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Administrative note:

This report is based primarily on information gathered from open-source material available through the internet. Most of the information used was from United States (U.S.) or other government sources and is thus considered to be in the public domain. Such sources include the CIA (Central Intelligence Agency) Fact Book, U.S. Department of State, and foreign government's web pages. Information that is not in the public domain has been referenced, including a link to its original electronic source. Other sources used include NGO home pages, Relief Web, United Nations Development Program (UNDP) or other United Nation (UN) agency web pages, World Bank, and Asian Development Bank (ADB). Whenever further information available electronically may be relevant, a link to the original internet source is provided.

Welcome -Note from the Director

Dear Reader,

The Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) has a mandate to provide and facilitate education, training, and research in civil-military operations, particularly operations that require international disaster management and humanitarian assistance that require coordination between the Department of Defense and other agencies. In line with this mandate, CFE-DM has conducted research to create reference books on disaster management roles, processes, capabilities and vulnerabilities. This Disaster Management Reference Handbook Series is designed to provide decision makers, planners and responders a basic understanding of regional disaster management plans and structures, including information on key domestic disaster response entities, basic regional background, and local and international humanitarian organizations present in the region. CFE-DM produces country and regional reference books to provide a commonly available baseline of information regarding disaster management environments. Many places in the Pacific Basin are subject to a variety of disasters including floods, droughts, and landslides, and these handbooks provide a context for regional-specific factors that influence disaster management.



Sincerely,

Col Joseph D. Martin Director

Information about the Center for Excellence in Disaster Management and Humanitarian Assistance

Overview



The Center for Excellence in Disaster Management and Humanitarian Assistance is a U.S. Department of Defense organization that was established by U.S. Congress in 1994 and is a direct reporting unit to U.S. Pacific Command. The Center is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii. The Asia-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice.

CFE-DM was founded as part of the late Senator Daniel K. Inouye's vision. The Senator had witnessed the effects of Hurricane Iniki that struck the Hawaiian Islands in 1992, and felt the civilmilitary coordination in the response could have been more effective. He set about to establish the CFE-DM to help bridge understanding between civil and military responders, and to provide a DOD platform for building DMHA awareness and expertise in U.S. forces, and with partner nations in the Asia-Pacific. While maintaining a global mandate, the Asia-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice.

Our Mission

The Center's mission is to advise U.S. Pacific Command leaders; enable focused engagements, education and training; and increase knowledge of best practices and information to enhance U.S. and international civil-military preparedness for disaster management and humanitarian assistance.

Vision

CFE-DM exists to save lives and alleviate human suffering by connecting people, improving coordination and building capacity.

Contact Information

Center for Excellence in Disaster Management and Humanitarian Assistance 456 Hornet Ave JBPHH HI 96860-3503 Telephone: (808) 472-0518 http://www.cfe-dmha.org

Disaster Management Reference Handbook Series Overview

The Disaster Management Reference Handbook Series is intended to provide decision makers, planners, responders and disaster management practitioners with an overview of the disaster management structure, policies, laws, and plans for each country covered in the series. Natural and man-made threats most likely to affect the country are discussed. The handbooks also provide basic country background information, including cultural, demographic, geographic, infrastructure and other basic country data.

Conditions such as poverty, water and sanitation, food security and other humanitarian issues are included. A basic overview of the health situation in the country and disease surveillance is also covered. The handbooks include information on key national entities involved in disaster management, disaster response and preparation, and the military's role in disaster relief. Information on United Nation (UN) agencies, international Non-Governmental Organizations (NGOs), major local NGOs, and key U.S. agencies and programs in the country, are also provided.

The overall aim is to provide a guide that brings together important information about disaster management and response for each country in an effort to provide a basic understanding for the reader. Information in the handbooks are compiled and based primarily on trusted, reliable, publicly-available sources. Much of the information used is from U.S. or other government sources, UN sources, NGO websites, scholarly references, foreign government websites, and various media sources. Whenever further information available may be relevant, a link to the original internet source is provided.

Each handbook is a working document and will be updated periodically as new, significant information becomes available. We hope that you find these handbooks informative, relevant, reliable, and useful in understanding disaster management and response for this country. We welcome and appreciate your feedback to improve this document and help fill any gaps to enhance its future utility. Feedback, comments, or questions can be emailed to cfe-dmha.fct@pacom.mil. You may also contact the Center for Excellence at: (808) 472-0518. Please visit our website (http://www.cfe-dmha.org) to view the latest electronic versions available or to request a hard copy of a disaster management reference handbook.

Executive Summary

Located in the tropical region of Southeast Asia, Vietnam is exposed to a wide variety of adverse natural events. Vietnam is one of the most disaster-prone countries in the Asia-Pacific region, with more than 70 percent of the population exposed to disasters, especially water-related events. The central and southern provinces are particularly vulnerable due to the geography of the country, and have recently endured several severe disaster events. Disasters occurring across the nation have caused significant losses to human life, properties, economic and cultural infrastructure, and severe damage to the environment. This escalation in both frequency and severity of natural disasters and other extreme weather phenomena are likely attributable to climate change. Countries around the world have witnessed severe and unpredictable impacts of natural disasters, and agree that response to climate change cannot rely on efforts by just an individual country, but also by joint actions on a global scale for both mitigation and adaptation.¹

The effects of climate change are very real in Vietnam. According to Vietnam's Climate Change Strategy, damage from natural disasters from 2001-2010 led to 9500 dead and missing people and the loss of about 1.5 percent of GDP each year. Consistent with predicated impacts elsewhere, climate change is likely to hit hardest those areas with high poverty levels. Vietnam's national Climate Change Strategy states that to become a modern, industrialized country by 2020, Vietnam will need to accelerate its production and consumption activities especially in industry, transportation, and urban development, which may result in higher emissions of greenhouse gases. Therefore, their national Climate Change Strategy has set a number of targets between now and 2050 to address potential climate change impacts.²

After making an economic turnaround, Vietnam has one of Southeast Asia's fastest-growing economies. However, rapid population growth and urbanization have resulted in the degradation of both natural resources and the environment, and increased vulnerability to natural disasters. According to the Government of Vietnam (GVN), natural disasters are the direct impediment to economic development, sustainable development and poverty reduction. They are what stand in the way of Vietnam reaching the Millennium Development Goals (MDGs).

The GVN has instituted a disaster preparedness and response structure, which focuses heavily on water related disasters. The Central Committee for Flood and Storm Control (CCFSC), chaired by the Ministry of Agriculture and Rural Development (MARD), was established in 1990 and consists of representatives of government ministries and agencies involved in disaster mitigation, response and relief. The CCFSC is the chief coordinating body that is responsible for disaster management in the country. Each province/city has its own Committee for Flood and Storm Control (CFSC) system and search and rescue teams at all levels (province, city, and commune levels).

The CCFSC coordinates disaster management activities like the Department of Dyke Management and Flood and Storm Control, the Disaster Management Center, the Hydro-meteorological Service, and the Vietnam Red Cross (VNRC). Its main activities are monitoring the effects of storms and floods, gathering damage data, providing official warnings, and coordinating and implementing disaster response and mitigation measures. The CCSFC relies on the administrative structure of the Dyke Department to carry out its disaster assessment, disaster reporting, and emergency coordination duties. ³

The National Strategy for Natural Disaster, Prevention, Response and Mitigation to 2020, which outlines Vietnam's main disaster risk management objectives and the National Target Program (NTP) form the overarching policy framework for disaster risk management and climate change adaption activities. The CCFSC's main mandate is to translate this strategy into action. Other decrees and laws are also complementary. The GVN has prioritized disaster preparedness, recognizing that the most cost-effective measures to mitigate flood related disasters are often non-structural. These measures include flood mapping, river flood warning systems, television-based disaster information and warning systems, training at all government and grassroots levels on disaster preparedness, and reforestation of certain areas. Land use and development have also been addressed through government regulations.⁴

According to its national strategy, there is a need for Vietnam to strengthen institutional capacity and collaboration mechanisms amongst ministries and sectors; developing financial allocation mechanism to meet the needs and effectiveness of Disaster Risk Management (DRM); and enhancing and promoting the effectiveness of Community Based Disaster Risk Management (CBDRM) to raise awareness to communities in responding to disasters. There is a strong need to establish early warning systems for disaster and climate change in highly prone areas. Vietnam needs to develop an information sharing network between ministries, sectors, localities and NGOs to support the policy formulation process; and enhancing coordination of activities and promoting the participation of multi-stakeholders. Vietnam will also benefit from strengthening public-private partnership in Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA); improving scientific research and application of new modern technologies in DRM; and mobilizing support, cooperation and assistance from international organizations, donors and NGOs in DRR and CCA.⁵

A law on natural disaster prevention and control (the Law) took effect in 2014. The Law provides for disaster risk reduction, climate change adaptation and mitigation measures, from national to local and community levels. It outlines natural disaster prevention and control activities, including a national strategy and plans, and stipulations aimed at the integration of disaster prevention into national and local socio-economic development plans. It applies to Vietnamese agencies, organizations, households and individuals; foreign organizations and individuals, and international organizations that are residing or operating in natural disaster prevention and control in Vietnam.⁶

Although Vietnam continues efforts to improve its disaster mitigation and response system, there will likely be disasters in the future that are beyond Vietnam's capacity to manage. While the U.S. military and other assisting states are well-equipped to provide practical assistance in emergency and short-term recovery operations, it is well recognized that good coordination, communication, and cooperation are crucial factors in ensuring an effective response.

