoma, cancer, dermatological complications, and mental retardation, as well as type II diabetes. IARC (the International Agency for Research on Cancer, a part of the World Health Organization) has recognized dioxin as a known human carcinogen since 1997.[10]

4. In the southern part of Vietnam within the Agent Orange spraying zone, it is estimated that over 800,000 people continue to suffer serious health problems and are in need of constant medical attention and untold thousands have already died. As many as 2–4 million Vietnamese are thought to be suffering from the effects of

[9] The Vietnamese plaintiffs' case was filed on January 30, 2004 before Sosa was decided. It was dismissed by the District Court in March of 2005. The Court of Appeals affirmed on February 22, 2008, and rehearing was denied on May 7, 2008. There will be a petition to the Supreme Court for review. The Vietnamese plaintiffs believe that their case should have prevailed even in light of the Sosa decision, but will not discuss this matter in this testimony.

[10] American veterans who were exposed to Agent Orange during the Vietnam War first filed a class-action lawsuit in 1979, which sought to represent 2.4 million veterans. In 1984, seven companies that manufactured Agent Orange agreed to pay $180 million in compensation to U.S. veterans or their next of kin. Since then Congress provided some relief in 1991 with the passage of the Agent Orange Act. Untold billions have already been paid to hundreds of thousands of US veterans.

exposure to Agent Orange, according to Kenneth Herrmann, director of the Vietnam Program at the State University of New York at Brockport.

Recently the Dialogue group reported that it will cost at least $14 million to remove dioxin residues from just one site around the former US airbase in Danang. The cost of a comprehensive clean-up around three dioxin hot spots and former US bases is estimated at around $60 million. The $3 million pledged by US Congress last year is a pathetically inadequate amount set against the billions spent in waging war and deploying weapons of mass destruction. Furthermore the $3 million has not been distributed.

The recent study of one Agent Orange hot spot, the former US airbase in Danang, (http://vn-agentorange.org/military 20070615.html) http://vn-agentorange.org/military_20070615.html found dioxin levels 300 to 400 times higher than internationally accepted limits. The study confirmed that rainwater had carried dioxin into city drains and into a neighboring community that is home to more than 100,000 people. Dr Arnold Schecter, a leading expert in dioxin contamination in the US, sampled the soil around former US airbase in Bien Hoa in 2003 and found dioxin levels that were 180 times above the safe level set by the US environmental protection agency. The US government was aware of these findings in 2003. In terms of being able to test the soil and the water, each test costs about $600 to $1,000. To do widespread testing is cost prohibitive for the Vietnamese.

5. Veterans from the other countries who served with US soldiers in Vietnam are now seeking and in some cases receiving compensation for their injuries. The Vietnamese government and the organization representing the victims, the Vietnam Association for the Victims of Agent Orange (VAVA), try to provide assistance to the victims they have identified in in various amounts and for different services. But, the reality is, despite significant development in Vietnam, the government does not have the resources to address this public health crisis either for treatment, monitoring or clean up.

Based on the above legal analysis, and the high cost of remediation, the United States has an obligation to provide assistance to the Vietnamese. How this is done should be the result of ongoing congressional investigation and legislation. This hearing is an important first step in this process. I applaud the subcommittee for holding this important hearing. Hopefully it will be the beginning of a process which will result in the United States stepping up to its forgotten responsibility to the victims of Agent Orange. Thank you.

Mr. FALEOMAVAEGA. Thank you very much, Ms. Mirer. I have so many questions, I do not know where to begin or how I should begin, but I must say that all of your testimonies and comments have been very, very substantive, and I hope, not only in trying to build a record for this whole effort—I know that I am going to get criticism by some of my colleagues that say, "Why are you opening up Pandora's box?" or "opening up a hornet's nest," if you will, because of this.

I reviewed this DVD called "The Last Ghost of War" last night, and very, very telling, and this something that I hope the American public will become more aware of, of this issue of Agent Orange.

Dr. Nguyen, since you are the most distant of our witnesses that came this morning, I just have some questions. In your experience as the gynecologist and being involved and seeing personally yourself the birth defects of many of the children of Vietnam, you are talking about a span of about how many years have you witnessed this, the time that you became a doctor there in Vietnam?

Dr. NGUYEN. Mr. Chairman, I have been working there since 1969 as a doctor, and I was an internist from 1967 through 1969, and then I was a student who came to this hospital to deliver the babies since 1963. It makes 45 years already I have been there in that hospital and witnessed many cases.

Mr. FALEOMAVAEGA. How many other doctors, besides yourself, are there in Vietnam who specialize or who are very, very cognizant of Agent Orange or dioxin presence in your patients and people who have been exposed to Agent Orange? I am just curious,

what kind of a nucleus are we talking about, the number of doctors or specialists or scientists in Vietnam who are involved in the Agent Orange project?

Dr. NGUYEN. There are many, Mr. Chairman, many, but I do not have the exact figure at the moment.

Mr. FALEOMAVAEGA. I do not have it, just approximate.

Dr. NGUYEN. A few hundred people; together we have conducted many surveys, many studies, case-controlled studies, for example, and also we have cooperated with Arnold Schecter in the U.S. and the other colleagues here in the U.S.

Mr. FALEOMAVAEGA. I do not want to go outside of Vietnam. I just want to know exactly what kind of structure that we have in place in Vietnam first. Well, for that matter, how much funding does the Government of Vietnam put into the Agent Orange project? I am curious.

Dr. NGUYEN. In terms of budget from the government for the research?

Mr. FALEOMAVAEGA. Everything. Everything and anything dealing with Agent Orange in Vietnam.

Dr. NGUYEN. In Agent Orange? We have, every year, about US$50 million for helping the victims only, the victims, and for the temporary cleanup of Bien Hoa Airport, the government has spent about more than US$5 million already, but not complete cleanup, start to clean up the Bien Hoa Airport.

I have my colleagues here.

Mr. FALEOMAVAEGA. My office is going to be dialoguing with your Embassy here in Washington to submit.

Dr. NGUYEN. Yes.

Mr. FALEOMAVAEGA. I would want to know how much resource the Government of Vietnam is putting into this. As you know, I stated earlier to Secretary Marciel when I said, I am looking at the concept of a working-together, burden sharing, if you will. For one, I certainly do not want Vietnam to bear the full burden, but I think that maybe if we had the help of the United States Government, as well as the chemical companies, hopefully, or also our foundations that are willing to provide also assistance.

I am just trying to get a figure in terms of what kind of a priority is the Government of Vietnam—you know, we have a saying here in Washington: "If you want to know what your priorities are, look at the budget." If you have a billion-dollar budget, and you are only putting out $50 million for Agent Orange, that is not very convincing to us here in the Congress that Vietnam is very serious about the issue.

Now, this does not excuse my own Government suggesting that $3 million, or the $43 million that we have given, is to indicate also, yes, we think it is important, but we have a war in Iraq, we have got all of these other issues that we have to contend with. Maybe somebody from the Vietnamese Embassy is here in the hearing. I definitely am going to pursue this more in terms of exactly how much resource, and what kind of a priority is the Government of Vietnam putting on this because this is how I am going to make my case with my colleagues here in the Congress. It is like saying, "Well, where do we go from here?"

I know you are a medical doctor. You are not a statistician or someone that deals with the politics of all of this. I did not mean to burden you with this, but I was just curious.

But, at least from the medical side, how many teams of doctors do you have in Vietnam that are, on a daily basis, really looking into this problem and caring for the deformed children, the people with defects and all of this, as a result of being exposed to Agent Orange and dioxin?

Dr. NGUYEN. I think that——

Mr. FALEOMAVAEGA. Can you submit that for the record? Can you give us more details on how much of the medical resources—doctors, nurses, whatever? I just want to get a picture of what amount of resources has your government committed in addressing the issue of Agent Orange.

Dr. NGUYEN. Into the Agent Orange project.

Mr. FALEOMAVAEGA. Yes, just like what we are discussing here and what we are trying to do.

There are two phases. I am looking at this now: One, in terms of the health conditions, and one is environmental cleanup. Now, I think those are two basic areas that we want to kind of have a sense of division of who can do better and who can do best in perhaps providing for this kind of service and the cleanup.

But the dealing with abnormal defects, health conditions, another question, Doctor: How long is the life cycle of dioxin? Is it like plutonium with 10,000 years? Dioxin stays in the water, goes into our bodies, goes to our children and our children's children. How many years does it stay?

Mr. WEIDMAN. It is about every 7 years, it diminishes.

Mr. FALEOMAVAEGA. Mr. Weidman.

Mr. WEIDMAN. You referenced the Hatfield Report earlier. In their testing of the soil at the Tabat Special Forces Camp in the Allawi, which the Vietnamese call it—we called it the "ASHAU"—they found over 1,000 parts per billion. That is astronomical. That is after 30 years.

Mr. FALEOMAVAEGA. That is what I am trying to see. It has been there for 30 years, and it is still in existence.

Mr. WEIDMAN. It does diminish, though, in half every 7 years, but it is still a very great concentration.

Mr. Chairman, may I just comment a minute?

Mr. FALEOMAVAEGA. Please.

Mr. WEIDMAN. Taking our frame of reference for the kind of medical and scientific equipment we consider as a matter of course does not apply to Vietnam. They are struggling very hard to modernize their society. They do not have a system of public medical records, as an example, the way in which it exists in western countries, and they are moving the country very quickly. Their per capita income has almost doubled, but it is still one of the poorest countries in the world, and, despite that, they do their doggonest to provide health care to everybody. So it is that frame of reference.

When we visited the hospital in Danang a few years ago, they had an autoclave there that was 1934 vintage from the French that was still in use. Since then they have gotten a new autoclave, and part of the effort before is to have them have the scientific equipment. They have the minds, they have the energy, and they have

the skills, but they needed the equipment and the resources to get the equipment for things like a mass-gas spectrometer.

Prior to them getting it, it cost $1,100 a pop for one blood sample to do a mass-gas spectrometry in Germany and then have it shipped back. So it is out of the reach of even many American universities, and once again I come back to, unless the U.S. Government funds it. That is the only place where there are enough resources to do this kind of basic research, sir.

Mr. FALEOMAVAEGA. And, Dr. Nguyen, I apologize if I was too strong in my line of questions in terms of expecting all of this, and I appreciate Mr. Weidman's assistance in providing this information.

Professor Dalpino, I wanted to ask you, why were the terms of this issue off the table during the normalization process? I was here, and, I guess, because I was trying to get reelected, I do not know, in those years, of trying to figure out anything, being a back bencher for all of those years.

As it has been verified by Mr. Weidman, the two most important issues that came about as a result of the war are missing-in-action soldiers and the issue of Agent Orange. So being off the table, in terms of our negotiations for normalizing our relationship with Vietnam, it was considered a sensitive issue on both sides, but then we just left it there. Does that seem to be the way things went?

Ms. DALPINO. Thank you, Mr. Chairman. First of all, I have to say, my own assessment of the roadmap was that it was very asymmetrical, and one of the pressures, the sword of Damocles, that were over the Vietnamese Government's head was lifting the embargo, and so getting into a protracted issue would have been very difficult.

The issues that were of POW/MIA accounting, of release of people from reeducation camps, that sort of thing, and it tended to be more weighted toward the American side of war legacy issues. It really was not until the 1990s that scientific and humanitarian groups began to try to push this issue into the policy community, and it really was not until the early part of this decade that anything was done between the two governments on this at all.

Mr. FALEOMAVAEGA. I believe we have probably over 1 million Vietnamese-Americans living in our country. Has there ever been any assessments or monitoring done to the Vietnamese-Americans who live here with birth defects, birth abnormalities? There has been no study done, Mr. Weidman?

