

**APCEL Seminar Series  
Responding to the Long-Term  
Impacts of Environmental Warfare  
in Vietnam:  
'Voluntary Remediation Initiatives'?**

by

**Eliana Cusato**

**Faculty of Law, NUS**

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*Organised by*



**RESPONDING TO THE LONG-TERM  
IMPACT OF ENVIRONMENTAL WARFARE  
IN VIETNAM:  
‘VOLUNTARY REMEDIATION  
INITIATIVES’?**

**Eliana CUSATO**

Ph.D. Candidate, Faculty of Law  
National University of Singapore  
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A black helicopter is shown in flight, spraying a wide area of a tropical landscape. The helicopter is positioned in the center of the frame, moving from left to right. It is releasing a thick, white mist or spray that covers a large portion of the ground below. The landscape is lush and green, featuring a prominent river in the foreground and middle ground, surrounded by dense tropical vegetation, including many palm trees. In the background, there are more fields and a distant horizon under a clear sky. The helicopter has the number '23' visible on its tail.

**WHAT IS 'ENVIRONMENTAL  
WARFARE'?**

**‘All those weapons and tactics which either intend to destroy the environment *per se* or disrupt normal relationship between man and nature on a sustained basis’**

R. Falk, ‘Environmental Warfare and Ecocide: Facts, Appraisals, and Proposals’ (1973)

### **Military tactics and weapons:**

- High explosive bombs
- Rome Plows
- Chemical herbicides (Agent Orange, Blue, White) i.e. Operation Ranch Hand

### **Military rationales:**

- Removing vegetation cover to facilitate the enemy’s targeting and limit the enemy’s freedom of movement
- Destroying crops and thereby denying the enemy food supply

# THE LEGACY OF 'ENVIRONMENTAL WARFARE' IN VIETNAM

## THE ENVIRONMENTAL IMPACT

- **Destruction of flora, fauna, and ecosystems** (e.g. mangrove forests), loss of biodiversity
- Soil erosion, **degradation of agricultural land**
- Dioxin **contamination** of water and soil



# THE LEGACY OF 'ENVIRONMENTAL WARFARE'

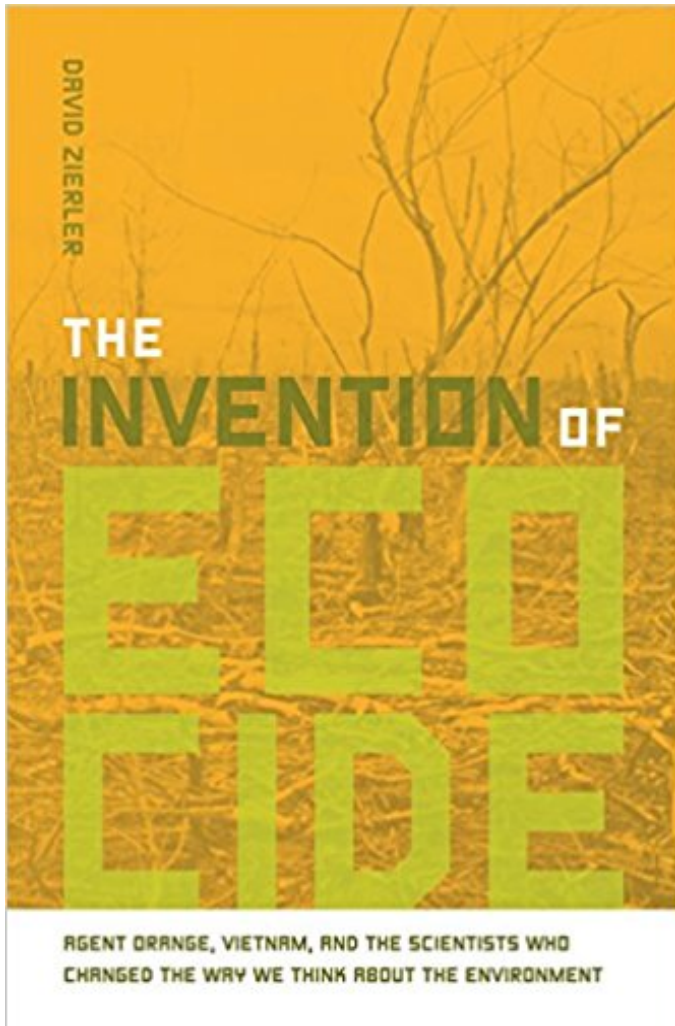
## THE HUMAN IMPACT

- Exposure to high doses of dioxin is associated with cancers, birth defects, respiratory problems, liver damage
- Evidence of health conditions recurrent among the Vietnamese population (e.g. leukemia, sarcoma, non-Hodgkinson lymphoma)
- List of diseases associated with Agent Orange/dioxin exposure compiled by the US Department of Veteran Affairs (e.g. soft tissue sarcoma, Hodgkin's disease, respiratory cancers, prostate cancer, as well as diseases and malformations in children of exposed parents)

# EFFORTS TO ESTABLISH ACCOUNTABILITY

- Mobilization of the academic and scientific communities  
– ‘ecocide’
- UNGA Resolutions
- International War Crimes Tribunal for the Vietnam War
- Domestic litigation in the US

# THE RISE OF THE CONCEPT OF 'ECOCIDE'



- ‘willful, permanent destruction of the environment in which people can live in a manner of their choosing’ – A. Galston (plant biologist)
- ‘acts committed with the intent to destroy, in whole or in part, a human ecosystem’ – R. Falk’s *International Convention on the Crime of Ecocide*