Vietnam Country Overview

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Vietnam Disaster Management Reference Handbook | 2015

Country Overview

Vietnam is a tropical country in Southeast Asia, bordered by China to the north, Lao People's Democratic Republic (PDR) to the northwest, and Cambodia to the southwest. Vietnam is a diverse country, home to many ethnicities and several provinces/cities. Vietnam has a population of 94 million people and is one of the densest populations in the world. Vietnam has been listed by the World Bank as one of the five countries that will be worst-affected by climate change.⁸

The area now known as Vietnam has had a long history of dynastic rule and Chinese occupation, with intermittent periods of independence and civil war. In the midnineteenth century, France launched a naval expedition to Vietnam to force the Vietnamese to accept a French protectorate status in support of French commercial and military interests. The conquest of Vietnam by France began in 1858 and was completed by 1884. Over the course of the next several decades, France kept up military pressure until it eventually gained control over the whole country. It became part of French Indochina in 1887.

Poor economic conditions, low wages, and high taxes led to growing resentment of French colonial rule. The 1920s saw a growing nationalist movement demanding reforms and independence. In 1930, Ho Chi Min founded the Indochinese Communist Party. During WWII, the communists organized the Vietminh, or League for the Independence of Vietnam and declared an independent Vietnam in 1945. France refused to grant independence, and war ensued.

Vietnam declared independence after World War II, but the French continued to rule until 1954. War with France was ended when Vietminh Communist forces overran the French base at Dien Bien Phu and the French were defeated under Ho Chi Minh, who took control of the North.⁹ Under the Geneva accords of 1954, Vietnam was divided into the Communist North and anti-Communist South. The French and Vietminh worked out a temporary compromise under which Vietnam would be divided into South and North at the 17th parallel. While communism was established in the North, an anti-communist U.S. ally Ngo Dinh Diem gained the presidency in the South. U.S. and economic military aid to South Vietnam grew through the

1960's in an attempt to bolster the government. War broke out between the North and the South, with the U.S. intervening to support the South. U.S. Armed Forces were withdrawn following a cease-fire agreement in 1973. Two years later, North Vietnamese forces overran the South reuniting the Country under Communist rule. The southern capitol Saigon fell to communist forces in April of 1975. On July 2, 1976, the Social Republic of Vietnam was declared.

Peace and stability eluded Vietnam, however, for the period following war with the U.S., growing border tensions with Cambodia escalated, leading to the Vietnamese invasion of Cambodia. Tensions with China also led to a Chinese invasion into Vietnam. Failed economic policies such as agricultural collectivization and nationalization of businesses hampered Vietnam's recovery from war.

Economic reconstruction of the reunited country has proven difficult as aging Communist Party leaders initiated reforms necessary for a free market. However, since the enactment of Vietnam's "doi moi" (renovation) policy in 1986, Vietnamese authorities have committed to increased economic liberalization and enacted structural reforms needed to modernize the economy and to produce more competitive, export-driven industries.

By the 1990s, the Vietnamese government began to encourage foreign investment and better relations with the U.S. It has seen improved economic growth as it has switched to a marketoriented economy. Since that time Vietnam has emerged as an economic success story. Previously, they were one of the poorest countries in the world, with per capita income below \$100. As of the end 2014, their per capita income was over \$2000.¹⁰

The country continues to experience small scale protests, the vast majority connected to either land use issues, calls for increased political space, or the lack of equitable mechanisms for resolving disputes. The small-scale protests in the urban areas are often organized by human rights activists, but many occur in rural areas and involve various ethnic minorities such as the Montagnards of the Central Highlands, H'mong in the Northwest Highlands, and the Khmer Krom in the southern delta region. ¹¹

Country Profile

Government

Type of Government:

Vietnam is officially a Socialist State with a political system dominated by the Vietnamese Communist Party.

Unicameral National Assembly or Quoc Hoi (500 seats; members elected by popular vote to serve five-year terms)

Elections: last held 22 May 2011 (next to be held in May 2016)

Executive Branch:

Below is a list of current government leaders in Vietnam:¹²

0		
Chief of State	President Truong Tan SANG	since July 2011
Vice President	Nguyen Thi DOAN	since July 2007
Prime Minister (head of government)	Nguyen Tan DUNG	since June 2006
Deputy Prime Minister	Nguyen Xuan PHUC	since August 2011
Deputy Prime Minister	Vu Van NINH	since August 2011
Deputy Prime Minister	Hoang Trung HAI	since August 2007
Deputy Prime Minister	Vu Duc DAM	since November 2013
Deputy Prime Minister	Pham Binh MINH	since November 2013
Ambassador to the U.S. (Vietnam location)	Ted G. OSIUS III	since December 2014
Ambassador to the U.S. (U.S. location)	Pham Quang VINH	since February 2015

Cabinet: Cabinet proposed by prime minister, appointed by the president, and confirmed by the National Assembly

Elections/appointments: president indirectly elected by National Assembly from among its members for a single five-year term; election last held on 25 July 2011 (next to be held in July 2016); prime minister appointed by the president from among members of the National Assembly, confirmed by National Assembly; deputy prime ministers appointed by the prime minister, confirmed by National Assembly

Judicial Branch:

Supreme People's Court consists of the chief justice and 13 judges (chief justice is elected for a five-year term by the National Assembly on the recommendation of the president)

Administrative subdivisions: 63 provinces, 5 municipalities (Can Tho, Haiphong, Danang, Hanoi, and Ho Chi Minh City)

58 provinces (tinh): An Giang, Bac Giang, Bac

Kan, Bac Lieu, Bac Ninh, Ba Ria-Vung Tau, Ben Tre, Binh Dinh, Binh Duong, Binh Phuoc, Binh Thuan, Ca Mau, Cao Bang, Dac Lak, Dac Nong, Dien Bien, Dong Nai, Dong Thap, Gia Lai, Ha Giang, Ha Nam, Ha Tinh, Hai Duong, Hau Giang, Hoa Binh, Hung Yen, Khanh Hoa, Kien Giang, Kon Tum, Lai Chau, Lam Dong, Lang Son, Lao Cai, Long An, Nam Dinh, Nghe An, Ninh Binh, Ninh Thuan, Phu Tho, Phu Yen, Quang Binh, Quang Nam, Quang Ngai, Quang Ninh, Quang Tri, Soc Trang, Son La, Tay Ninh, Thai Binh, Thai Nguyen, Thanh Hoa, Thua Thien-Hue, Tien Giang, Tra Vinh, Tuyen Quang, Vinh Long, Vinh Phuc, Yen Bai

5 municipalities (thanh pho): Can Tho, Da Nang, Hai Phong, Hanoi, Ho Chi Minh City ¹³

Political Party: Communist Party of Vietnam (CPV) with over 3 million members (formerly Vietnam Worker's Party 1951-1976) Diplomatic representation in the U.S.:

Vietnam has an embassy in the U.S. at 1233 20th Street, NW, #400, Washington DC, 20036, Tel: 202-861-0737; Fax: 202-861-0917; Internet home page: www.vietnamembassy-usa.org

Diplomatic representation in the U.S.: Chief of mission: Ambassador Pham Quang VINH (Since February 23, 2015) Chancery: 1233 20th Street NW, Suite 400, Washington, DC 20036 Telephone: [1] (202) 861-0737 Fax: [1] (202) 861-0917 Consulate(s) general: Houston, San Francisco Consulate: New York

Diplomatic representation from the U.S.: Chief of mission: Ambassador Ted G. Osius III (Since 6 December 2014) Embassy: Rose Garden Building 170 Ngoc Khanh St., Hanoi Mailing address: 7 Lang Ha Street, Ba Dinh District, Hanoi; 4550 Hanoi Place, Washington, DC 20521-4550 Telephone: [84] (4) 3850-5000 Fax: [84] (4) 3850-5010 Consulate(s) general: Ho Chi Minh City

Military

Military branches:

People's Armed Forces: PAVN; includes People's Navy Command (with Naval Infantry,), Vietnam People's Air and Air Defense Force Air and Air Defense Force (Khong Quan Nhan Dan), Border Defense Command, Coast Guard (2013)

Military service age and obligation:

18-25 years of age for male compulsory and volunteer military service; females may volunteer for active duty military service; conscription typically takes place annually and service obligation is 18 months (Army, Air Defense), 2 years (Navy and Air Force); 18-45 years of age (male) or 18-40 years of age (female) for Militia Force of Self Defense Force Service; males may enroll in military schools at age 17.¹⁴

Manpower available for military service: Males age 16-49: 25,649,738 Females age 16-49: 24,995,692 (2010 est.) Manpower fit for military service: Males age 16-49: 25,649,738 Females age 16-49: 24,995,692 (2010 est.) Manpower reaching military significant age annually: Male: 847,743 ¹⁵ Female: 787,341 (2010 est.) Military expenditures: 2.37% of GDP (2012) Country comparison to the world: 33

Participation in International Organizations

The following is a list of international organizations in which Vietnam participates. ¹⁶:

Asian Development Bank (ADB) Asia-Pacific Economic Cooperation ASEAN Regional Forum Association of Southeast Asian Nations East Asian Summit Food and Agriculture Organization (FAO) of the United Nations Group of 77 International Atomic Energy Agency International Bank for Reconstruction and Development International Civil Aviation Organization International Development Association International Fund for Agricultural Development International Finance Corporation International Red Cross and Red Crescent Movement (IFRC) International Labor Organization (ILO) International Monetary Fund International Maritime Organization International Mobile Satellite Organization Interpol (International Criminal Police Organization) Intergovernmental Oceanographic Commission International Organization for Migration (IOM) International Telecommunications Satellite organization International Telecommunications Union Multilateral Investment Guarantee Agency Organization for the Prohibition of Chemical Weapons United Nations (UN) United Nations Conference on Trade and Development United Nations Educational, Scientific and Cultural Organization (UNESCO) United Nations Industrial Development Organization United Nations World Tourism Organization Universal Postal Union World Customs Organization

World Federation of Trade Unions World Health Organization (WHO) World Intellectual Property Organization World Meteorological Organization World Trade Organization

Demographics

Vietnam is a country in which many ethnic groups are living together. Understanding the demographic context of Vietnam provides insight into socio-cultural factors that will affect disaster management effectiveness, disaster vulnerabilities, and resident capabilities. It is important to reflect ethnicity, gender, economics, and vulnerable groups in the planning and implementation of disaster preparedness, mitigation, and response activities to address gaps and risks.