Mr. WEIDMAN. At VVA, we work very closely, and Dr. Linda Schwartz, who is now the commissioner of veterans' affairs of the State of Connecticut and on leave from Yale Nursing School, where she is a researcher, and several others of us worked with NAAVASA, the North American Association of Vietnamese-American Service Organizations, to prepare and submit with one of their board members, who is a full professor of medicine at Johns Hopkins, our unsolicited proposal. We worked with them to also respond to several RFPs, and all of those were rejected by NIH.

We keep in touch with NAAVASA, and we still——

Mr. FALEOMAVAEGA. What were the reasons why NIH has rejected the applications?

Mr. WEIDMAN. It was simply that there were no resources for that, and the reason why it lost out in the competition is they could always say, Well, somebody else was better, or somebody else has something more in our priorities at the moment. So it is like, why did not you get hired? Is it because you are a combat vet, or what is it? Does somebody actually have a better resumé and a better fit for the job? You know, it is one of those things. How do you prove that?

But, at any rate, they still have been unable to get any funding or to get anybody else to do a study specifically of the effects of Agent Orange on the Vietnamese-American community, to my knowledge, sir.

Mr. FALEOMAVAEGA. All right. You do not have to be a doctor or a scientist, but do you think, in layman's terms, if something could be done with our Vietnamese-American community associations, organizations throughout the country, and just by saying, "Hey, have there been any unusual results of Vietnamese children being born in this country?" that should give a red flag right there without even going through the CDC or any of those NIH studies, but just pure common sense, say, "Hey, you have got a problem here," and, systematically, the fact that it exists among the Vietnamese coming from Vietnam.

I am glad that you have noted the fact that NIH has rejected requests for studies on the impact, if any, of dioxin among the Vietnamese-Americans who moved from Vietnam and are living here. I am very curious, as I am quite sure that this is the kind of issue is so sensitive that even families do not even want to talk about it. But the DVD, shows how loving and caring the parents look after their children who are abnormal and who have all of these defects, and their existence is something, to me, ought to be an example to all of us here, as a society, and how much the people of Vietnam really look after their children with these deformities.

Mr. Turekian, you currently are a member of this dialogue. How long have you had this this forum or conference? Do you have it every year or 2 years?

Mr. TUREKIAN. Thank you, Mr. Chairman. I do believe it started last year, 2007. I joined the group earlier this year as we expanded the group to a five-and-five from a three-and-three, to include scientists and medical professionals, as well as——

Mr. FALEOMAVAEGA. My concern, Dr. Turekian, I do not want to study this thing to death. I think we need to produce some results, as I am sure, with all of the facts and data, I do not think we need to put some more niceties on it. Let us just call a spade a spade. If this is what happened, let us move forward.

But I really would appreciate the input of your study group and see what we can do now. Like I said, I am sure that some of my colleagues are going to be very critical of this effort on my part as chairman of the subcommittee, but I honestly believe this is the greatness of America for what it is as a nation. I do not think we can continue burying this issue and pretend like it did not happen, and I am going to use this phrase again. Let us prick the conscience of our national leaders, both in the administration, in the Congress, to make sure that we do something, at least on a humanitarian basis.

Ms. Mirer, I have every respect for our legal system, and your legal profession, but I am saying that this is something beyond being legal. Something could be legal and yet could be very immoral, if that is a better way of saying it, and I think we have got a moral issue here in this society that we need to address.

Dr. Nguyen, I am going to be working very closely with your Embassy here to see the submission of more data and information. We are trying to build a record here. We are trying to see where all of this is going to filter out. Hopefully, as Ms. Dalpino had stated earlier, we need a standalone legislation for this, and as massive the situation that we find ourselves in with all of this, having a laboratory—Vietnam is a laboratory itself. All we need now is to give them the tools and things so that they could do this themselves, as I am sure they will be willing to do it, if we just give them the tools and the opportunity.

I have so many questions, I do not know where to start, but I will say, this is not the last you are going to be seeing my ugly face.

Why are you pulling this out now? This is, I guess, to some, a done deal. We have already talked about it. I am saying we are past pointing fingers. I think now we are looking at from one human being to another human being. Let us help those poor people out there in Vietnam and even our own Vietnam veterans who have still been struggling with this issue and where our Government, civilian authority, has been giving us the runaround, and I think it is inexcusable.

That is the reason why we have oversight hearings. Our constitutional mandate and responsibility as a Congress, and I feel that we will fail in our responsibility if we do not bring this out into the open and for public discussion, not only for the better understanding of the American public because this is American taxpayers' money, and I think the average American just wants to know how the money is being spent. If it is spent for helping other human beings, I do not think any American will object to that, but that is only me.

I just cannot thank all of you enough for being here. Mr. Weidman and then Ms. Mirer.

Mr. WEIDMAN. Mr. Chairman, I have one question. When you were talking, and Ms. Mirer's testimony; we have done a lot of research in the last 10 years. We thought we knew Agent Orange pretty well until we started to dig into Project Shad and some chemical and biological testing, and we discovered, at the Kennedy Library in Boston, the Project 112. And Project 112, we were the first ones to start, and then, finally, DoD acknowledged it.

Project 112. As you know, former Secretary McNamara's penchant was for everything in neat, little things. What they did was take all chemical and biological and, we believe, pharmacological testing and put it under one rubric, and that rubric was Project 112. Included in that was the entire herbicides program, and where it remains.

So Fort Dietrich was in charge of all of this operationally from the start and that is how we discovered, and Ms. Mirer mentioned Dr. Jeanne Stellman—we, in fact, supplied Jeanne with that memo that it was 5.87. The argument had been, for years, what I mean

by that is it was shipped to Vietnam in a powder form, and it was mixed there by contractors.

They knew the stuff was dangerous, and they knew how to escape liability. We gave ARVNS the money to buy the stuff directly from the chemical companies. There was an ARVN officer who was just signing orders typed by American clerks——

Mr. FALEOMAVAEGA. Mr. Weidman, for the record, when you say "ARVN," it means the——

Mr. WEIDMAN. I am sorry. The Army of the Republic of Vietnam——

Mr. FALEOMAVAEGA. You and I know that, but, for the record, I just want to make sure that——

Mr. WEIDMAN. So that officer would sign off on the order, so we were not spraying it. We were doing it at a request of our allies. So it never was actually owned by the government, and the mixture, because it came in powdered form, the difference is 1.8 pounds versus what was actually the minimum, which was 5.85, and that is a hell of a difference, in terms of the strength of whatever it is that you are spraying.

The only point is, is that we have a great number of documents that talk about Agent Orange During the time it was part of Project 112, and it was only separated in 1969 because Henry Kissinger did not want to go back to the renegotiation in 1971 of the International Treaty on Chemical and Biological Weapons with us having Agent Orange because it was not just deforestation; it was also crop destruction, which is specifically illegal. So he wanted it out of the Project 112. So, on paper, they moved it all away out of there, and that is how it became separated.

I am not an attorney either, Mr. Chairman. I am just a Vietnam veteran with an attitude, but the——

Mr. FALEOMAVAEGA. The attitude of a pit bull, if I might say.

Mr. WEIDMAN. Thank you, sir. I take that as a compliment.

Mr. FALEOMAVAEGA. Absolutely.

Mr. WEIDMAN. But the point is, we have a great number of documents, and if you want to do a follow-up hearing on that, we will be more than pleased, not only to submit those for the record, if that is acceptable to you——

Mr. FALEOMAVAEGA. I will give you every assurance, Mr. Weidman, the record is going to be open for the next 10 days and beyond.

Mr. WEIDMAN. Thank you, sir.

Mr. FALEOMAVAEGA. For any records, any materials that each of you or any of you would like to submit, they will be made part of the record, absolutely.

Mr. WEIDMAN. Thank you very much, sir.

Mr. FALEOMAVAEGA. All right. Ms. Mirer?

Ms. MIRER. I just want to follow up on that, which is the study that Jeanne Stellman and her husband did was seminal. It came out in 2003, and what they did was track every sortie that was done and what we have records for, and they have come up with an exposure assessment which shows between 2.1 and 4.8, or 4 million Vietnamese potentially exposed, in over 3,000 hamlets. That data is actually in a database that could be used for study.

Mr. FALEOMAVAEGA. Dr. Turekian? Professor Dalpino?

Dr. Nguyen, thank you again so much.

Ms. MIRER. Could I just add one thing?

Mr. FALEOMAVAEGA. Sure.

Ms. MIRER. You do know that there is this case pending, and it is actually——

Mr. FALEOMAVAEGA. Yes, I know. It is still pending in the Court of Appeals.

Ms. MIRER. Actually, the Court of Appeals, yesterday, turned down our request.

Mr. FALEOMAVAEGA. So you are going up to the Supreme Court.

Ms. MIRER. Yes, we are, but they did mention, in a footnote in the opinion, that they really thought, indirectly, that Congress should address this, by pointing out that Congress had already appropriated this $3 million.

Mr. FALEOMAVAEGA. It does not take a rocket scientist, in my humble opinion, that this is a matter of public policy. It is not a question of ethics or morality or even legalities. It is a matter of public policy. Our Government made the decision. Our leaders made decisions, and, like I said, unintentional purposes, the consequence is that now we have to face up to and resolve the problem.

Thank you so much for being here, and, again, please do not hesitate to keep in touch with my office. This subcommittee is going to continue to pursue this issue, and some people I know are going to be very critical of this effort on the part of the chairman to do this, but that is why I am chairman. I am supposed to do this.

From one veteran to another fellow veteran, Mr. Weidman, let us make sure that the candle does not burn out on this issue. I think we ought to pursue it in every way possible, not to accuse anybody. I am not into that. Let us just solve the problem.

I think, Dr. Turekian, your idea about having a lab; I cannot see why this would be such a horrible thing to do. I think we can find out some solution to give the tools to the scientists and the people that can go there and really do a better job than what we have been doing.

I do not know who it is that is trying to circumvent or suppress or whatever it is that they think that the Agent Orange is not to be discussed. For what reason? I guess, because of my own personal experiences, I am a byproduct of this, and, for all I know, I might have dioxin in my own body, and I do not know it because I was right there in 1967 and 1968. So who knows? I might get a little benefit from the Veterans Administration, if I apply. I do not know.

But, ladies and gentlemen, thank you very much. The hearing is adjourned.

[Whereupon, at 12:32 p.m., the subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

STATEMENT FOR THE HEARING RECORD BY THE VIETNAM ASSOCIATION FOR VICTIMS OF AGENT ORANGE/DIOXIN

INTRODUCTION:

The Vietnam Association for Victims of Agent Orange/dioxin welcomes the opportunity to submit a statement for the hearing of the Subcommittee on Asia, the Pacific and the Global Environment of the House Foreign Affairs Committee on *Our Forgotten Responsibility: What Can We Do for Victims of Agent Orange*. We thank the Chairman, The Honorable Eni F.H. Faleomavaega, for his leadership in holding this hearing and his dedication to the cause of justice for Agent Orange victims in Vietnam, the United States and globally!

VAVA—SPEAKING FOR VIETNAM'S AGENT ORANGE VICTIMS:

The Vietnam Association for Victims of Agent Orange ("VAVA") is the organization representing all three million Vietnamese victims of Agent Orange and other related chemical agents (for example, Agent Purple, Blue, White, Pink, Green, etc.) Established in 2003, VAVA has chapters at the national, provincial, district and commune levels. At present there are VAVA chapters in 50 provinces and hundreds of districts and communes. VAVA's work includes, among other things. encouraging victims of Agent Orange in overcoming the difficulties of daily life, providing aid and services to victims, their families and their communities and raising public awareness. VAVA is, first and foremost, the voice of the victims, representing them and providing expertise and advice on their behalf with the Vietnamese government and in international forums. VAVA maintains relations with supporting groups in many countries

Many VAVA leaders and members are victims of Agent Orange and suffer from a variety of illnesses and disabilities as a result of their contact with the deadly chemical Dioxin contained in Agent Orange.