# ADDING THE WORD 'ENVIRONMENT' TO THE LAWS OF ARMED CONFLICT

## 1977 Additional Protocol I

- Article 35(3):

*'it is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause **widespread, long-term and severe damage to the natural environment**.*

- Article 55:

*[c]are shall be taken in warfare to protect the natural environment against **widespread, long-term and severe damage**. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population. Attacks against the natural environment by way of reprisals are prohibited.*

## 1976 Convention on the Prohibition of Military or Any Other Hostile Uses of Environmental Modification Techniques (ENMOD)

# UNGA RESOLUTIONS

- UN General Assembly Resolution 2162 B (XXI), 5 Dec. 1966 calling for a 'strict observance by all States of the principles and objectives of *the Protocol* and condemning 'all actions contrary to those objectives'.
- UN General Assembly Resolution 2603A , 16 Dec. 1969 declaring as 'contrary to the generally recognized rules of international law, as embodied in the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous and Other Gases and Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, the use in international armed conflicts of: a) *any chemical agent of warfare* - chemical substances, whether gaseous, liquid, or solid - *which might be employed because of their toxic effects* on man, animals, or *plants*'.

# INTERNATIONAL WAR CRIMES TRIBUNAL FOR THE VIETNAM WAR



- Created by a group of philosophers, lawyers, and activists
- Reference to the Post WWII Nuremberg Tribunal
- Intended to expose the ‘truth’ about the Vietnam War and ‘arouse the conscience of the world’
- Found that *Operation Ranch Hand* captured the ‘criminal dimension of the American war in South Vietnam’ – genocide against Vietnamese people

# DOMESTIC LITIGATION IN THE US BASED ON ATCA

*Vietnam Association for Victims of Agent Orange/Dioxin et al. v. Dow Chemical Co. et al.*  
(District Court for the Eastern District of New York, 28 March 2005 , and United States Court of Appeals For the Second District, 22 February 2008)

- Civil action against US-registered corporations for aiding and abetting violations of international law and war crimes, and under domestic tort law.
- Victims claims based on international law dismissed because the plaintiffs failed to demonstrate that Agent Orange was used as a poisonous weapon targeting civilian populations:

*Inasmuch as Agent Orange was intended for defoliation and for destruction of crops only, its use did not violate the international norms relied upon here, since those norms would not necessarily prohibit the deployment of materials that are only secondarily, and not intentionally, harmful to humans.*

- Court upheld ‘government contractor defense’ to dismiss the domestic tort claims for product liability

# TOWARDS A 'SOFT' APPROACH TO RESPONSIBILITY?

- Since 2006 renewed cooperation between US and Vietnam and establishment of Joint Advisory Committee
- Since 2007 US funded environmental remediation projects in areas characterized as 'hot spots' for high dioxin contamination AND health and disability programmes
- Projects administered by the State Department, US AID, together with Vietnamese partners



# UNITED STATES AND VIETNAM SIGN MEMORANDUM OF INTENT TO BEGIN DIOXIN REMEDIATION AT BIEN HOA

**HANOI, January 23, 2018** – Today, U.S. Ambassador to Vietnam Daniel J. Kritenbrink joined Senior Lieutenant General Nguyen Chi Vinh, Deputy Minister of National Defense, in witnessing the signing of a Memorandum of Intent between the United States Agency for International Development (USAID) and the Ministry of National Defense Military Science Department to begin the process of dioxin contamination remediation at Bien Hoa Air Base area.

Bien Hoa is the largest remaining hotspot of dioxin contamination in Vietnam. USAID will work with the Ministry of National Defense to first design and then implement a remediation program over the next several years. The United States is committed to working with Vietnam and the Ministry of National Defense to resolve war time legacies while continuing to strengthen the economic, cultural, and security ties between the two countries.

“The only way to begin a long journey is to take the first step. The Memorandum of Intent is that first step, and the journey begins today. The United States looks forward to working with the Ministry of National Defense on this important initiative, deepening our partnership further, and building a prosperous future for both our countries,” said Ambassador Kritenbrink during the signing.

Since 2000, the United States has worked with Vietnam to resolve humanitarian and wartime legacy issues. These include the removal of unexploded ordinance, the identification of remains of missing personnel, remediation of dioxin, and addressing health consequences of the war. USAID, together with the Ministry of National Defense, will soon complete a successful 5-year, \$110 million effort in cleaning dioxin contaminated soil at Danang International Airport.

# WHAT IS THE NATURE OF US-FUNDED PROGRAMMES IN VIETNAM?

- Development assistance
- Reparation
- Ex-gratia payments
- ‘Voluntary remediation initiatives’



# VIETNAM AND BEYOND: RETHINKING RESPONSES TO THE ENVIRONMENTAL IMPACT OF ARMED CONFLICT

- **Arguments in favour of voluntary remediation initiatives:** uncertain legal framework, problems with evidence collection and damage assessment, difficulties with implementation and enforcement, realpolitik considerations, financial constraints
- **Arguments against voluntary remediation initiatives:** denying normative relevance of international law, weaken compliance, undermine expressivist and preventive functions of international law, biased/partial responses (restoration dependent upon political/economic agenda of States involved, their diplomatic relations and foreign policy).



THANK YOU!