Population: 94,348,835 (July 2015 est ¹⁷) Capital City: Hanoi (Population 3.629 Million)

Largest City: Ho Chi Minh City (Population 7.298 million)

Languages: Vietnamese (official)

English (increasingly favored as a second language)

French (some)

Chinese

Khmer

mountain area languages (Mon-Khmer and Malayo-Polynesian)

Age structure: 0-14 years: 24.1% (male 11,948,130/female 10,786,381)

15-24 years 17.22% (male 8,411,108)/female 7,833,327)

25-54 years: 45.05% (male 21,358, 647/female 21,145,416

55-64 years: 7.81% (male 3,376,706/female 3,995,035

65 years and over 5.82% (male 2,115,057/female 3,379,028) (2015 World Fact Book)

Education, literacy, schools:

Literacy Rate: (age 15 and over who can read and write): total population: 94.5%

Male: 96.31%; Female: 92.8% (2015 est.)

Ethnic Makeup

The Vietnamese government recognizes 54 ethnic groups, of which the Viet (Kinh) is the largest. ¹⁸

Ethnic distribution by socio- economic regions

The data in Table 1 indicates that the Kinh people account for the biggest proportion of the population in five (out of six) socio- economic regions: 84.7 percent in the Central Highlands and 98.5 percent in the Red River Delta. In the Northern Midland and Mountain regions, the Kinh people account for only 45.3 percent. The majority of Tay, Thai, Muong and Mong people are living in the Northern Midland and Mountain areas, while most Khmer people are living in the Mekong River Delta.

Ethnic group	Total population	Red River Delta	Northern Midland and Mountain	North and South Central Coast	Central Highland	Southeast	Mekong River Delta
Entire country	85,846,997	19,584,287	11,053,590	18,835,154	5,115,135	14,067,361	17,191,470
Kinh	73,594,427	19,281,129	5,009,353	17,027,036	3,309,836	13,155,502	15,811,571
Тау	1,626,392	57,063	1,400,519	12,524	104,798	50,704	784
Thai	1,550,423	9,363	967,801	523,165	40,556	9,057	481
Muong	1,268,963	75,222	788,909	345,943	35,544	22,702	643
Khmer	1,260,640	284	370	1,278	2,436	72,796	1,183,476
Mong	1,068,189	2,826	971,515	43,889	48,877	992	90

Table 1: Distribution of the 6 Largest Ethnic Groups By Socio-Economic Regions, 2009

ICOUNTRY OVERVIEW

Ethnic distribution by provinces and cities

The Kinh people account for the majority of the population in 53 cities/provinces out of 63 nation-wide. Minorities of Kinh people live in 14 provinces located in the Northern Midland and Mountain areas. However, three provinces out of these 14 (i.e., Thai Nguyen, Bac Giang and Phu Tho provinces) have a greater proportion of Kinh people. Other ethnic groups are distributed throughout Vietnam.

Most people of the Tay ethnic group live in the northern mountainous provinces of Red river.

The distribution of Tay people is as follows: Lang Son (16 percent), Cao Bang (12.8 percent), Tuyen Quang (11.4 percent), Ha Giang (10.4 percent), Bac Kan (9.6 percent), Yen Bai (8.3 percent) and Thai Nguyen (7.6 percent).

The majority of the Thai ethnic group are living in the North West provinces and mountainous provinces located in Nghe An and Thanh Hoa provinces. More than one third of the Thai's population (accounting for 36.9 percent) are living in Son La province, 12 percent in Dien Bien province and 7.7 percent of them are living in Lai Chau province. Approximately one fifth of the Thai's population (accounting for 19 percent) is living in Nghe An province and one seventh of them (14.5 percent) are living in Thanh Hoa province.

The Muong ethnic group: Over 80 percent of the Muong's population is distributed throughout three provinces of Hoa Binh (with 39.6 percent), Thanh Hoa (29.6 percent) and Phu Tho (14.5 percent).

The majority of the Mong ethnic group live in the high mountainous provinces along the Northern border i.e. Ha Giang, Dien Bien, Son La and Lao Cai with a percentage of 21.7 percent, 16.0 percent, 14.7 percent and 13.7 percent respectively Approximately three quarters of Khmer (accounting for 73.4 percent) are living in the three provinces of the Mekong River Delta i.e. Soc Trang (31.5 percent), Tra Vinh (25.2 percent) and Kien Giang (16.7percent).

Figure 1 shows some of the many ethnic groups in relation to province area on the map.¹⁹

Religions: The U.S. State Department's 2013 Report on International Religious Freedom (RIRF) Vietnam, 28 July 2014, provides the following information on religions in Vietnam:

The U.S. government estimates more than half of the population is Buddhist, with the overwhelming majority of those Buddhists (most of whom are of the majority ethnic



Figure 1: Ethnic Groups

group Kinh or Viet) practicing Mahayana Buddhism. Approximately 1.2 percent of the population, or about one million people, almost all from the Khmer ethnic minority group, practices Theravada Buddhism. Roman Catholics constitute 7 percent of the population. Catholicism is growing, with over 6 million adherents in 26 dioceses across the country. Cao Dai, a religion combining elements of many religions, is practiced by 2.5 to 4 percent of the population. Hoa Hao followers constitute 1.5 to 3 percent of the population. Estimates of the number of Protestants range from 1 to 2 percent of the population. Some Protestant denominations are officially recognized at the national level; others are registered locally.

Smaller religious groups that together comprise less than 0.1 percent of the population include 50,000 ethnic Cham, who mostly practice a devotional form of Hinduism in the south central coastal area; 70,000 to 80,000 Muslims scattered throughout the country (approximately 40 percent are Sunnis; the remaining 60 percent practice Bani Islam); an estimated 8,000 members of the Bahai Faith; and approximately 1,000 members of The Church of Jesus Christ of Latterday Saints (Mormons). There is one Jewish synagogue in Ho Chi Minh City serving approximately 150 Jews, mainly foreign residents who live in the city.

Other citizens consider themselves nonreligious, or practice animism or the veneration of ancestors, tutelary and protective saints, national heroes, or local, respected persons. Followers of these traditional forms of worship may or may not term themselves religious.

The government recognizes 37 religious organizations affiliated with 11 recognized religions. The 11 recognized religions are: Buddhism, Islam, the Bahai Faith, Catholicism, Protestantism, Hoa Hao, Cao Dai, the Pure Land Buddhist Home Practice, the Four Debts of Gratitude, the Threefold Enlightened Truth Path, and the Threefold Southern Tradition. Individual denominations within these recognized groups also must be registered. Some Buddhist, Protestant, Cao Dai, and Hoa Hao groups do not participate in government recognized or government registered religious organizations.²⁰

The human rights situation in Vietnam deteriorated significantly in 2013; In January 2013, the prime minister put Decree 92 into effect, further extending controls on religious groups. In its enforcement actions, the government monitors religious groups that operate outside of official, government-registered and government-controlled religious institutions. Prime Minister Nguyen Tan Dung on September 1, 2013, put into force Decree 72, which contains provisions legalizing content-filtering and censorship, and outlawing vaguely defined "prohibited acts." Targets in 2013 included unrecognized branches of the Cao Dai church, the Hoa Hao Buddhist church, independent Protestant and Catholic house churches in the central highlands and elsewhere, Khmer Krom Buddhist temples, and the Unified Buddhist Church of Vietnam.

Vietnam had an estimated 150-200 political prisoners in 2014, including lowland Vietnamese

and upland ethnic minority prisoners, some of whom were detained at least in part in connection with their religious activities. It is criticized that the government targets many independent writers, bloggers, and rights activists. They face police intimidation, harassment, arbitrary arrest, prolonged detention without access to legal counsel or family visits, court convictions, and often severe prison sentences.