Many Vietnamese families have lost their loved relatives. Many others have given birth to severely disabled babies whose lives are doomed from birth. Yet, Vietnam's Agent Orange victims live with dignity and hope. They are doing everything possible to make their lives better and to contribute to their society. Through VAVA, they are organizing for mutual assistance—helping each other to develop new and innovative ways of taking care of disabled children, developing income generation projects for families struggling under the burden of several sick and disabled members and raising funds for housing, training and education.

In partnership with VAVA, the Vietnamese government is providing monetary and social assistance to Agent Orange victims throughout the country and working to clean up a number of toxic hot spots where Dioxin has remained in the land and water. The Vietnamese people are involved in helping Agent Orange victims through donations from individuals, organizations and businesses. Thousands of students, veterans and workers are engaged in volunteer activities. From the provision of monthly financial aid to the construction of treatment and rehabilitation centers and environmental remediation, VAVA is leading in improving the lives of three generations of Agent Orange victims.

THE NEEDS OF VIETNAM'S AGENT ORANGE VICTIMS

The suffering of Vietnam's Agent Orange victims cannot be alleviated without much greater resources than the people and government of Vietnam can provide. Agent Orange victims live in nearly every province in Vietnam. They are veterans of the both the Peoples Army of Vietnam, the National Liberation Front and the

Army of the Republic of Vietnam (the forces allied with the United States during the war.) They are civilians and, increasingly, they are children born after the end of the war.

People who were exposed to dioxin laden Agent Orange endure many life threatening and chronic diseases and disabilities—from cancers, reproductive disorders, immune deficiency, endocrine deficiency and nervous system damage. Because Dioxin alters the genetic structure, several generations of the children and grandchildren of those directly exposed suffer from developmental and physical disabilities including terrible birth defects.

One of the saddest results of Agent Orange is the death of infants *in utero*, many with horrific malformations. Numerous families cannot give birth to children or give birth to several children with serious birth defects. Despite universal prenatal care, most of hospitals in Vietnam have not had ediquate effective equipments to test pregnant women for birth defects. Families, many of whom have two, three or even four members who are afflicted are the poorest in Vietnam. Caring for severely disabled children prevents many parents from being able to work and many exhaust their savings looking for viable treatments. As the first generation of those exposed to Agent Orange ages, children and grandchildren with crippling disabilities face a future without caregivers. These children will need lifetime treatment and assistance in the activities of daily living.

Many areas of Vietnam have centers for treatment, rehabilitation and housing of Agent Orange victims, but there are not enough facilities for the number of victims who need them. They also lack sufficient medical and rehabilitation equipment and other resources.

In areas where Agent Orange was heavily sprayed or stored during the war by the U.S. military, contamination of the environments results in continuing exposure of civilians to Dioxin. In a number of "hot spots" such as Da Nang, Bien Hoa and A Luoi, Dioxin remains in the lakes and the soil and continues to cause illnesses to the residents who eat foodstuffs thereof

Even those far from our country are not immune from the ravages of Agent Orange exposure during the war. Vietnamese Americans, many of whom have been in the U.S. decades, also suffer the effects of Agent Orange although their situation has received virtually no attention.

JUSTICE FOR VIETNAM'S AGENT ORANGE VICTIMS

Because the effects of Agent Orange are a public health and environmental tragedy for the Vietnamese people, the Vietnam Association for Victims of Agent Orange/Dioxin is seeking justice for the millions of Agent Orange victims we represent.

The American Public Health Association recognized the serious public health consequences of Agent Orange for Vietnam in a 2007 policy statement recommending that, "the US government and involved chemical companies provide resources for services for the disabled in areas where dioxin victims are concentrated; provide medical services and nursing services for those harmed by Agent Orange; and develop community support organizations, including health care and educational and chronic care services and medical equipment to care for American and Vietnamese people harmed; including additional services as they are identified."

During the war, between 1961 and 1971, approximately 77 million liters of herbicides, including 49.3 million liters of Agent Orange containing more than 360 kg of Dioxin were sprayed multiple times over 5.5 million acres in the southern and central areas of Vietnam.

Agent Orange was made by several U.S. chemical companies, including Dow Chemical and Monsanto and was sold to the United States government. These companies sold Agent Orange which contained Dioxin as a by-product of the manufacturing process. Despite knowing that the Dioxin content could be eliminated or drastically reduced by using better manufacturing methods, the companies put profit over human health by continuing to produce a product with elevated Dioxin levels.

U.S. military personnel who handled or sprayed Agent Orange have suffered from similar ailments and disabilities as Vietnamese victims. As a result of a lawsuit against the U.S. chemical manufacturers, in 1984, U.S. veterans received a settlement of $180 million dollars.

Due to the efforts of U.S. veterans and their supporters, the U.S. Congress passed the Agent Orange Act of 1991, which awarded service connected disability benefits to Vietnam veterans exposed to Agent Orange and suffering from certain medical conditions. A U.S. Government Accounting Office report, published in 2005, estimated yearly payments to 160,000 veterans with the four most common illnesses related to Agent Orange exposure at approximately $1.52 billion in disability compensation and $56 million in medical care.

Other governments—New Zealand, England and Australia—have also awarded compensation to their veterans who were similarly exposed. In 2006, a South Korean Court ordered Dow Chemical and Monsanto and other companies, to pay more than 63 million dollars to 6,795 Korean Agent Orange victims and their relatives. Recently, the Canadian government, which sprayed Agent Orange in Gagetown, Canada, has approved a compensation package of 26 million dollars for the 4,500 people affected.

The Vietnam Association for Victims of Agent Orange/Dioxin shares the pain of Agent Orange victims in the U.S. and in other countries. VAVA wholeheartedly supports justice and compensation for ALL victims of Agent Orange!

Vietnamese Agent Orange victims have been the subject of the most intensive spraying of Agent Orange in the world. VAVA believes that the corporations, that manufactured the Agent Orange without regard to the health consequences, and the U.S. government, which used it, are responsible for helping to alleviate the tragic effects of this toxic chemical upon the land and people of Vietnam.

We are thankful for the assistance and aid given by U.S. veterans groups and humanitarian organizations! Many veterans have built and equipped clinics and rehabilitation centers, donated wheelchairs, volunteered their time and contributed funds. These kind hearted American people have taken the lead in extending a hand of friendship to Vietnamese victims.

However, the U.S. chemical manufacturers have yet to follow the lead of the American people. They have denied any responsibility for their toxic product. VAVA brought suit in federal court against these companies under U.S. and international law. The case was dismissed by the Court of Appeals and an appeal is currently pending in the Court of Appeals.

Last year, for the first time, the United States Congress appropriated $3 million, "for environmental remediation of dioxin storage sites and to support health programs in communities near those sites." This is a positive step in healing the wounds of war for Agent Orange victims.

Vietnamese Agent Orange victims living near these "hot spots" are eagerly awaiting for the truly significant contributions from the U.S side to make a real difference in their lives. VAVA hopes that the funds will be allocated according to the needs of the victims, in a direct and effective manner, and will be happy to assist in coordination.

CONCLUSION:

The needs of Vietnam's Agent Orange victims are great and time is running out. Fifty years since Agent Orange was sprayed over the people and land of Vietnam this human tragedy continues unabated. Those who survive seek redress for the anguish that is befalling several generations of their offspring. They hope that the *forgotten responsibility* will now be remembered and acted upon!

The Vietnam Association for Victims of Agent Orange/Dioxin earnestly hopes that the United States Congress and government will continue to provide assistance to Vietnam's more than three million Agent Orange victims. We believe that providing such assistance as will enable our members to significantly improve their lives is an important part of the improving relations between our two countries. We believe that helping the victims and remediating the environmental effects of Agent Orange is in accordance with the humanitarian tradition of the American people.

VAVA looks forward to working with this Committee and with all of the members of Congress to address this issue in the future.

Statement to the House Subcommittee on Asia Pacific and the Global Environment on the impact of Agent Orange

from

Arnold Schecter, MD, MPH
Professor, Environmental and Occupational Medical Sciences
University of Texas School of Public Health, Dallas Regional Campus,
Dallas, Texas

May 13, 2008

I am a Professor of Environmental and Occupational Health Sciences at the University of Texas, Dallas Campus, and have done public health research on Agent Orange and dioxins in Vietnam, Laos, and Cambodia since 1984 on 25 occassions. My research is almost exclusively on dioxins which are the toxic contaminant of Agent Orange. I have also done research on Agent Orange and American Vietnam veterans.

Our findings, working with Vietnamese, German, American, Canadian and Finnish scientists, shows that the dioxin contaminant of Agent Orange, the most toxic of the dioxins, 2,3,7,8-TCDD or TCDD, is still present in some areas of Vietnam in soil, sediment, food, wildlife and people. Most of Vietnam is free of Agent Orange contamination but elevated levels in food has produced high levels in blood and milk of some Vietnamese from current food intake, not only from Agent Orange sprayed in the past.

Although the health or epidemiology research from Vietnam on cancer and birth defects is not considered conclusive by Western scientists, it has been shown from other studies that dioxins are toxic and can cause, in sensitive people and when the amount of exposure is high enough, cancer, immune deficiency, nervous system damage including lower IQ and emotional problems, endocrine disruption including diabetes, thyroid problems, sex hormone disorders, liver damage, reproductive and developmental pathologies, and death from heart attacks in highly exposed workers.

There is no doubt that certain parts of Vietnam are still contaminated with dioxin from Agent Orange. And that there are an unknown number of people living in Vietnam who have elevated levels of dioxins-all persons in the world now have some contamination with the synthetic compounds known as dioxins. In general, the higher the dose the more illness, so it is likely people are sick, have been sick and will continue to become sick from dioxin from Agent Orange.

We have documented elevated dioxins in Vietnam in over 100 articles published in the Western scientific literature, usually with our Vietnamese scientific colleagues such as Dr. Nguyen Ngoc Thi Phuong of Tu Du Hospital, Dr. Le Cao Dai (now dead), Dr. Hoang Trong Quynh, and others.

Dioxin left over from Agent Orange is one of many serious health problems in Vietnam in the past and presently and will continue to be a health problem until its location in people and food is mapped out and food contaminated with dioxin is no consumed.

People potentially exposed to dioxins should be provided preventive medical and primary medical care with regular monitoring, and specialized care when indicated. They are at higher risk for disease than people not exposed to dioxin from Agent Orange. Although "the dose makes the poison", that is, the more dioxin the more health damage, even small exposures above background can be harmful to the health of sensitive persons, including exposed fetuses, the young, elderly and sick persons.

I refer you to my book, "Dioxins and Health, 2nd Ed, Arnold Schecter and Thomas Gasiewicz, Eds, John Wiley and Sons, Piscataway, NJ, 2003, for further information about health damage which can be caused by dioxins.

If I can be of any further help, please do not hesitate to contact me.

Sincerely yours,

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1965 MEMOS SHOW DOW'S ANXIETY ON DIOXIN

By DAVID BURNHAM, SPECIAL TO THE NEW YORK TIMES

Almost 20 years ago, scientists from four rival chemical companies attended a closed meeting at the Dow Chemical Company's headquarters. The subject was the health hazards of dioxin, a toxic contaminant found in a widely used herbicide that the companies manufactured.

Shortly after the meeting, in Midland, Mich., on March 24, 1965, one of those attending wrote in a memorandum that Dow did not want its findings about dioxin made public because the situation might "explode" and generate a new wave of government regulation for the chemical industry.

Another scientist noted that at the meeting, Dow officials had disclosed a study showing that dioxin caused "severe" liver damage in rabbits.

Dioxin, which has also been linked to birth defects and skin disorders in laboratory animals, is believed to be the deadliest chemical made by man, but its effects on humans have been difficult to prove. Since the Midland meeting, various studies have yielded conflicting evidence on whether dioxin increases the risk of cancer in humans.

Although it has been known for many years that Dow held the 1965 meeting with its competitors, excerpts from corporate memorandums about the session are only now beginning to emerge as a result of a lawsuit filed in 1979 against Dow and several other chemical companies. The memorandums raise the possibility that Dow scientists have been saying one thing in private about dioxin while the company's management has said something else in public

"There is absolutely no evidence of dioxin doing any damage to humans except for something called chloracne," Paul F. Oreffice, the president of Dow, said last month on NBC's "Today" show. "It's a rash." Dow has performed medical tests on individuals suffering from chloracne for "over 20 years," he added, "and there is no evidence of any damage other than this rash which went away soon after."

Dow's critics challenge the accuracy of Mr. Oreffice's flat assertion that there is no evidence that dioxin causes human damage other than chloracne and also charge that Dow has failed to publish all the information it has collected in its own dioxin research Furthermore, they say, Dow has systematically resisted Federal and state efforts to learn about and regulate dioxin.

According to a pretrial motion filed by Yannacone & Associates, the legal organization created to represent the Vietnam veterans in the Agent Orange case, the 1965 meeting on dioxin was attended by eight of Dow's senior scientists and six officials of Hooker Chemical; the Diamond Alkali Company, which later became part of Diamond Shamrock, and the Hercules Powder Company. A representative of the Monsanto Chemical Company was invited but did not attend.

Donald R. Frayer, a spokesman for Dow, confirmed in an interview April 5 that the giant chemical company had called the meeting to discuss the health hazards of dioxin. "We feel the meeting was pretty darn straightforward and proper," he said. "I think on the balance that the record shows we discovered a problem, sought out our competitors and tried to give them information and a means to control the problem." Invitation to Meeting

The pretrial motion filed by Yannacone & Associates quoted a number of documents. V.K. Rowe, then director of Dow's Biochemical Research Laboratory, said in his invitation to the meeting that Dow had been researching "toxicological problems caused by the presence of certain highly toxic impurities in certain samples" of the herbicide 2,4,5-T and wished to share its findings. The Dow laboratory was and is recognized as one of the world's finest privately owned toxicology labs.

Two days after the meeting, C.L. Dunn, a chemist who was manager for regulatory affairs for Hercules, summarized in writing what he had been told.

"Dow says that their examination of their own and competitors' 2,4,5-T products contain what they call 'surprisingly high' amounts of the toxic impurities," he wrote.

"In addition to the skin effect," he wrote, describing the results of tests on rabbits, "liver damage is severe, and a noeffect level based on liver response has not yet been established. Even vigorous washing of the skin 15 minutes after application will not prevent damage and may possibly enhance the absorption of the material. There is some evidence it is systemic." Fear on Situation

Dr John Frawley, the chief toxicologist for Hercules, who had also attended the March meeting, got a follow-up telephone call four months later from Earl Farnum, a Dow executive. Dr. Frawley immediately wrote a confidential memorandum to the file.

Mr. Farnum, he wrote, said he was calling on behalf of a Dow vice president, Donald Baldwin, and "stated that Dow was extremely frightened that this situation might explode."

"They are aware that their competitors are marketing 2,4,5-T which contains 'alarming amounts' of acnegen," Dr. Frawley continued, referring to dioxin, "and if the Government learns about this the whole industry will suffer. They are particularly fearful of a Congressional investigation and excessive restrictive legislation on the manufacture of pesticides which might result."

A second memorandum written by Dr. Frawley, and quoted in part by lawyers for the veterans, said he had just received new information about health effects of dioxin from Monsanto, which did not send a representative to the meeting. "From the data provided, a sample which contained 5 parts per million would be acutely toxic," he wrote. "Whether this refers to death or liver damage is not clear."

Daniel Bishop, a Monsanto spokesman, said in an interview that his company "didn't do any testing, period, not then and not now." He said that a fair reading of Dr. Frawley's full statement would make it clear that he had not received the toxicity information from Monsanto, but was not able to identify the information's source because the material in the Agent Orange case had been sealed by the judge. The documents were sealed at the chemical companies' request. Group of 75 Compounds

Dioxin is the name given to any of a family of 75 compounds, called dibenzo-para-dioxins, composed of benzene molecules and oxygen atoms. The compounds are an unwanted byproduct of several chemical processes, including the manufacture of 2,4,5-T under certain circumstances; 2-4,5-T is one of the two major components of Agent Orange.

Proving the specific effects of toxic chemicals on humans is extremely difficult; human experiments are generally prohibited by medical ethics. Animal tests, which are universally accepted by scientists as providing essential guidance on appropriate exposure levels for humans, are not a perfect guide because various species react differently

In laboratory rats, concentrations as small as five parts per 1,000 million have caused statistically significant increases of cancer in rats.

Two studies, conducted on a group of forestry workers in northern Sweden and on a group of agriculture workers in southern Sweden, point to a possible association between exposure to herbicides contaminated with dioxin and an increased risk of soft-tissue cancers. Other studies, however, including one in New Zealand, show no higher risk of cancers for a group of farmers, foresters and fisherman exposed to dioxin than in men in other occupations.

Dr. Samuel S. Epstein, a physician who is professor of occupational and environmental medicine at the University of Illinois Medical Center in Chicago, cites the Swedish studies and other research on such questions as reproductive abnormalities to challenge the statement of Dow's president that there is no evidence that dioxin causes any more

damage than a skin rash. "For Mr. Oreffice to make that statement is absurd," he said in a recent interview. Warning on Dioxin Studies

On March 23, Dr. Perry J. Gehrig, Dow's vice president for agricultural research and development and director of health and environmental science, cautioned the House Subcommittee on Natural Resources, Agriculture Research and Environment against "ove@rinterpreting" the Swedish studies. The reports, he argued, "are too incomplete, both individually and in aggregate, to currently formulate a clear picture of the possible associations between TCDD and soft-tissue sarcomas." TCDD is a form of dioxin.

In 1982, Dow scientists published a report of a company survey on the occurrence of spontaneous abortions, stillbirths, infant deaths and several categories of birth defects among the wives of Dow workers who had been directly exposed to dioxin. The study concluded there were few differences in the number and kind of birth abnormalities found in these women compared with the wives of Dow workers not exposed to dioxin, and the report has been used frequently to support the theory that dioxin is not as dangerous as generally believed.

But Dr. Marvin S. Legator, professor and director of environmental toxicology at the University in Texas in Galveston, questions the study.

"Initially," Dr. Legator went on, "Dow planned on comparing the birth defects among the wives of Dow dioxin workers with two controls. First, a group of wives of Dow workers in Midland who had not been directly exposed to dioxin, and second, some wives of workmen who lived outside the Midland area. This second control group was important because the Midland area is quite polluted and the general population has a relatively high level of congenital abnormalities. But when they published the study the second control group was not included." A 'Sampling Problem'

Mr. Frayer, the Dow spokesman, said the second group had been deleted because of "sampling problems." "The women could not be compared with those in the first two groups, and they were questioned in a different way," Mr. Frayer said. Information compiled by Dr. Alvin Young, an expert at the Veterans Administration, indicates that from 1961 to 69 American companies made a total of 154.5 million pounds of 2,4,5-T.

Of that total, 44 million pounds were applied to the jungles of Vietnam, 23.4 million pounds were exported to other countries and 78.1 million pounds were used domestically. The balance, 10 million pounds, was destroyed by the Government after it was decided to halt the Vietnam defoliation program

Dr. Young estimates that 1,700 pounds of dioxin a year were produced in the United States from the mid-1950's to about 1975, when steps were taken to limit it through changing the manufacturing process.

There is broad agreement that a substantial portion of dioxincontaminated wastes are buried in thousands of dumps around the country. The Environmental Protection Agency

recently said there were 12,000 of these dumps. Other experts have estimated the number may be closer to 50,000. Suits Against Companies

Billions of dollars are at stake in the answer to the question of what the chemical companies knew and when they knew it. In addition to the tens of thousands of veterans who have sued the chemical companies because of their exposure to Agent Orange in Vietnam, thousands of other Americans living near toxic dumps, such as the one in the Love Canal area of Niagara Falls, N.@Y., are seeking damages on the grounds that dioxin and chemical poisons left there have shortened their lives and caused cancer, birth defects and genetic damage.

In January 1979, a group of veterans brought a Federal suit in New York, charging that the dioxin contained in the 2,4,5-T sprayed in Vietnam was a cause of cancer and other diseases among their members and had resulted in genetic damage and the birth of severely deformed children

Victor John Yannacone Jr., a principal organizer of the association of lawyers handling the class-action suit, said in a recent interview that the group now represents 20,000 Vietnam veterans, widows and children of veterans who are seeking damages against the chemical companies that provided the Government with Agent Orange.

The suit against Dow and the other major manufacturers of 2,4,5-T is scheduled to go to trial in the Uniondale, L.I., court of Federal District Judge George C. Pratt Jr. in June. E.P.A. Action Opposed

In an annual report filed with the Securities and Exchange Commission in Washington called a 10-K, Dow said it was one of six chemical companies who were defendants in the suit. "Dow believes it has not been scientifically demonstrated that the injuries claimed by the plaintiffs were caused or could have been caused by exposure to Agent Orange," the report said.

The Dow report also noted that the chemical company was opposing a move by the Environmental Protection Agency initiated during the Carter Administration that would totally ban the use of 2,4,5-T in the United States. The herbicide therefore is still being used on rice fields, on range lands and in industrial areas such as refineries, to control weeds.

The company's repeated public statements about the comparative safety of dioxin, including testimony to Congressional committees, press releases and scientific papers, have been accompanied by efforts on its part, particularly in the Reagan Administration, to block the Government from collecting information about the contaminant.

Evidence of the repeated contacts between Dow and E.P.A. officials in Washington, if not of the subject of the meetings, is contained in the calendars and travel records of these officials that have been obtained by the House subcommittees investigating the agency. Links to Government

Anne McGill Burford, for example, made at least two trips to Midland, Mich., in her 22 months as the head of the Environmental Protection Agency. Rita M. Lavelle, the former head of the Government program to clean up toxic waste dumps, met at least 14 times with Dow officials in the 11 months she held office.

Mrs. Burford, Miss Lavelle and 11 other political appointees recently resigned or were dismissed amid Congressional inquiries on allegations that the agency's toxic waste program had been mishandled.

According to the public testimony of some officials of the agency, Dow used its connections with the top echelon of the agency's Washington officials to get its way on several important matters relating to the regulation of dioxin.

Three weeks ago, for example, agency officials in Chicago told the Investigations Subcommittee of the House Committee on Energy and Commerce that their superiors in Washington ordered them to change an important report on dioxin to comply with the wishes of Dow.

The key deletion from the report was the following central conclusion about Dow's Midland plant: "Dow's discharge represented the major source, if not the only source, of TCDD contamination found in the Tittabawassse and Saginaw Rivers and Saginaw Bay in Michigan."

Dr Lisa Williams. Staff Director
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May I request that the following statement be included as part of the hearing to be heard on Thursday 15th May 2008.