Vietnam bans all political parties, labor unions, and human rights organizations independent of the government or CPV. The authorities require official approval for public gatherings and refuse to grant permission for meetings, marches, or protests they deem politically or otherwise unacceptable. If such events go ahead, organizers and participants are sometimes punished.²¹

Key Population Centers

Vietnam has one of the densest populations in the world. Data from the 2009 census conducted by Vietnam's General Statistics Office indicates that Vietnam's population density stands at the 16th position on the list of 51 countries in Asia, and 3rd in South East Asia. In comparison with other adjacent countries, Vietnam's density of population is twice as much as China's (137 people/km2), about 3 times as much as Cambodia's (78 people/km2) and 11 times as much as Laos's (25 people/km2). The reason for this state of population density is massive increase in population while land resources are restricted. However, in the future this rise can decelerate as birth rate in Vietnam has declined significantly in recent years.²²

Vietnam population density also varies by zones with most of population concentrated in two largest agricultural centers of Vietnam which are Red River Delta and South Eastern – Mekong River Delta. Density of population in Red River Delta is higher than all other regions with 939 people/km2, followed by South Eastern with 617 people/km2 and Mekong River Delta with 426 people/km2. Figure 2 shows the population density of Vietnam by regions in 2010.

These regions are the most fundamental agricultural zones in Vietnam, as well as area where two biggest cities of Vietnam (Hanoi and Ho Chi Minh City) are situated, so it should not be surprised that they are the most crowded zones in Vietnam. On the other hand, Tay Nguyen (95 people/km2), Highland and Mountainous area in the North (117 people/

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Population Density of regions in Vietnam 2010

Source: General Statistic Office, 2010



Figure 2: Population Density of Regions in Vietnam 2010

km2) are the sparest regions in Vietnam as their terrain and climate is more extreme to live. ²³

Vietnam's population represents 1.28% of the total world population.

Vietnam ranks number 14 in the list of countries by population.

- The population density in Vietnam is 293 people per km² (2015 World Book).
- 33% of the population is urban (30,482,811 people in 2014).
- The median age in Vietnam is 30.3 years.²⁴

Figure 3 shows the many provinces in Vietnam²⁵

Vulnerable Groups

More than 70% of the Vietnam's population is at risk of natural hazards, flooding and isolation, particularly the rural and urban poor. ²⁶ This group is particularly vulnerable to such events and, in the aftermath of a disaster, often find themselves further entrenched in the cycle of poverty.

The rural poor are not only more likely to reside in hazardous locations; they are also less able to cope with disaster events. They often live in sub-standard housing, have meager financial resources and are dependent on agriculture or other livelihoods that are highly threatened by adverse natural events.²⁷

Communities that are vulnerable or marginalized include rural communities in the Central Highlands and Mekong Delta and urban poor. ²⁸ Vietnam states that there is still a way to go before proper formal and effective social safety nets, welfare systems and insurance services are in place, in particular, for the most poor and vulnerable groups of society. ²⁹

Economics

Vietnam is a medium developed country according to the UNDP Human Development Index and ranks 121 out of 187 in the ranking.³⁰ Political and economic reforms have transformed Vietnam from one of the poorest countries in the world, with per capita income below \$100, to a lower middle income country within a quarter of a century with per capita income of over \$2000 by the end of 2014. To date,

Vietnam has achieved and in some cases surpassed a number of the MDG's particularly with the goals of poverty reduction, education and gender equality.

Over the last few decades, Vietnam has made remarkable progress in reducing poverty. The percentage of people living in poverty dropped from almost 60% in the 1990s to less than 3% today. Vietnam's growth rate has averaged 6.4% per year for the last decade, but it has begun to slow recently. In 2014, GDP growth was 6%, projected to flatten in 2015 and start to pick up in 2016. Vietnam has managed to improve macroeconomic stability, with headline inflation falling from a peak of 23% in August 2011 to about 4.1% for 2014.³¹

In February 2011, the government shifted from policies aimed at achieving a high rate of economic growth, which had stoked inflation, to those aimed at stabilizing the economy, through tighter monetary and fiscal control. Although Vietnam unveiled a broad "three pillar" economic reform program in early 2012, proposing to restructure public investment, state-owned enterprises and the banking sector, Hanoi's progress in meeting its goals is lagging behind its proposed schedule. Vietnam continues to face challenges from an undercapitalized banking sector and nonperforming loans weigh heavily on banks and businesses.³²

Vietnam is a member of the Association of Southeast Asian Nations (ASEAN) which includes countries, such as Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, and Thailand. Vietnam took on the role of President of the ASEAN in 2010. The country utilized its term as the president to accelerate development of the ASEAN Community, strengthen regional solidarity and cooperation, and enhance Vietnam's image at the international front.³³



Figure 3: Vietnam Provinces

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COUNTRY OVERVIEW

With the aim of reducing ASEAN's vulnerability to the risk of disasters, the World Bank, United Nations International Strategy for Disaster Reduction (UNISDR), through the Global Facility for Disaster Risk Reduction, and in collaboration with other international partners have started support for implementing the ASEAN Agreement for Disaster Management Emergency Response (AADMER) to promote sustainable development in ASEAN region. The AADMER is a regional legally binding agreement that unites ASEAN Member States together to promote regional cooperation and collaboration in reducing disaster losses and intensifying joint emergency response to disasters in the ASEAN region. AADMER is also ASEAN's affirmation of its commitment to the Hyogo Framework for Action (HFA) 2005-2015. The HFA, endorsed by 168 countries, is coordinated by UNISDR to provide nations and communities the roadmap to disaster-proof the significant development gains.

Intense rainfall associated with typhoons frequently causes immense destruction in heavily populated coastal areas as well as in the Red River and Mekong deltas, the country's major rice-growing areas. These deltas are also vulnerable to flooding caused by heavy monsoon rainfall. Two of Vietnam's most important economic sectors – industry and agriculture – are located in coastal lowlands and deltas. ³⁴

Figure 4 shows Vietnam's annual economic loss from 1990 to 2013 due to natural disasters.³⁵

Over the past few decades Vietnam has emerged as an important oil and natural gas producer in Southeast Asia. Vietnam has boosted exploration activities, allowed for greater foreign company investment and cooperation in the oil and gas sectors, and introduced market reforms to support the energy industry. These measures have helped to increase oil and gas production. Also, the country's rapid economic growth, industrialization, and export market expansion have spurred domestic energy consumption. ³⁶

Vietnam's main *exports* or commodities include clothes, shoes, electronics, seafood, crude oil, rice, coffee, wooden products, and machinery. ³⁷

Vietnam's key *imports* commodities include machinery and equipment, petroleum products, steel products, raw materials for the clothing and shoe industries, electronics, plastics, and automobiles.³⁸



ECONOMIC LOSSES: 1990 - 2013

Figure 4: Economic Losses for Vietnam due to Natural Hazards

Below is a list of Vietnam's economic categories:

Gross Domestic Product (GDP) 186.20 billion (U.S. dollars) (2014)³⁹

Average Monthly Wage \$150 (U.S. dollars) ⁴⁰

Unemployment rate: 2.5%% (2014 est.)⁴¹

Population below poverty line: 11.3% (2014 est.)

Currency (code): dong (VND)

Exchange rates: 21,149 VND:1 U.S.\$ (2014, est.)

Environment

Environmental considerations influence disaster management in profound ways, from the types of risks that are prevalent to natural protections that mitigate disasters. This section outlines some of the key environmental factors that contribute to Vietnam's disaster hazards and affect potential response operations.

Geography

Vietnam borders China in the north, Lao PDR and Cambodia in the west. The nation is bordering the South China Sea in the east, and the Gulf of Tonkin with the island of Hainan Dao (China in the northeast). Vietnam has an area of 331,689km² and is slightly larger than the U.S. state of New Mexico. Described as an elongated "S"-shaped country, Vietnam has 3,000 km of coastline facing the South China Sea. The country also has a relatively diverse topography being made up of mountains, highlands, deltas, rivers, coastline, islands and peninsulas. It is the diverse topography that makes Vietnam vulnerable to numerous floods, storms and other natural disasters. ⁴² The area of Vietnam includes: (Land: 310,070 sq km; Water: 21,140 sq km; Total: 331,210 sq km) 43

Borders

Vietnam shares maritime borders with Indonesia, Malaysia, Philippines, and Thailand.⁴⁴ The following lists international disputes involving Vietnam:⁴⁵

- Cambodia and Laos have protested Vietnamese squatters and armed encroachments along border
- Cambodia has accused Vietnam of a wide variety of illicit cross-border activities
- There are an estimated 300,000 Vietnamese refugees that reside in China
- The establishment of a maritime boundary with Cambodia is hampered by an unresolved dispute over the sovereignty of offshore islands
- China occupies the Paracel Islands also claimed by Vietnam and Taiwan
- Brunei claims a maritime boundary extending beyond as far as a median with Vietnam, thus asserting an implicit claim to Louisiana Reef
- The 2002 "Declaration on the Conduct of Parties in the South China Sea" has eased tensions but falls short of a legally binding "code of conduct" desired by several of the disputants
- Vietnam continues to expand construction of facilities in the Spratly Islands
- In March 2005, the national oil companies of China, the Philippines, and Vietnam signed a joint accord to conduct marine seismic activities in the Spratly Islands
- Economic Exclusion Zone negotiations with Indonesia are ongoing, and the two countries in 2011 agreed to work together to reduce illegal fishing along their maritime boundary