Thousands of people in many countries will welcome this hearing of the Subcommittee on Asia Pacific and the Global Environment on the impact of Agent Orange. Not least those affected by the chemical during its use on Vietnam.

Its use has had consequences that even the chemical companies that manufactured Agent Orange may not have been aware of. Those who have visited Vietnam and met with some of the victims would have seen that Agent Orange has touched the lives of many, and of all ages.

One of the greatest tragedies has been to note that many of today's victims were born years after the war in Vietnam ended. This, as international scientists have shown, has been due to the chemical absorbed into the bodies of the people.

Many servicemen and women from the United States, and their allies, who served in Vietnam have also been affected, as have their children. It has left a terrible legacy that has travelled down the years.

An international effort on a wide scale is needed to clean up the sites where Agent Orange was used and to assist in the physical help for the many victims within Vietnam. Assistance is also needed for the families of the Vietnamese victims. For years the parent/s have spent many hours caring for their sons, daughters, some of who need 24-hour caring.

For these reasons I strongly believe that people will be looking to the subcommittee for their thoughts and proposals to help overcome the terrible legacy of Agent Orange.

Yours sincerely

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Agent Orange and the conscience of the USA

(Intervention at the annual conference of ASA in Albuquerque 10/2008)

Professor Dr. Nguyen Trong Nhan
Vice President of the Vietnam Association for victims of Agent Orange / Dioxin

I knew about America when I was a little boy. At that time, like any other little boy, I was not interested in politics, but enjoyed watching American movies like the cartoon *The Snow White and seven dwarfs, Pinocchio* and cowboy films. We enjoyed American movies not because of the scenes of riding and shooting, but their happy endings, which mean ***"the good defeats the evil"*** And I longed naively to see America! But how America has treated Vietnam ?

After the August revolution in Vietnam (1945) America agreed to the French invasion of Vietnam, though at the time, Vietnam was in co-operation with America and the Allies. That's why Patty, a spy officer, showed his surprise in his book **"Why Vietnam ?"** and was disappointed to see the US government's U-turn on Vietnamese people, their sincere ally.

After the Geneva Agreement (1954), America gradually replaced France in its suppression of the struggle for freedom and independence of Vietnamese people. My boyish naive hope was completely broken when the American Air Forces bombed the North of Vietnam threatening to 'bring it back to the Stone Age' During the war on behalf of the free world, America waged the biggest chemical warfare in the history of mankind. It was published in the *Nature* magazine on April 17th 2003 by the American scientists (J. M. Stellman and her collaborators) of the University of Columbia in New York that about 80 million litters of chemicals containing nearly 400 kilograms of dioxin had been sprayed on the land of the South of Vietnam. But the American politicians and the judges insisted that these chemicals were normal and harmless herbicides and defoliants. In fact, these chemicals destroyed more than three million hectares of forest causing ecological unbalance. As a consequence, erosion, floods and droughts seriously damaged the agriculture – the main means of existence of the majority of the Vietnamese people.

While scientists all over the world consider dioxin the most dangerous man-made toxic chemical (1), in the 1980s, the American Academy of Sciences declared that Dioxin was not harmful to human's health. In response to the objections of public opinion, this prestigious Academy and its Institute of Medicine had proclaimed a list of dioxin related diseases. Up to now, the US Vietnam-War veterans, who were affected by Agent Orange and their families have still been doubtful of the honesty of the American scientists in this field.

If those chemicals were harmless, why authentic American scientists were against their use in Vietnam (2)? Many American and international organizations have exposed the harmfulness of the chemicals used in Vietnam. The chemicals 2,4,5-T were banned in America from April 1970 because it had been proved to cause fetus malformation.

Several American politicians and scientists disapproved Vietnam's studies and required more research in an attempt to evade their criminal proofs with the time. Is it true that they do not know the findings by many Vietnamese and American scientists (such as Professor A.H.Westing,Professor J.D.Constable of Havard University, Professor A. Schecter of University of Texas, Dr. R. Baughmann, Dr. of genetics Matthew S.Meselson of Harvard University, ...), by scientists in Germany (O.Paepke), in Canada (Hatfield Consultants), in Japan and by World Health Organization, which all confirm that :

- The amount of Dioxin in the blood and in the fatty tissue of Vietnamese victims is much higher than that of ordinary Vietnamese people and that of people in other countries (3).

- The Agent Orange victims in Vietnam were *affected by many dangerous diseases such as cancer and immune deficiency (that's why some scientists consider it as dangerous as AIDS but the causing agent is not HIV but Dioxin).* These victims suffer from more diseases than those were in the American list of dioxin related diseases because they were object and directly sprayed with Dioxin and have long been living in their severely contaminated homeland.

-Many vietnamese women/victims experienced disorders and complications during pregnancy including miscarriages, still births, premature births, and severe fetal malformations (4). These reproductive problems have deprived many women of their right to be a mother.

The very high concentration of *Dioxin in the blood and milk* of women/AO victims is harmful to the fetus and after birth to the newborn in the first years of breast-feeding (5).

-The most painful fact is that *Dioxin affects some generations*. The rate of children who have *congenital malformations in Vietnam is higher* than that in other countries, even 30 years after the war ended (6) The congenital malformation rates of the AO victims' children (2,95%) and grandchildren (2,69%) are four and three times respectively higher than that of the children (0,74%) and grandchildren (0,82%) of the non-affected people .

After the war, with a sense of tolerance - a tradition valued by many Americans, Vietnam advocated a policy of "putting the past behind, eliminating hatred and heading the future" More than once we suggested that *America should have humanitarian activities helping the Agent Orange victims, just like Vietnam helping America looking for MIAs.*

Vietnam showed its goodwill but America didn't. After decades of waiting for the response of America, in early 2004 the Agent Orange victims of Vietnam had no choice but to file a lawsuit (in accordance with The Alien Tort Claim Act of America) against the U.S chemical companies that supplied the US Army with very toxic chemicals for use in Vietnam against the international law.

It's a pity that American judges have dismissed the claims of Vietnamese Agent Orange victims with very unconvincing reasons. In fact, they don't respect the truth and justice Even American people know that this is nonsense and put it as *"justice delayed"*. And that's why the Asian - Pacific and the Global Environment Subcommittee of the US House of Common Committee for Foreign Affairs recently, on May 15th , held a hearing entitled "*Our forgotten responsibility: What can we do to help victims of Agent Orange?*"

People with conscience and self-respect can't understand the US government's attitude when they spent only 3 million US$ for cleaning the environment in 'the hot spot' of Dioxin-contaminated Da Nang and they know the following facts far too well:

- The lawsuit against the American chemical companies by Vietnam veterans of Brooklyn, America in 1984 was so arranged by the Federal Court that these companies set up a benefit fund of US$180 million for the victims.
- Every year the US government spends a large amount of money as benefit for Vietnam veterans who suffer from Dioxin – related diseases as listed by the American Institute of Medicine.

- Some years ago Korean Court claimed a compensation of US$ 62 million from American chemical companies for about 7000 victims of Agent Orange in Korea.
- After many years denying their responsibilities, the government of New Zealand has made a public apology to their Vietnam veterans for sending them to join the war, which was why they are affected by Dioxin – related diseases. It is informed that the New Zealand's veterans intend to file a lawsuit against the US chemical companies claiming a compensation of US$ 3 billions.
- In his speech at the White House on May 28th 1996, President Bill Clinton admitted that the US government didn't pay attention to the opinion of the Vietnam veterans/Agent Orange victims. Here are his original words: *"Today we are showing that America can listen and act. Our country can face up to the consequences of our actions... We will bear the responsibility for the harm we do, even when the harm is unintended... Nothing we can do will ever repay the Vietnam veterans for all they gave and all they lost, particularly those who have been damaged by Agent Orange."*

How eloquent the speech was! But now, the Vietnam veterans/Agent Orange victims and their families are still anxious and doubtful of the US government's policies dealing with them and their children. Some victims / veterans are continuing to sue the American chemical companies'

What about the 3 million Agent Orange victims in Vietnam?

. Tens of thousands of victims have died in sufferings, poverty and resentment. At the same time there have been new victims who are the children and grandchildren of those directly exposed to Agent Orange. In June 2008, the two victims, Qui and Hong died of cancer some weeks after returning from the USA, where they joined the oral argument at the second circuit US court in New York. Although before leaving for the USA, they knew that they were seriously ill and might suffer from terrible pains, they might even die far away from home; they were determined to get to the USA to face the American Court of Justice hoping to enlighten the conscience of America.

The courageous struggle of the Agent Orange victims in Vietnam and their lawsuit are not only for the sake of their own and their children, but also for the legitimate benefit of the Agent Orange victims in other countries such as America, Korea, Australia, New

Zealand and Canada. This struggle is also against mass killing weapons, for world peace protection, for happiness of the future generations.

Then, are there justice and conscience in the USA? And who are the people that really respect justice and conscience?

NOTES

1- It has been well known that only 80 grams of Dioxin dissolved in the water supply systems may eliminate an entire city with 8 million inhabitants.

2- In 1966, Arthur Galston, Professor of biology of Yale University and in 1967, Dr. John Edsall of Havard University and more than 5000 scientists (17 among them are Nobel Prize winners and 129 among them are Academicians) had signed a letter of objections to President Johnson.

3- The amount of Dioxin in the blood and in the fatty tissue of Vietnamese victims (19.24 ppt (part per trillion) is much higher than that found in non-affected people in Vietnam, Japan, Canada, the United States and other countries (1.38; 6; 7; 7.2 ppt respectively).

4- COMPLICATIONS OF	*NORMAL PERSON*	*AO's VICTIM*
.. OBSTETRIC		
Abortion, premature birth	*3 7 %*	*8 16.7 %*
Interrupted Pregnancy	*0.35 %*	*3.04 %*
Molia Pregnancy	*0.6 – 0.9 %*	*7– 37 %*

*5-**American researchers** from Harvard University (Baughnam,M.S. Meselson) had already found the following harmful effect of toxic herbicides:*

- In 1970: a very high level Dioxin in Vietnamese mothers' milk (average 484 ppt /gram of milk, highest figure is 1450 ppt).

*- In February 1988, the **World Health Organization** announced the results of its research on Dioxin level in mothers' milk as follows:*

**Hanoi (VN)*	*2.2ppt*	**India*	*1ppt*	**United States*	*3.1-3.5ppt .*
**Song Be (VN)*	*17ppt*	**Japan*	*1.8-2.4ppt*	**Canada*	*2.2-2.8ppt .*
**Can Gio (VN)*	*9ppt*	**Thailand*	*< 1ppt*	**Great Britain*	*1.4ppt*

6- For example, in Song Be and Dong Thap provinces (South Vietnam), Japanese scientists (Maharaja and Makita) identified 69 cases of anencephaly out of 10,000 births (Japan 8; North Ireland 20). 103 cases of harelip (cleft lip) and upper-jaw-openness (cleft palate) out of 10,000 births (Japan 10; Malaysia 15; North Ireland 12).

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AGENT ORANGE: AN OVERVIEW

In a laboratory at the University of Chicago during the Second World War, Dr. E.J. Kraus discovered that causing plants to experience rapid growth through high doses of 2,4-tichlorophenoxyacetic acid (2,4-D) could kill certain species of plants. This was the beginning of Agent Orange ...

The US Army experimented with 2,4-D during the 1950s. Subsequent to evaluating its effectiveness in defoliating Panamanian and Malaysian forests, the herbicide was introduced into the Army's chemical arsenal. Scientists noted that a mixture of 2,4-D and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) sprayed on plants would cause an almost immediate negative effect. What they didn't realize was that 2,4,5-T contained a toxic substance, dioxin, an unintentional by-product of the manufacturing process.