Relations between China and Vietnam soured in 2014, when a Chinese platform began drilling for oil near the Paracel Islands, which are claimed by both countries. Beijing has laid claim to most of the South China Sea, putting it at odds with several of its neighbors in the region, including the Philippines and Malaysia. China is also locked in a bitter dispute with Japan over a group of tiny islands in the East China Sea. Two Chinese citizens were killed and more than 100 others were injured in the violence that hit parts of Vietnam. Some of the worst violence appeared to have taken place in the central coastal province of Ha Tinh and as a result China evacuated more than 3,000 citizens from Vietnam. ⁴⁶ Refugees and internationally displaced persons include: $^{\rm 47}$

- Vietnam's stateless ethnic Chinese Cambodian population dates to the 1970's when thousands of Cambodians fled to Vietnam to escape the Khmer Rouge and were no longer recognized as Cambodian citizens;
- Vietnamese women who gave up their citizenship to marry foreign men have found themselves stateless after divorcing and returning home to Vietnam (the government addressed this problem in 2009, and Vietnamese women are beginning to reclaim their citizenship)

Climate

Vietnam belongs to a tropical monsoon region, chiefly affected by the Asian monsoon regime: northeast monsoon-wind and southeast monsoon wind. Thus, there are 2 different climatic regions. The southern provinces have two seasons (i.e.; a hot and rainy season from May to October, and a cold and sunny season from November to April). However, the northern region has two transfer periods taking place in April and October. Thus this region has 4 seasons: Spring, Summer, Autumn and Winter. There is little difference in temperature between regions (Hanoi 24 degrees Celsius [°C], Hue 25 °C, and Ho Chi Minh City 27 °C). There is little fluctuation between months in the southern region (2-3%) while the northern region has up to 12 °C in fluctuation. The temperature rarely falls under 20 °C in the southern region, or under 5 °C in the northern region.⁴⁸

Annual rainfall is substantial in all regions and torrential in some, ranging from 120 centimeters to 300 centimeters. Nearly 90 percent of the precipitation occurs during the summer. A fairly dense network of rivers traverses Vietnam. The primary rivers are the Red and Thai Binh in the north, the Ca, Ma, Han, Thach Han, and Thu Bon in the center and the Mekong and Dong Nai in the south. Table 2 shows the annual rainfall and average temperatures for Hanoi and Ho Chi Minh City, Vietnam

Vietnam's terrain is characterized as a low, flat delta in south and north. In the central highlands it is hilly and mountainous (north and northwest).⁴⁹

Hanoi	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (inches)	0.7	1.0	1.7	3.5	7.4	9.4	11.3	12.5	10.4	5.1	1.7	0.9
Min Temp (°C/°F)	14/	15/	18/	21/	24/	26/	26/	26/	25/	22/	18/	15/
	57	59	64	70	75	79	79	79	77	72	64	59
Max Temp (°C/°F)	19/	20/	23/	27/	31/	33/	33/	32/	31/	29/	25/	22/
	66	68	73	81	88	91	91	90	88	84	77	72

Ho Chi Minh City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (inches)	0.6	0.1	0.4	2.0	8.4	12.2	11.6	10.7	13.5	10.3	4.7	1.8
Min Temp (°C/°F)	21/	22/	24/	26/	25/	25/	24/	24/	24/	24/	23/	21/
	70	72	76	78	77	77	76	76	76	76	73	70
Max Temp (°C/°F)	32/	33/	34/	35/	34/	32/	32/	32/	31/	31/	31/	31/
	89	91	93	94	94	90	90	90	88	88	88	88

Table 2: Annual Rainfall and Temperature in Vietnam

Vietnam Disaster Overview

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Disaster Overview

Hazards

Given its high exposure to floods and storms, and the fact that two of its most important economic sectors – industry and agriculture - are located in coastal lowlands and deltas -Vietnam has been listed by the World Bank as one of the five countries that will be worstaffected by climate change. Vietnam has made developmental progress in recent years regarding their strategy for disaster prevention, response, and mitigation. There are identified weaknesses in interagency coordination, linkage between national and provincial authorities, and information sharing. Vietnam has adequate policy and plans but could benefit from Modernization. ⁵⁰ The National Committee for Incident, Disaster Response, and Search and Rescue of the Socialist Republic of Vietnam (VINASARCOM) classifies natural disasters in the following ways:

Natural disasters:

- Storm and tropical low pressure, whirlwind
- Earthquake
- Landslide
- Flooding, flashflood
- Drought

Man-made Disasters:

- Fire disasters: urban fire, industrial zone fire and forest fire.
- Oil spill incident; bio-chemical incidents
- River waterway, maritime accidents and other incidents.

Natural Disasters (Hazards)

Figure 5 represents the relative frequency of Disaster Hazards.⁵¹

High	Medium	Low		
Flood	Rain	Earthquake		
Typhoon	Hail	Frost		
Cyclone	Landslide			
Flash Flood	Forest Fire			
Tornado	Salinity			
Lightning	Intrusion			
Drought				

Figure 5: Relative Frequency of Disaster Hazards in Vietnam

Intense rainfall associated with typhoons frequently causes immense destruction in heavily populated coastal areas as well as in the Red River and Mekong deltas, the country's major rice-growing areas. These deltas are also vulnerable to flooding caused by heavy monsoon rainfall.

High year-to-year variation in rainfall across some regions of the country means that some areas that experience floods in rainy seasons can also experience drought in dry seasons. Figure 6 pictures depict two of Vietnam's hazards including flooding (photo left) and drought (photo right).⁵²



Figure 6: Vietnam Flooding and Drought Hazards

The **"National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020"**⁵³ approved by Prime Minister, No. 172/2007/QD-TTg, 16 November 2007, classifies natural disasters in Vietnam as typhoon, flood, inundation, drought and desertification, salinity intrusion, whirlwind, cyclone, landslide and erosion, earth quake and tsunami, and sea surge. Each classification is discussed in more detail below.

Typhoon

Vietnam is located in the northwest of the Pacific Ocean, one of the storm-prone areas with a vast and violent number typhoons and an increasing trend especially in the recent three decades. Typhoon is one of the major and dangerous types of natural disasters in Vietnam. Each year, Vietnam suffers from 10 to 15 typhoons and floods that severely affect 50% of the land area and 70% of the population of Vietnam. ⁵⁴ In more than 50 years (1954-2006), there were a total of 380 typhoons and tropical depressions in Vietnam, of which 31% hit the North, 36% to the Northern Central and Middle Central Part and 33% to the South Central and the South. Typhoons usually accompany with high tide and heavy rain, thus resulting in heavy and long rains and floods.

Floods

Floods in Northern river systems

The basin areas of the Red River-Thai Binh River are 164,300 km², in which 87,400 km² are on the territory of Vietnam, crossing 23 provinces and cities and accounting for 75.7% of the natural land area of the North.

Flood season in the Red river and Thai Binh river system normally occurs from May to September, earlier than that in other regions. Annually, about three to five floods occur within the region, each of them may last from 8 to 15 days, depending on its scale and strength. Major floods in the Red river are often generated from three rivers of Da, Thao and Lo, of which the Da River plays a decisive role contributing 37%-69% of the flood flow in Son Tay (49.2% on average), while the Lo river contributes 17%-41.5% (28%) on average) and the Thao river contributes the lowest proportion – 13%-30% (19% average). Floods in the Thai Binh River are often generated from three rivers of Cau, Thuong and Luc Nam and partly from the Red river through the Duong river. Flood amplitude is high on the Red river system, above 10m in Hanoi, whereas that of the

Thai Binh River is above 6m in Pha Lai. 55

Floods on rivers in the Central

The flood season on the rivers from Thanh Hoa to Ha Tinh is from June to October every year. Floods on these rivers generally occur on main streams thanks to the dyke systems preventing the overflow. Flood amplitude is above 7m on the Ma river system and above 9m on the Ca river system. On the rivers from Quang Binh to Binh Thuan, the flood season is from September to December. This region is characterized by short and steep river systems with rapid flows. Dyke systems in this region are relatively low or uncompleted. Therefore, floods occur on the mainstreams and spread across the floodplains with the amplitude of above 8m.

Floods on rivers in the Central Highlands

There is no major river system in the region, and annual precipitation is low. The influenced area of floods in this region is narrow and characterized by mountainous and flash floods. Flood amplitude at Dabla bridge on the Dabla river is 10m.

Floods in the Eastern South rivers

Rainfall is not very high and thick and diverse vegetation covers forests. Therefore, floods in the Dong Nai river are not strong but are longlasting. Nevertheless, historical floods have occurred.

Floods in the Mekong River Delta

The flooding level in the Mekong river delta is generated from upstream floods and also directly influenced by tides and water reserving capacity of Tonle Sap. The progress of floods in the Mekong river delta is slow and floods last for a long period of 4 to 5 months annually, causing inundation in almost areas of the Mekong river delta.

Flash floods and mud floods

Flash and mud floods are often found in mountainous and hilly areas that are characterized by steep slopes, heavy rains and disadvantaged drainage conditions. Flash floods also may occur due to the failures of small reservoirs or landslides blocking up flows. Flash floods have occurred and threatened in all 33 mountainous provinces of the 4 regions, namely the Northern Mountains, the Central, the Central Highlands and the Eastern South of Vietnam. Due to climate changes in recent years, flash floods have become more frequent in Vietnam with two to four flash floods occurring

IDISASTER OVERVIEW

on average every year during the flood season. In many cases, flash floods happen frequently at a same location. The occurrence of flash floods is usually sudden and within a small area, but very severe and often causes tremendous human and asset losses. Examples of typical flash floods are the ones that occurred in Son La town in 1991, in Muong Lay and Lai Chau in 1994, in Ha Tinh in 2002, and in Yen Bai in 2005. Currently flash floods are unpredictable but can be proactively prevented by zoning high risk areas and establishing warning systems. Figure 7 shows INFORM's index⁵⁶ for risk management for Vietnam in reference to Hazards score. As you can see flood hazards meet the 10/10 risk index with cyclones being a close second at 9.61/10.