After limited scientific and industrial evaluation, a variety of chemical herbicides were shipped to Viet Nam in 1961. An arsenal of herbicides were labeled by the colour-coded stripes on their shipping barrels: Agent Blue, Agent White, Agent Purple, Agent Pink, Agent Green, and the combination of 2,4-D and 2,4,5-T, namely Agent Orange.

The code-named 'Operation Ranch Hand' was kicked off on January 13, 1962, with the goal to defoliate South Viet Nam's jungles using C-123 aircraft. By September 1962, the spraying program intensified. Over the next nine years, in excess of 80 million litres of herbicide were released into the environment of southern Viet Nam. Approximately 60% of this total was Agent Orange. The US military command in Viet Nam insisted that the defoliation program was successful, and had little adverse impact on the economy of the villagers who may have come into contact with it.

Herbicides in the US, regulated by the EPA for use in domestic products, were usually highly diluted with water or oil, and measured in parts per trillion. However, herbicides shipped to Viet Nam contained up to 50 times the concentration suggested by manufacturers.

Reports began to emerge from Viet Nam that Vietnamese in areas where Agent Orange was being used were experiencing birth defects and a variety of health problems. These frequent reports were relegated to the category of 'communist propaganda' by the US. Unknown to Vietnamese civilians (and to US and allied soldiers who were living, eating and bathing in areas where herbicides were used) was that herbicide manufacturers were aware of and conducting studies on its toxic effects, but suppressed the information, fearing a negative backlash from government and the public.

Concerns over dioxin were kept quiet and largely out of public view while the US Government and chemical companies presented a united front on the issue of defoliation. Claiming it was a military necessity to deprive the Viet Cong of hiding places and food sources, the herbicides,

particularly Agent Orange, were said to cause no adverse economic or health effects to those who came into contact with them.

But scientists involved in Operation Ranch Hand and documents uncovered in the US National Archives, present a different picture. There are strong indications that not only were military officials aware as early as 1967 of the limited effectiveness of chemical defoliation in military strategy, they also knew of the potential long-term health risks of frequent spraying and sought to censor relevant news reports.

Dr. James Clary, Air Force scientist in Viet Nam, says the Air Force knew Agent Orange was far more hazardous to the health of humans than anyone would admit at the time: "*When we* [military scientists] *initiated the herbicide program in the 1960s, we were aware of the potential for damage due to dioxin contamination in the herbicide. We were even aware that the military formulation had a higher dioxin concentration than the civilian version, due to the lower cost and speed of manufacture. However, because the material was to be used on the enemy, none of us were overly concerned.*" (1988 letter from Clary to a member of Congress)

In the US, the chemical companies continued to insist that Agent Orange had no adverse effects on humans, despite Dow Chemical's internal concerns about human exposure to Agent Orange in 1965, which was hidden from the government, and despite evidence that workers suffered unusual health problems at factories producing Agent Orange.

The spraying continued unabated even though, according to military records, it apparently was having minimal effects on the enemy. A series of memoranda uncovered in the National Archives, and now declassified, indicate that defoliation itself was successful but had little effect on military operations. Col. John Moran, chief of the Chemical Operations division of MACV, wrote a memorandum dated October 3, 1968, titled "Advantages and Disadvantages of the Use of Herbicides in Viet Nam" that provides some key insights into the results of the defoliation program: "*The effect of defoliation on the enemy, in itself, is of little military value. Its military potential is realized only when it is channeled into selected targets and combined with combat power ... The herbicide program carries with it the potential for causing serious adverse impacts in the economic, social, psychological fields.*" Ecologically, according to the memorandum, "*Semi-deciduous forests, especially in War Zones C and D* [mangrove forests] *have been severely affected. The regeneration of these forests could be seriously retarded by repeated applications of herbicide.*"

The use of herbicides was not limited to the triple canopy forests of southern Viet Nam. They were widely used to suppress vegetation around the perimeters and mine fields of military bases and, in many instances, the interiors of those bases. They were also used to destroy rice crops. The use of Agent Orange throughout Viet Nam was widespread through much of 1969; late in the year, a study done by Bionetics Research Laboratories exposed dioxin as the cause of deaths and stillbirths in laboratory animals. The tests revealed that as little as two parts per trillion of dioxin in the bloodstream was sufficient to cause death and abnormal births in laboratory animals.

When the Food and Drug Administration released the report, the White House, on October 29, 1969, ordered a partial curtailment of the use of Agent Orange in Viet Nam. On November 4, 1969, a message went out from the Joint Chiefs of Staff to Commander in Chief Pacific and MACV: *"A report prepared for the National Institute of Health presents evidence that 2,4,5-T can cause malformation of offspring and stillbirths in mice, when given in relatively high doses. This material is present in the defoliant (Agent) Orange. Pending decision by the appropriate department on whether this herbicide can remain on the domestic market, defoliation missions in South Viet Nam using Agent Orange should be targeted only for areas remote from population."*

Despite growing regulation over Agent Orange in Viet Nam, troops continued to use it when they ran out of the other herbicides.

In early 1971, the US Surgeon General regulated the use of Agent Orange for home use, given its harmful effects. Consequently, all spraying was officially stopped in Viet Nam. Over 30 years later Agent Orange dioxin remains in the ecosystem. Studies on Agent Orange in Viet Nam (1994-2000) by Hatfield Consultants Ltd. of West Vancouver, Canada, and the 10-80 Division (Ministry of Health, Viet Nam) have shown that former US military installations are probably the most highly contaminated areas in southern Viet Nam. Their multi-year investigation has shown that nearly 30 years after cessation of hostilities, dioxin remains at alarmingly high concentrations in soils, foods, human blood and human breast milk in adults and children inhabiting areas in close proximity to a former US military installation.

A recent publication by US scientists has provided more disconcerting evidence that the quantity of Agent Orange released into the Vietnamese environment during the conflict was **substantially underestimated**, and that the concentration of dioxin in Agent Orange was **significantly higher** than originally thought.

The US Department of Veterans Affairs financially compensates US veterans of the Viet Nam war, who experienced certain health problems and can show they were in contact with Agent Orange during their tours of duty in Viet Nam. However, the same health conditions experienced by Vietnamese who continue to reside in areas of high dioxin contamination are not recognized and victims receive no compensation from the US Government.

Bilateral relations between the US and Viet Nam regarding the Agent Orange dioxin issue have improved; however, progress on addressing the concerns of the Vietnamese people, regarding health issues, moves very slowly. The US continues to maintain the position that there is no unequivocal scientific proof that Agent Orange dioxin is the cause of health problems in Viet Nam. The story continues, 30+ years later …

UNITED STATES: DEPARTMENT OF DEFENSE POSITION WITH REGARD TO DESTRUCTION OF CROPS THROUGH CHEMICAL AGENTS*
(April, 1971)

GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
WASHINGTON, D. C. 20301

5 April 1971

Honorable J. W. Fulbright
Chairman, Committee on Foreign Relations
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

Pursuant to your request as the Chairman of the Senate Foreign Relations Committee made during the Hearings of March 22, 1971, on the Geneva Protocol of 1925, this statement constitutes an opinion from the Office of General Counsel, Department of Defense, concerning the application of the Hague Regulations of 1907 to the destruction of crops through chemical agents. This opinion, in the spirit of your question, extends beyond the literal text of the 1907 Hague Regulations. Moreover, this opinion will embrace the use of defoliants and antiplant chemicals in general.

It is our opinion and that of the Judge Advocate Generals of the Army, Navy and Air Force that neither the Hague Regulations nor the rules of customary international law applicable to the conduct of war and to the weapons of war prohibit the use of antiplant chemicals for defoliation or the destruction of crops, provided that their use against crops does not cause such crops as food to be poisoned nor cause human beings to be poisoned by direct contact, and such use must not cause unnecessary destruction of enemy property.

The standard of lawfulness, with respect to the use of this agent either as a defoliant or as a means to destroy crops, under the laws of war, is the same standard which is applied to other conventional means of waging war. International law and the laws of war are prohibitive in nature (United States v. List, et al., Vol. XI, TRIALS OF WAR CRIMINALS, USGPO, Washington, 1950, at p. 1247). Hence, in order to be unlawful,

*[Reproduced from the texts provided to International Legal Materials by the U.S. Department of Defense.
[As of November 2, 1971, the Senate Foreign Relations Committee had not reported on the Geneva Protocol of 1925.]

the use of a weapon in the conduct of war must either be prohibited by a specifically agreed-upon rule, or its use must be such as would offend the general principle of humanitarianism, that is to say, such as would cause unnecessary destruction of property or unnecessary human suffering.

The pertinent article in the Hague Regulations of 1907 is Article 23, which is in the "Regulations Respecting the Laws and Customs of War on Land," annexed to the Hague Convention of 1907 (IV), "Respecting the Laws and Customs of War on Land." Paragraphs (a), (e) and (g) read as follows:

> "Article 23. In addition to the prohibitions provided by special Conventions, it is especially forbidden -
>
> "a. To employ poison or poisoned weapons; . . .
>
> "e. To employ arms, projectiles, or material calculated to cause unnecessary suffering; . . .
>
> "g. To destroy or seize the enemy's property, unless such destruction or seizure be imperatively demanded by the necessities of war; . . ."

A discussion of Hague Regulation Article 23(a), relating to poisons and poisoned weapons, is set forth in paragraph 37 on page 18 of the Department of the Army Field Manual, FM 27-10, entitled "The Law of Land Warfare" (dated July 1956). It reads in its entirety:

> "37. Poison
>
> "a. Treaty Provision.
>
> "It is especially forbidden * * * to employ poison or poisoned weapons. (HR, art. 23, par. (a).)
>
> "b. Discussion of Rule. The foregoing rule does not prohibit measures being taken to dry up springs, to divert rivers and aqueducts from their courses, or to destroy, through chemical or bacterial agents harmless to man, crops intended solely for consumption by the armed forces (if that fact can be determined)."

The discussion in paragraph 37 of the Manual is based on the standard set forth above to the effect that a prohibition against the use of one type of weapon, i.e., poison or poisoned weapons, does not effect any prohibition on the use of other weapons and, in particular, it does not prohibit the use of chemical herbicides for depriving the enemy of food and water. This discussion does

not regard chemical herbicides, harmless to man, as poison or poisoned weapons, for if they had been so considered, their use against crops intended solely for the consumption by the enemy's armed forces would clearly have been prohibited by Article 23(a) of the Hague Regulations. As the discussion points out, such a use does not fall within the prohibition.

We therefore believe that the correct interpretation of paragraph 37(b) is that the use of chemical herbicides, harmless to man, to destroy crops intended solely for consumption by the enemy's armed forces (if that fact can be determined) is not prohibited by Article 23(a) or any other rule of international law. It involves an attack by unprohibited means against legitimate military objectives. But an attack by any means against crops intended solely for consumption by noncombatants not contributing to the enemy's war effort would be unlawful for such would not be an attack upon a legitimate military objective.

Where it cannot be determined whether crops were intended solely for consumption by the enemy's armed forces, crop destruction would be lawful if a reasonable inquiry indicated that the intended destruction is justified by military necessity under the principles of Hague Regulation Article 23(g), and that the devastation occasioned is not disproportionate to the military advantage gained. In United States v. List, et al. (Vol. XI, TRIALS OF WAR CRIMINALS, pp. 1296-1297), the Nuremberg Tribunals affirmed this principle.

The thrust of the phrase "harmless to man" made part of the discussion of the rules draws attention to Article 23(e) of the Hague Regulations of 1907, wherein combatants are forbidden to employ weapons "calculated to cause unnecessary suffering." However, the provision in Hague Regulation Article 23(a) concerning the prohibition against using poison or poisoned weapons is a special case of this rule since it, in effect, declares that any use of a lethal substance against human beings is, per se, a use which is calculated to cause unnecessary suffering.

The Geneva Protocol of 1925 adds no prohibitions relating to either the use of chemical herbicides or to crop destruction to those described above. Its preamble declares that its prohibition shall extend to "the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices." Bearing in view that neither the legislative history nor the practices of States indicate that the Protocol draws chemical herbicides within its prohibitions, any attempt by the United States to include such agents within the Protocol would be the result of its own policy determination, amounting to a self-denial of the use of the weapons. Such a

determination is not compelled by the 1907 Hague Regulations, the Geneva Protocol of 1925 or the rules of customary international law.

It is universally recognized that the laws of war leave much to the discretion of the military commander. They reflect the principles discussed in this opinion. But in reflecting their application, the rules themselves have gained their content and origin in the practices of States engaged in war, and, in particular, have arisen out of their reciprocal tolerances of what conduct was considered legitimate and what was not.

Sincerely,

J. Fred Buzhardt

J. Fred Buzhardt

Honorable J. W. Fulbright
Chairman, Committee on Foreign Relations
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

Secretary Laird has asked me to respond to your letter dated April 8, 1971, requesting whether any legal review of the crop destruction program in Vietnam was made by the Department of Defense, the Army or the Air Force before the program was initiated.

A review was made of the use of chemical herbicides for the destruction of crops on January 11, 1945, by Major General Myron C. Cramer, The Judge Advocate General, War Department. A copy of General Cramer's opinion is attached. As that opinion points out, it was the position of the Judge Advocate General after an exhaustive study of the relevant materials, that no rule of international law prohibited the use of chemical

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herbicides for the destruction of crops subject to the qualifications which were also set forth and discussed in our opinion dated April 5, 1971. There is no indication in our files that the 1945 opinion was ever overruled or modified. Though antedating the Vietnam conflict, General Cramer's opinion clearly encompasses the activities that have taken place in Vietnam and reflects the same position which we have taken.

Apart from this written opinion, it should be noted that operation plans are routinely submitted to the Office of the Judge Advocate General of both the Department of the Air Force and the Department of the Army and that there has never been a legal objection raised when plans have proposed or referred to the use of chemical herbicides in Vietnam.

Sincerely yours,

J. Fred Buzhardt

Attachment

WAR 1945

SPJGW 1945/164

MEMORANDUM FOR THE SECRETARY OF WAR. Attention: Mr. George Merck, Chief, U.S. Biological Warfare Committee.

SUBJECT: Destruction of Crops by Chemicals.

1. On 11 January 1945, the Office of the Secretary of War (Captain William T. Hodge, on duty under Mr. Harvey Bundy) requested an opinion as to the legality under international law of certain crop-destroying chemicals which can be sprayed by airplane against enemy cultivations. Application of these chemicals (referred to as "LN Agents") to crops which are being grown by by-passed Japanese garrisons in the Pacific and East Indies, would have the effect of destroying their principal means of subsistence and compel the surrender or death of the individuals in these enemy pockets. From information thus far received from the Biological Warfare Committee, it appears that LN agents, while effective in low concentration against plants, are not injurious to animals or to human beings, even when eaten in relatively large quantities. Experimentation on this aspect of their effects is continuing.

2. The United States is not bound by any treaty which specifically excludes or restricts the use of chemicals, whether toxic or nontoxic in time of war (FM 27-10, Rules of Land Warfare, par. 29). While the Geneva Protocol of 1925, forbidding the use of "asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices," has been accepted by 42 States, it has never been ratified either by the United States or by Japan (Text in 94 League of Nations Treaty Series, p. 65; U.S. For. Rel., 1923, vol. I, p. 89; III Hudson, International Legislation, 1670). An exhaustive study of the source materials, however, warrants the conclusion that a customary rule of international law has developed by which poisonous gases and those causing unnecessary suffering are prohibited (cf. Naval War College, International Law Situations, 1935, p. 106; Oppenheim, International Law, 6th ed., vol. II, p. 275; Bustamante y Sirven, Droit International Public, vol. 4, p. 325). The United States has officially announced that it will observe this principle (Department of State Bulletin, 12 June 1943, p. 507); and, in September 1939, Germany, in answer to a British inquiry, replied that she would observe the prohibition of the Protocol of 1925, subject to reciprocity (Oppenheim, op. cit., p. 275 note).

3. Nevertheless, the scope of this prohibition is restricted. It does not constitute a complete ban on all gases and chemical substances. A distinction exists between the employment of poisonous and deleterious gases against enemy human beings, and the use of chemical agents to destroy property, such as natural vegetation, crop cultivations, and the like. There is no rule of international law which proscribes chemicals in war absolutely, apart from their poisonous and toxic effects upon human beings. The true motive behind the movement to outlaw poison gas is that it is considered a barbarous and inhumane weapon against human beings, because it inflicts unnecessary suffering upon them. This purpose was expressly stated at the Hague Peace Conference of 1899 (Proceedings of the Conference, pp. 282-3; 296-7) and it underlies every international convention drafted since then. The prevention of unnecessary human suffering, not of destruction of property, was the sole inspiration for the proposal (Cf. Conference on the Limitation of Armament, Washington, 1921, p. 732). It follows that the use of chemical agents, whether in the form of a spray, powder, dust or smoke, to destroy cultivations or retard their growth, would not violate any rule of international law prohibiting poison gas; upon condition, however, that such chemicals do not produce poisonous effects upon enemy personnel, either from direct contact, or indirectly from ingestion of plants and vegetables which have been exposed thereto. Whether LN agents, used as contemplated, are toxic to such a degree as to poison an individual's system, is a question of fact which should be definitely ascertained. Should further experimentation disclose that they are toxic to human beings, I will be pleased to express my opinion on the facts which may be presented for consideration.

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4. Nor does the prohibition against using "poison or poisoned weapons" in Article 23 a of the Regulations annexed to the Hague Convention (IV) of 1907 (FM 27-10, Rules of Land Warfare, par. 28; FM 27-251, Treaties Governing Land Warfare, p. 231 render the use of these chemicals illegal. Even if Article 23 a is held to apply to toxic chemical substances (thus, Hall, International Law, 7th ed., p. 569 note; Garner, International Law and the World War, vol. I, pp. 277-278. Contra: Korovine, in 36 Revue générale de Droit International Public, 1929, pp. 649-650), it would not preclude the use of crop-destroying chemicals which produce substantially no noxious effects upon enemy soldiers. That, because it destroyed plants, the chemical might be called a "poison", is an argument which is hardly open to the Japanese who used strychnine in the Russo-Japanese war to kill Russian military dogs (Ariga, La Droit International, p. 258; Fauchille, Droit International Public, vol. II, p. 124).

5. The proposed target of destruction, enemy crop cultivations, is a legitimate one, inasmuch as a belligerent is entitled to deprive the enemy of food and water, and to destroy his sources of supply whether in depots, in transit on land, or growing in his fields (FM 27-10, Rules of Land Warfare, par. 24; Oppenheim, International Law, 6th ed., vol. II, pp. 320 ff.; Fauchille, Droit International Public, vol. II, pp. 130-131; Spaight, War Rights on Land, pp. 130-140; idem, Air Power and War Rights, pp. 247 ff.).

6. Such is my conclusion, reached after considerable research, and I believe it to be sound. However, I believe I should point out the possibility that the Japanese may come to or pretend to come to an opposite conclusion and invoke such use of these chemical agents as an excuse for retaliatory measures.

7. A memorandum which has my approval, and which states the reasons for these conclusions in greater detail, is available if desired.

[Sgd.] MYRON C. CRAMER
MYRON C. CRAMER
Major General
The Judge Advocate General

Herbicides Used In Vietnam Part 3

Permission granted to link this site to your Webpage
http://members.aol.com/warlibrary/vwhr4.htm

Yearly Herbicides Used In Vietnam

DECLASSIFIED DOCUMENTS

A. Memo from Robert H Johnson of the National Security Council Staff to the Pres's Dep'y Special Asst for National Security Affairs (Rostow) Washg'tn, 11-17-61, Secret

D. Memo From the Asst Director, Far East (Neilson) to the Director of the US Info Agency [USIA] (Murrow); Washg'tn, 11-17-61, SECRET

G. Telegram From the Dept of State (Ball) to the Embassy in Saigon (Nolting), Washg'tn, 12-14-61, 8:02pm, SECRET; Priority

J. CINCPAC (Felt), to Chief MAAG V'nam (McGarr), Honolulu, 12-28-61, 12:45pm, TOP SECRET

N. Memo from the SecState (Rusk) to the Pres (Kennedy), Washg'tn, 11-24-61, TOP SECRET

1. Memo from Robert H Johnson of the National Security Council Staff

SUBJECT: Use of defoliants in V'nam

It seems to me that if we are going to cope successfully with charges that we are engaged in germ or poison gas warfare, we must make the gen'l character of the ops as open and above board as possible, would it be possible to get the ICC to examine every drum of the defoliant mixture to determine that it is what we say it is? If we are going to pursue the policy of letting the ICC find out itself whether we are violating the Geneva Accord's, this may be impossible. It may be difficult, in any event, to get the ICC to agree to any such action. An alternative approach would be to bring in some other international group or perhaps a group of private scientists. Publicity ought to emphasize the fact (I believe it is a fact) that the chemical agents involved are the same kind that are used by farmers against weeds. I think that the adverse political consequences of the operation would also be less if this is not the 1st concrete move that is announced in connection with our stepped-up effort in V'nam. If it could be put in the context of a comprehensive story of what we plan to do and why we plan to do it, we shall be much better off. There is some danger that NV, which has already got hold of our gen'l plans and begun a propaganda operation, can

exploit this operation to the point where its propaganda would be a quite effective backfire against our subsequent charges of DRV involvement in the South. It seems to ale important that this question be got to the Pres on an urgent basis, possibly this weekend, no later than Monday. [11-20] If we are not going ahead we ought to stop our preparatory efforts quickly. Otherwise we may pay many of the political costs while reaping no military advantages. The cost estimates on this program seem to have gone upward continuously. Whereas earlier this week I understood that the total cost was on the order of $4 million ($1 million for chemicals and $3 million for air transport), I now understand that it may be on the order of $10.15 million. This estimate is for just the political phase operation-the attack on the food supplies. Often estimates have put total possible cost of the 3-phase program at $70 million or more. I think that these figures raise serious questions with respect to the comparative value of this as opposed to other measures we might take in V'nam. As you probably know, subsequent phases would involve selective defoliation in Zone D and of the communications routes between Saigon and other key cities and defoliation along the Cambodian border. If I understand a recent Dept telegram correctly, we have in mind defoliating an area near, but not on, the border, but at a constant distance from it. Will this accomplish the purpose? I am not certain whether the Pres is being asked to approve all 3 phases. Politically, the defoliation of areas around Zone D and along the roads to the principal cities would seem to present least difficulties. If we should decide against the operation directed at VC crops, we might still decide go ahead with Zone D and roadside operation. The principal political danger in it may be to turn non-communist villagers whose crops are accidentally destroyed against the govt. That is, of course, 1 of the political drawbacks of all 3 proposed phases. I would recommend that, since State and Defense are now to discuss the the subject this afternoon, [see footnote 1] they might consider preparing a joint paper for the Pres. The Defense draft ought clearly to state the technical military case for case. (A bootleg copy of a draft [not found] which I have seen did not,) The State draft ought to discuss the political problems in the area and worldwide. Relevant recent cable traffic is attached.