Inundation

Inundation in Vietnam is usually caused by heavy rainfall over extended periods of time in some provinces. Although resulting in limited human loss, it causes remarkably negative impacts on agricultural production and the ecological environment.

Droughts and desertification

Drought is a common type of disaster in Vietnam. In recent years, drought continuously happens throughout the country. In some particular years, droughts reduced 20-30% of the food productivity, thus severely threatening people's livelihoods and daily life. Drought control is difficult due to water shortage and depleted upstream reservoirs. Prolonged droughts result in desertification risks in several regions, especially the South Central, sandy coastal areas and slope lands in the highlands and mountain areas.

Salinity intrusion

The coastline of Vietnam is 3,260 km long with many river estuaries, therefore salinity intrusion is found along the entire coastline at different rates. Three zones at higher risks of salinity intrusion are the South West coastal provinces, Central coastal provinces and the downstream part of the Dong Nai River. The South West coastal region is the most severely affected by salinity intrusion with 1.77 million hectares of salinity land, accounting for 45% of the total area. Salinity intrusion prevention and fresh water reservation in this area are usually very costly.

Whirlwind

Whirlwind is a phenomenon of accidental strong wind within a narrow extent generated by extremely strong developing thunderclouds. A whirlwind may have sudden change of direction, and the wind velocity is from Grade 8 or more.



Figure 7: INFORM Country Risk Profile: Risk Dimensions and Components

Accompanying whirlwinds are usually showers, or even hails in some cases.

Cyclone

Cyclone, also called tornado is a whirlwind in a narrow area but has a very powerful strength (equivalent to a strong windstorm), formed by a strong and specially structured thundercloud. A thundercloud may form two or three tornados at the same time, which is then combined into a cyclone. A cyclone often goes with showers, rainstorm or hails with dusts and sand.

Both whirlwind and cyclone are violent types of natural disasters. They happen suddenly and are not yet forecasted, therefore they cause vast and unpredictable consequences but that of cyclone is considerably more serious. Whirlwinds are often accompanied by strong winds that pull down trees and houses, destroy communication and power systems, as well as sink small boats and ships. Cyclones, due to stronger winds, high velocity and frequent directional changes, often cause violent damages. Whirlwinds and cyclones are common phenomena in Vietnam, and their frequency has increased in recent years.

Landslide and erosion

Landslide is a common type of disasters in Vietnam, consisting of river bank erosion, coastline erosion, landslides on mountain slopes, and land subsidence. Landslides are usually caused by external factors (water), internal factors (geological changes) and human activities (unplanned mineral exploitation or construction).

River bank erosion is very common throughout the country. It causes remarkable losses of residential and cultivated land area and destroys many villages along riverbanks.

Coastline erosion occurs due to waves, tides, seawater rise and sea currents. Coastline erosion has led to sea intrusion, causing lost land and destroyed environment.

Landslides in hill and mountain slopes are usually caused by heavily concentrated rains combining with weak geological structure and human impacts like mountain destruction for roads and forest destruction. Landslides often come with mud floods and cause serious damage to the human life and assets.

Earthquake and tsunami

Earthquake is the phenomenon of ground surface vibration; caused by the sudden movements of geological blocks in the earth's womb, volcanic eruptions, landslides, and cave collapses. Earthquakes have occurred in Vietnam, though in a limited strength.

Tsunami is the phenomenon of long circle ocean waves at a high-propagated speed. When reaching the coastline, depending on the depth of the sea and the topography of the coastal area, these waves can be tens of meters high and travel deeply into the land, causing vast catastrophes. Tsunami is the result of earthquakes in the ocean bed. Though a tsunami has not yet occurred in Vietnam, many coastal areas of Vietnam may be affected by a tsunami due to earthquake potentials in some neighboring countries.

Sea surge

Sea surge is the phenomenon of annual average of sea level in recent years higher than the multi-year average of sea level, resulted from the effects of global climate change. ⁵⁷

Figure 8 shows Vietnam's natural disaster hazards based on region. ⁵⁸



Figure 8: Vietnam's Natural Disaster Hazards Based on Region

Below is a sample of recent disasters in Vietnam:

 2015- Flash floods triggered by Tropical storm kill 7, leave 4 missing in Son La Province ⁵⁹

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- 2014- Typhoon kills 11 in Vietnam, 26 in China⁶⁰
- 2013- Typhoon Haiyan- hits northern Vietnam, near the border with China causing the evacuation of 900,000 and 13 deaths ⁶¹
- 2012 Powerful Storm Son-Tinh kills at least 30 in Philippines, Vietnam⁶²
- 2010- Tropical Storm Conson causes flash flooding, landslides, and fatalities in Northern Vietnam ^{63,64,65}
- 2010- Drought grips parts of China, Southeast Asia amid dam concerns⁶⁶

Major Disaster Events

Over the past 50 years, Vietnam has endured more than 400 storms and tropical depressions. In addition to incessant storms, the country suffers from frequent drought and salt water intrusion that has negatively impacted agriculture, reducing from 20-30% of agricultural production. Estimated material loss accounts for about 1.5% of GDP per year. In 2010 alone, Vietnam was affected by six storms (four at sea and two on land) and four historical floods, resulting in the death of 366 persons, 96 persons missing, 493 persons wounded and over 300 thousand hectares of farm production damaged. The following summarizes some past disaster events by regions.

The Red River Delta

In September 2003, highly concentrated torrential rains caused severe inundation to most of the rice cultivation area of Thai Binh Province. Other provinces such as Ninh Binh and Nam Dinh also endured serious inundation. The total area of rice cultivation of the three provinces affected by the inundation exceeded 120,000 hectares; of which 60,000 hectares was in Thai Binh Province (half of this area was totally destroyed). The damage caused to aquatic production was also large.

The Central Region (the North Central and Central Coast)

Within a month (November 1 to December 6, 1999), almost all provinces in the central and southern parts of Central Vietnam were exposed to two spells of torrential rain which caused two big floods in a vast area from Quang Binh Province to Khanh Hoa Province. The aggregated rainfall was recorded at 2,500mm in Thua Thien-Hue; 2,000-2,500mm in Quang Tri, Quang Nam, Quang Ngai, Binh Dinh and Da Nang; 1,000 -1,500mm in Quang Binh, Phu Yen, Khanh Hoa, and Ninh Thuan. The highest daily rainfalls were 1,384mm (measured from 7am on 2nd November to 7am 3rd November) and 1,009mm (measured from 1pm on 3rd November to 1pm on 4th November) in Hue City and in Quang Ngai Province's Son Giang area, respectively.

The two spells of torrential rain caused two extremely severe floods in Central Vietnam. During the floods, water levels on all rivers exceeded the third alarm levels and water levels on some rivers were equivalent to or exceeded historical flood levels. Flooding killed 715 people, inundated nearly 1 million houses, swept away thousands of houses, and incurred an economic loss of nearly 5,000 billion dong. This loss was among the greatest disaster related damage records of the 20th century in Vietnam.

The Cuu Long Delta

The Cuu Long Delta has endured regular substantial flooding, with return frequencies being the highest ever recorded. Extremely devastating floods were seen in years 1994, 1995, 1996, 2000, 2001, and 2002. Particularly, flooding in 2000 caused the highest damage to provinces frequently vulnerable to inundation in the Delta. Flood water levels in some areas were 30-50 cm higher than the ones recorded in previous highest flood years of 1961, 1978, and 1996. The flood killed over 400 people and caused an economic loss of nearly 4,000 billion VND.

Mountain areas

A number of typical flash floods have been recorded such as the flash floods in provinces of Lai Chau and Son La in 1994, 1996, 2000 and 2002; the flash floods in provinces of Lao Cai, Ha Giang, and Cao Bang in 2000, 2001, 2002 and 2004; the flash flood in Binh Thuan province at the end of July 1999 causing 30 deaths and hundreds of house losses; and especially the historical flash flood from September 17-22, 2002 at two districts of Huong Son and Huong Khe of Ha Tinh Province, that caused 53 deaths, 111 people injured, 7,253 houses swept away and collapsed, 53,210 houses submerged and affected, 6,881 hectares of rice and other crops buried and submerged.