Footnote 1: This discussion took place at the Dept of State at 2pm on 11-17 and included U Alexis Johnson, William Bundy, and Rostow, among others.

FROM THE ASST DIRECTOR, FAR EAST (NEILSON)

A note on the source text indicates that copies were sent to Wilson, Sorenson (IOF), and Staton (IAF). The source text is Sorenson's copy and bears his typewritten name in the margin and the handwritten notation, "JCS. Must reading. BY." "BY" has not been identified.

SUBJECT: Use of Defoliants in V'nam

I am informed that the DOD has drafted a memo to the White House seeking the Pres's decision on the use of defoliants in V'nam. [see 264 file] The SecState's concurrence is to be sought before submission to the Pres. A member of my staff saw the memo in the V'nam Task Force office yesterday. No copies were available. The memo, briefly, lists 2 principal objectives in using defoliants: Deny food to VC units; establish a denuded area along V'nam borders (with Cambodia, or Laos, or both) to check VC infiltration. Also listed are negative factors, mainly psychological, which should be taken into consideration in the decision-making process. The status of this controversial subject thus is: The Govt of V'nam, the US Country Team in Saigon and the Dept of Defense urge employment of defoliant as an effective tactic to hinder VC depredations. In proposing the action, consideration was given to so-called public relations or psychological factors, for instance, tests on foliage in or around Saigon would be made publicly to demonstrate that the chemicals employed are not harmful to humans and animals; the GVN itself would mount a publicity campaign explaining the security benefits which would accrue; unmarked aircraft

piloted by "civilians" would be employed at spraying flights to guard against charges that "American military adventurists" are involved; etc. I don't know whether the following factors have been taken into consideration thus far in the decision-making process in Washg'tn: (1) The use of chemical weaponry in an Asian country could create such a storm of criticism that possible short-range military advantages on the ground in V'nam might be outweighed by a harvest of ill-will deleterious to certain long-ranged goals in V'nam and the region SEA. (2) The communist bloc will, of course, make great propaganda capital of this undertaking by "the US and its stooge Diem." We all recall the propaganda circus created by the communists on alleged US use of "germ warfare" in Korea on the basis of fabricated evidence. I am no military strategist or tactician, although I did learn a few things about chemical or bacteriological warfare (most of it hair-raising) at the Air War College. Perhaps defoliation can be a critical factor in exposing VC strongholds and destroying VC food supplies. If it is; and must be used, we can take the psychological bumps which are certain to be dealt to us. But the spectre of charges that "US imperialists are waging germ warfare on Asians" haunts me. The decision is to be left to the Pres. I recommend you discuss the subject in its varied ramifications with Walt Rostow.

FROM THE DEPT OF STATE (BALL) TO THE EMBASSY IN SAIGON (NOLTING)

Drafted by Heinz and Wood, cleared with Cottrell, DOD/ISA, and USIA, and initialed by Harriman for the Acting Sec'y. Also sent to CINCPAC for PolAd

781. Joint State-Defense message. Task Force/VN. Subject: Defoliants.

Defense prepared give go-ahead to 1st stage defoliant ops upon receipt from CINCPAC of plans and Washg'tn approval for 1st stage of operation. Decision is that 1st ops undertaken will be clearance of jungle growth along roads and trails used by ARVN for tactical ops. SecDef has stated that he desires these ops commence as soon as plans receive Washg'tn (Defense and State) approval. In anticipation press inquiries re use defoliant for jungle road clearance, we propose reply following lines: Noting communist guerillas use roadside underbrush to ambush civilian buses, trucks, and passenger cars, making roads unsafe for daily travel by people of the country, GVN has asked US for assistance in program of clearance of jungle growth along roads of V'nam, US equipment will be used. Road clearance will aid the ARVN in patrolling roads to protect people and will facilitate normal maintenance. Operation involves use of materials which are similar those used every day for weed clearance rights of way in the US. As our people know from experience, these defoliants of the 2-4D variety are not handful to humans, animals, or the soil. Since there are miles of jungle roads in V'nam, US planes and personnel are actively cooperating in this jungle growth clearance operation. C-123 type planes are being used. They are piloted by US crews in uniform. Your comments requested on above proposed statement which we suggest would also be used in Saigon by US agencies in response to expected queries there. Deptel 556 [not found] and Airgram CA-623 [see footnote 1] propose certain procedures for GVN. We would suggest that matter of informing South V'namese people be responsibility of the GVN. Since defoliant is harmless to personnel and animals, we intend to play it in a low key although we feel it will make a definite contribution to counter-guerrilla ops. (on lines para A, 1 CA-623) [see footnote 2] We believe it important to emphasize that in this operation we are merely clearing jungle growth along the sides of roads, that we are not attacking any human targets, and that its primary purpose is to prevent the guerrilla forces from utilizing this jungle cover for ambushing V'namese forces. We also anticipate that the ground work laid in connection with this jungle road clearance operation will establish a framework within which we can combat future Communist propaganda blasts for other phases of defoliant ops, i.e., tactical Zone D, border clearance and eventually food denial.

Footnote 1: Dated 12-8, it contained the V'nam Task Force's suggestions regarding publicity in connection with the use of defoliants.

Footnote 2: This paragraph dealt with defoliation along roads. It reads "Action preceded by low key provincial level announcement emphasizing this normal procedure keep road shoulders clear underbrush and tying action to road maintenance effort. Mimeographed announcement including statement that spray harmless to man, animals, and soil for distribution inhabited areas near roads. Before undertaking overall road clearance project large-scale trial run should be undertaken, after proper publicity, and popular reaction to trial pln assessed."

CINCPAC (FELT), TO CHIEF MAAG V'NAM (MCGARR)

Repeated to the JCS, JACE AJCC, PACAF, and Navy GRNC.

282245Z. Defoliant ops, A. ChMAAG V'nam 160451Z.

B. CHMAAG V'nam 220359Z. C. CINCPAC 232135Z. [see footnote 1]

1. In order to respond to decision made at SecDef meeting 12-16, a defoliant plan is required which clearly sets forth the objective of the operation and specific areas for the initial operation. Refs A and B contain basic data but are not selective enough. Our concept is that a defoliant operation should be developed with the following purposes in mind:

A. To assist the counter-insurgency operation [CI op] by clearing lines of communication in support of current or projected campaigns.

B. To enhance capabilities for aerial observation of selected areas in VC controlled territory.

C. To assist in clearing fields of fire and to increase observation order to decrease the likelihood of close-in ambushes.

2. The initial defoliant operation should be designed with above purposes in mind, but with limited specific objectives in order to provide us with an opportunity to evaluate its success and thereby to determine advisability of further ops.

3. With foregoing in mind, I have developed following plan for initial limited objective defoliating ops:

"1. Situation: The RVNAF is preparing to implement a campaign to eliminate the VC in specified provinces throughout RVN. To assist these ops, action has been taken to provide for the initial employment of chemical defoliants to clear vegetation along key lines of communication (LOC to be used in the CI ops. This plan provides for the conduct of an initial defoliant operation.

2. Mission: to clear vegetation to a distance of 200 meters on both sides of key LOC by means of aerial and ground spray ops in support of current AC projected CI campaigns and to determine the success of such ops.

3. Operations: (map ref: Indochina and Thailand 1:250,00 AMS series L509, sheets NC 48-3, 48-4, 48-7 and 48-8).

A. Concept:

(1) The operation will involve the systematic clearance of vegetation along key highways and access roads to be used as LOCS by SVN forces conducting CI ops. Priority will be given to clearing vegetation along lines of communication (LOC) between seat of govt and key cities to include roads peripheral to zone D. Defoliant ops will be conducted with both US and SVN forces using ground and aerial spray equipment. Aerial spray ops will be conducted by US aircraft, w/USAF markings, manned by US personnel under PACAF control and with V'namese-manned H-34 helicopters equipped with Hidal spraying rig. Ground spray equipment will be manned and operated by RVNAF personnel.

(2) USAF transport aircraft with aerial spray equipment will operate from Tan Son Nhut. USAF aircraft will be crewed by USAF personnel except that Commander 2nd ADVON will be that crews are augmented with RVNAF personnel to assist in identification of target areas. Commander 2nd ADVON will control air defoliant ops conducted by US aircraft and coordinate the SVN helicopter ops through K AOC established in the vicinity of Tan Son Nhut.

(3) Specific missions, method of spraying and the time of execution will be determined by ChMAAG based upon the needs of Commanders responsible for the conduct of CI ops. ChMAAG will submit air mission requirements to Commander 2nd ADVON who will determine the feasibility of the mission in view of available resources, weather and other limiting factors. ChMAAG will determine the feasibility and coordinate the execution of spraying ops conducted by the RVNAF with vehicle mounted spray equipment. Where feasible, target areas will be designated and adequately marked by GVN personnel using colored markers, balloons, helicopters or other means that will be readily identified by forces, air or ground, conducting the defoliant operation. V'namese personnel will be utilized to the maximum extent possible in the handling of chemicals for the defoliant operation to include delivery of defoliants to the spray aircraft under control of Commander 2nd ADVON.

(4) This phase of the operation will not include spraying of "food crops, and action will be taken to ensure that such areas are avoided. In addition, cover [for] the deception ops designed to deny the Communists propaganda material will be conducted. These ops should provide for a logical explanation on the use of defoliant as a non-military venture for improvement and maintenance of transportation networks.

B. Conduct of ops when directed, defoliant ops will be conducted in the following areas in the priority indicated.

Footnote 1: Reference C is printed as 61COUPC file, paper 2. References A and B have not been found.

ROM THE SECSTATE (RUSK) TO THE PRES (KENNEDY)

Wash'tn, 11-24-61, Top Secret

A handwritten note on the source text indicates that the "original" was given to Rostow and the "enclosure" to McGeorge Bundy. A draft of the memo, prepared by U Alexis Johnson, was submitted to the Sec'y of State for his signature under cover of a memo of 11-22, in which Johnson wrote: "The key is not making this an operation in itself but carefully coordinating it with and making it an incidental part of larger ops for resettlement of the Montagnards, the

setting up of an effective border control force, and the ability to mount an effective military operation in Zone D. We must also stay away from the term 'chemical warfare' and any connection with the Chemical Corps, and rather talk about 'weed killers'.

Subject: Defoliant ops in V'nam

I concur with the attached memo from Gilpatric on the foregoing subject. The use of defoliant does not violate any rule of international law concerning the conduct of chemical warfare and is an accepted tactic of war. Precedent has been established by the British during the emergency in Malaya in their use of helicopters for destroying crops by chemical spraying. We will, of course, be the object of an intense Communist "germ warfare" campaign which may be picked up by some neutrals. You will recall that this was the case during the Korean war although the communist charges had no factual basis whatever. On the other hand, I am satisfied that successful plant-killing ops in V'nam, carefully coordinated with and incidental to larger ops, can be .of substantial assistance in the control and defeat of the VC. Carrying out of the operation will be carefully planned and coordinated between State, Defense, USIA, CINCPAC, the Country Team, and the GVN. Detailed plans in this regard have been formulated. Therefore, I recommend that you approve the undertaking of such ops in accordance with Paragraph 8 (b) of Gilpatric's memo; that is, "to go ahead with a selective and Carefully controlled program starting with the clearance of key routes, proceeding thereafter to food denial only if the most careful basis of resettlement and alternative food supply has been created, and holding Zone D and the border areas until we have realistic possibilities of immediate military exploitation." I also concur in Gilpatric's recommendation that this should be done only after careful prior consideration and authorization from Washg'tn of the plans developed by CINCPAC and the Country Team."

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