The Central Region – affected most by natural disasters

Provinces in this region from Thanh Hoa (Ma River Basin) to Binh Thuan (SERC Basin) are most affected by typhoon and flood. Statistics indicate that there were 494 storms and tropical low pressures observed in Vietnam from 1954 to 1999. On average, there are about 10.7 typhoons and tropical depressions that occur each year. Table 3 and Figure 9 provide an insight into the history of significant natural disasters in Vietnam over the last fifty years.^{67,68}

Disaster	Date	No. Killed	Disaster	Date	No. Total Affected
Storm	Sept-1964	7,000	Storm	Sept-1980	9,027,174
Storm	Nov-1997	3,682	Storm	July-1980	6,624,710
Storm	Sept-1953	1,000	Flood	July-2000	5,000,004
Storm	Oct-1985	798	Storm	Oct-1989	4,635,762
Storm	May-1989	751	Flood	Aug-1978	4,079,000
Flood	Oct-1999	622	Flood	Oct-1999	3,504,412
Epidemic	Jan-1964	598	Drought	Dec-1997	3,000,000
Storm	July-1996	585	Flood	Sept-1985	2,800,000
Storm	Sept-1983	578	Storm	Sept-1986	2,502,502
Flood	Jul-2000	460	Storm	Sept-2009	2,477,315

Table 3: Natural Disaster Casualties Based on Disaster Type

Climate Change

While rapid economic growth has created opportunities for people and businesses in Vietnam, increasing evidence shows climate change threatens the country's development progress. At the same time, Vietnam's greenhouse gas emissions and overall carbon intensity have significantly increased as a result of the economic expansion. Because of the advent of climate change, within the last decade, natural disasters in Vietnam have been increasingly severe in terms of magnitude, frequency and volatility.

Rainfall events are expected to become heavier, increasing the frequency and magnitude of flash floods, seasonal river floods and coastal floods in many areas of Vietnam. Also, typhoons are anticipated to become more frequent and stronger, and storm pattern behavior is expected to change. While climate change has been affecting countries worldwide, Vietnam's geographical factors, such as its long coastline, its already pressured natural resources, location of population, poverty and exposure to sea level rise, was a main reason why the UN Convention Framework for Climate Change identified Vietnam as one of the top five countries expected to be most impacted by its effects.⁶⁹

The GVN has identified climate

change as a priority area for development assistance due to Vietnam's extreme vulnerability to climate change impacts.⁷⁰ Vietnam was recognized at the 13th Conference of Parties to the United National Framework Convention on Climate change. The potential for rising sea levels and increased storm risks in low lying deltas and on Vietnam's coast line are of particular concern. ⁷¹ Thus, United States Agency for International Development (USAID) has identified Vietnam as a priority country for climate change programming. One estimate predicts a sea level

NATURAL DISASTER CASUALTIES: 1990-2013



Note: Casualty in 1997 mainly caused by Linda typhoon

Figure 9: Natural Disaster Casualties from 1990-2013

rise of 33 cm by 2050 and up to 1 meter by 2100. This could conceivably affect 11 percent of the population and reduce the Gross Domestic Product by ten percent.⁷²

Figure 10 poses the disaster hazard question regarding climate change which is what would happen if temperatures rose just a few degrees and sea level were to raise, what potential impacts would it have on Vietnam?⁷³

Vice-President Nguyen Thi Doan addressed Vietnam's progress in addressing climate change concerns during the 3rd UN World Conference on Disaster Risk Reduction. Vietnam has been supplementing their legal framework and policies on disaster preparedness and is in the process of developing a National Strategy for Climate Change. This has led to significant reductions in human and property losses. Over the last five years, the number of deaths and missing persons has been reduced by 8 percent while the number of injuries has been reduced 17 percent. Additionally, Vietnam is participating in Sustainable Development Goals and the Post-2015 Development Agenda of the United Nations, with high priority being given to climate change adaptation.⁷⁴

Manmade Disasters (Hazards)

Logging and slash-and-burn agricultural practices contribute to deforestation and soil degradation; water pollution and overfishing threaten marine life populations; groundwater contamination limits potable water supply; and growing urban industrialization and population migration are rapidly degrading the environment in Hanoi and Ho Chi Minh City.⁷⁵ Vietnam is one of 13 countries chosen by the United Nations Reducing Emissions from Deforestation and Degradation Program, and has submitted a Readiness Preparation Proposal to the World Bank's Forest Carbon Partnership Facility.⁷⁶

The National Environmental Agency, a branch of the Ministry of Science, Technology, and Environment, is responsible for environmental protection. At the provincial level, the departments of Science, Technology and the Environment bear responsibility. Urbanization, industrialization, and intensive farming are having a negative impact on Vietnam's environment. These factors have led to air, water, and noise pollution especially in urban and industrial centers like Ho Chi Minh City and Hanoi.

Pollution levels in surface and ground water are another concern as are drainage

and sewage problems. Additionally, most drainage systems are for combined usage, mixing rainwater runoff with untreated domestic wastewater. Except for solid waste that is burned in a controlled environment, most industrial waste is still disposed of together with domestic waste without proper treatment. Currently, there is no industrial waste management and control system in place in Vietnam.⁷⁷

Infectious Disease

Vietnam's population is susceptible to several infectious disease threats such as Dengue, HIV, Hepatitis A, Malaria, Measles, Typhoid, Japanese B Encephalitis, Rabies, Bird Flu, and Tuberculosis. More information on these communicable diseases can be found in the Health section of this document.

Endemic Conditions

Vietnam remains heavily contaminated by explosive remnants of war, primarily in the form of Unexploded Ordnance (UXO) including extensive contamination by cluster munitions dating from the war with the U.S. The U.S. is the largest single donor to Humanitarian Mine Action (HMA) in Vietnam, and the two countries signed a memorandum of understanding on continued UXO cooperation in December 2013. While legacy issues such as UXO/demining, MIA accounting, and Agent Orange (a defoliant used by U.S. forces) provided the foundations for the U.S.-Vietnam defense relationship, mutual interest in addressing the challenges of humanitarian assistance/disaster relief, search and rescue, and maritime security have allowed the defense relationship to accelerate, with Vietnam participating in U.S.-provided capacitybuilding training in these areas. 78



Figure 10: Smart Investment for Vietnam's Sustainable Future

Vietnam

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Organizational Structure for Disaster Management

Vietnam Disaster Management Reference Handbook | 2015

Organizational Structure for Disaster Management

This section will detail the organizational structure of Vietnam's disaster management framework. The Law on Disaster Prevention and Control (2013) stipulates that disaster prevention should have a dedicated agency. However, this is unclear for Vietnam. The process of forming a dedicated agency that involves the central to local level and the coordination between the ministries working in the area of DRR is very unclear. Many ministries, agencies, and committees overlap in their disaster management roles. ⁷⁹ Figure 11 represents the disaster management system in Vietnam.⁸⁰

In Vietnam, government responsibilities for disaster management are delegated between many different committees, ministries and

departments, and their roles are dependent on the type of disaster, as opposed to the multihazard approach. The current flood and storm control structure also decentralizes management functions to the provincial and sectoral levels. These include: annual disaster planning, contingency planning, budgeting, capacity building and awareness-raising. According to the State Budget Law, the people's council at provincial level has the authority to approve budgets and allocate budgets according to a prioritization of needs, including operational budgets for DRM including for the CCFSC's allowances, basic equipment, utilities, admin costs, etc. However, although responsibilities are decentralized, local authorities generally have insufficient financial resources for the training of volunteers, local staff, purchasing equipment, etc. to carry out their duties effectively. Since funding is not recurrent, such items are only supported on an ad hoc basis.⁸¹

The MARD and the CCFSC are agencies responsible for state management in natural disaster prevention, response and mitigation. They are coordinating the implementation of the natural disaster prevention response and



Figure 11: The Structure of Disaster Management and Search and Rescue in Vietnam

mitigation plan to 2020, specifically:

- Monitoring, checking and promoting the implementation of ministerial, sectoral and local plans
- Acting as national focal point for international cooperation to mobilize resources for natural disaster prevention, response and mitigation
- Consolidating and assessing the implementation of the annual and 5-year sectoral and local plans and submit to the Prime Minister for adjustments
- Directly steering programs and projects under scope of responsibilities of the Ministry⁸²

Vietnam utilizes a "four on-the-spot" response structure, which is similar to the U.S. Incident Command System and National Incident Management System.⁸³ This motto was developed from experiences in protecting and strengthening the dyke system in the Red River delta and in the early 1970's. This experience showed much work was required to ensure the safety of the dyke system and the prevention of flooding for the plains. The work required the leader to be able to organize, coordinate all mobile resources from the society as a whole and from the existing political system. All actors were required to be proactive in taking a specific role at any stage or at any point in time during the protection of the dyke system. Since then the idea was gradually developed into the four-on-the-spot motto which included leadership on-the-spot, human resource on-the-spot, means and materials on-the-spot, and logistics on-the-spot. There are four components of this system: Command, Transportation, Resources, and Forces. The concept generally means that each household or locality should prepare all essential items to prevent or respond to a natural disaster, which may occur at the locality at any given time. The four on the spot motto was included in two legal documents issued by the government. Item D, Section 7, Article III of Decree No. 08/2006/ND-CP. Dated January 16, 2006 stipulates in detail some articles of the revised Ordinance on Flood and Storm Prevention.

The four on the spot stands for:

- On the Spot Forces
- On the Spot Materials
- On the Spot Facilities
- On the Spot Command

It states clearly that in areas where natural disasters occur frequently, the Peoples Committee should organize training and simulation exercises for agencies directly engaging in flood and storm prevention and rescue; develop preparedness plans, and mobilize all local resources under the "four- on- the- spot motto.⁸⁴

Community Based Disaster Risk Management in Vietnam

The CBDRM approach promotes community participation and ownership and encourages communities and government to take a proactive approach to managing risks of natural disasters. The GVN's objective is to establish CBDRM initiatives in 6,000 of the most vulnerable communes and villages by 2020. ⁸⁵

The international donor community, including USAID, channels most of its disaster preparedness and risk reduction efforts through the CBDRM program. Local authorities and residents have given strong support to the implementation of CBDRM projects in various localities and have the cooperation from government agencies at all levels. ⁸⁶

Flood, Storm Control and Disaster Mitigation Network

Vietnam's government agencies are responsible for various disaster management and climate change policies. The responsibilities of key agencies are listed below:

Central Level: (Water Sector Review Project)

The GVN performs the function of state management over activities of flood and storm control nationwide, and issues legal documents and regulations in relation to this matter. When a natural disaster exceeds the response capacity of central ministries, agencies and provinces, the Government makes the decision on mobilizing necessary resources for responses, relief, recovery and reconstruction in order to minimize damages and quickly restore public life. When there is an extremely high risk of natural disaster, the Prime Minister is responsible for proposing the National Assembly's Standing Committee or the President of the country to announce an emergency case for timely responses.

The National Committee for Searching and Rescue was established according to the Prime Ministers' Decision No. 760/TTg dated 23 October 1996. The NCSR is chaired by a Vice-Prime Minister, who is assisted by four vice-

IORGANIZATIONAL STRUCTURE

chairmen. Of those, a Vice Minister for National Defense should be the standing vice chairman. The committee also has four other members who are delegated to provide guidance and organize efforts for search and rescue of humans and the means of transport attacked by natural disasters, the lives and property of individuals and the State in case of disasters; and to mobilize and coordinate various forces and facilities of the central ministries, agencies, provinces and organizations and individuals for timely search and rescue, and be responsible for their decisions in those cases. The NCSR are also expected to coordinate with regional countries to do search and rescue.

Local Levels (Province, District and Commune Communities for Flood and Storm Control)

These local level committees for flood and storm control are established by the People's Committees of the relevant level, and are responsible for assisting the People's Committees of the relevant level in preparing and guiding the implementation of solutions for flood and storm control within their territories. The local level committees for flood and storm control are also responsible for protecting structures of flood and storm control, economic zones and the local people from natural disasters, as well as for recovery of disaster consequences. Provincial Committees for Flood and Storm Control consist of a chairman, who are either the Chairman or a Vice Chairman of the provincial People's Committee; a standing vice chairman who is the Director of the provincial Department of Agriculture and Rural Development; and members who are Directors or Deputy Directors of provincial Departments and agencies involved in the local efforts of flood and storm control.

Committees for Flood and Storm Control of various Ministries.- Committees for Flood and Storm Control of various Ministries are established by the heads of the ministries and are responsible for assisting the ministries' leadership to: prepare and implement the ministries' plans for flood, storm control and disaster mitigation; protect technical, physical facilities and human resources directly managed by the ministries; manage materials in stock and standby facilities for flood, storm control, responses and recovery in accordance with the given functions of the ministries; timely provide, upon the receipt of the CCFSC's orders, the technical materials and facilities managed by the ministries in order to respond and support on time in case of emergency, as well as to help in recovery from

the disaster consequences; and learn lessons on storm and flood control so as to disseminate to the provinces and ministries' agencies. Figure 12 depicts the organizational chart of the CCFSC.

Foreign Disaster Relief and Emergency Response

Disaster Relief Program Description

Pursuant to 10 U.S.C. 404, the Department of Defense (DOD) can assist foreign countries to respond to man-made or natural disaster situations when necessary to prevent loss of lives. After the local U.S. Embassy has officially declared a disaster, the Office of Foreign Disaster Assistance (OFDA) assesses the needs and priorities of the country and may request DOD assistance. The assistance may be in the form of transportation, excess property items, Humanitarian Daily Rations (HDR), or some other commodity. The Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) appropriation or AID may fund transportation of disaster relief.

Foreign Disaster Relief and Emergency Response Program Process

When a foreign country suffers a disaster, it may request assistance through the U.S. Embassy. The Department of State (DoS) and OFDA validate the request. If deemed necessary, the DoS requests disaster relief assistance from the DOD. Assistant Secretary of Defense (Special Operations and Low Intensity Conflict) approves the request and forwards it to Defense Security Cooperation Agency (DSCA) for action. DSCA (Programs Directorate) identifies the required supplies (HDRs, Excess Property, etc.) and works directly with the Joint Staff Logistics Directorate (J4) to provide transportation in support of disaster relief efforts.

Congressional Notification for Foreign Disaster Assistance

Not later than 48 hours after the commencement of disaster assistance activities, the President is required by law (10 U.S.C. 404) to transmit a report to Congress containing notification of the assistance (proposed or provided) and a description of the following as is available: the manmade or natural disaster for which disaster assistance is necessary; the threat to human lives presented by the disaster; the U.S. military personnel and material resources involved; the disaster assistance provided
GOVERNMENT



Figure 12: Organization Chart of the Central Committee for Flood and Storm Control

by other nations or public or private relief organizations; and the anticipated duration of the disaster assistance activities.

U.S. Government Agencies

U.S. Government & Overseas HADR

The DoS is the leady U.S. agency in responding to overseas disasters. Within the DoS, the USAID is responsible for coordinating international disaster assistance. Within USAID, the OFDA is responsible for coordinating humanitarian assistance. DOD involvement in overseas humanitarian assistance and disaster relief operations must be requested and coordinated with USAID through OFDA and the relevant U.S. embassy.

U.S. Embassy Vietnam

Website: http://vietnam.usembassy.gov/

President Bill Clinton announced the formal normalization of diplomatic relations with the Socialist Republic of Vietnam on July 11, 1995. Both nations had upgraded their Liaison Offices that opened in January 1995 to embassy status. As diplomatic ties between the U.S. and Vietnam grew, the U.S. opened a consulate general in Ho Chi Minh City, and Vietnam opened a consulate general in San Francisco. In 2009, the U.S. was permitted to open a consulate in Danang, and in 2010, Vietnam officially inaugurated a consulate general in Houston.⁸⁷

Contact Information:

U.S. Embassy Hanoi #7 Lang Ha Street Ba Dinh District, Hanoi Tel: (84-4) 3850 5000

Defense Attache' Office

Website: http://vietnamembassy-usa.org/ embassy/offices-sections/defense-attache

As the senior military office in country, the Office of Defense Attache (DAO) assists in coordinating the implementation of U.S. military policy and represents the interests of the Secretary of Defense, Commander of U.S. Pacific Command, and the Service Chiefs. The DAO is consequently responsible for analyzing and reporting military developments in Vietnam in the context of evolving global and regional security conditions in order to inform the

evolution of military policy towards Vietnam and Southeast Asia. The DAO also coordinates all security cooperation activities between the U.S. military and those of Vietnam in both bi-lateral and multilateral forum and in all spheres of military activity.⁸⁸

Contact Information:

Defense Attache Office

1233 20th Street, NW Suite 400 Washington, DC 20036 Tel: (202) 293-1822 Fax: (202) 293-1842

U.S. Agency for International Development (USAID) Website: http://vietnam.usaid.gov/

USAID is the lead agency for the U.S.

Government providing economic development and humanitarian assistance to people around the world. USAID/Vietnam's programs help reduce the incidence of HIV/AIDS avian influenza, facilitate trade and economic development, provide support for persons with disabilities, and provide disaster assistance.⁸⁹

USAID's staff in Vietnam consult extensively with the GVN, the nongovernmental organization (NGO) community, the U.S. Embassy, the private sector, and other groups to determine the types of aid that are needed. The Mission then formulates a strategic plan that proposes how the aid will be used and the levels of funding that are required. This plan is reviewed by USAID headquarters in Washington, D.C., and is incorporated into the President's annual foreign assistance bill, which is submitted to the U.S. Congress. Once the bill is passed, USAID officials negotiate the agreements required to release USAID funds.

USAID implementing teams monitor the progress of USAID-funded activities, conduct site visits, and carry out evaluations and audits to ensure that activities are being run as planned.

Contact Information

Director of USAID Mission Vietnam

15/F Tung Shing Building 2 Ngo Quyen Street Hanoi, Vietnam Tel: (84-4) 3935-1260 Fax: (84-4) 3935-1265 Email: UsaidVietnam@usaid.gov

U.S. Center for Disease Control and Prevention (CDC)

Website: http://www.cdc.gov/globalaids/Global-HIV-AIDS-at-CDC/countries/Vietnam/

The CDC Vietnam office was established in 1998. The CDC focuses its efforts on high prevalence provinces and working in partnership with the GVN to support targeted programming for most-at-risk populations.⁹⁰

The CDC supports Vietnam in developing sustainable infrastructures to accurately and efficiently diagnose, stage, and monitor HIV treatment, these activities include: evaluation of rapid HIV testing technologies for same day results, developing a CD4 testing network, expanded viral load testing capacity, and HIV drug resistance monitoring. The center supports strategic planning and the creation of national testing guidelines.

The CDC builds in-country capacity to design, implement, and evaluate surveillance systems and improves broader national health information systems to collect, store, analyze, and use highquality data essential to HIV prevention, care, and treatment programs. The CDC works with Vietnamese national universities and institutes to strengthen pre- and in-service training in core public health areas related to surveillance, applied epidemiology, biostatistics, informatics, data-use, and research.

Contact Information

Country Director CDC Vietnam:

5th Floor – TungShing Bldg 2 Ngo Quyen, Hanoi Vietnam Tel: (84-4) 3935-2929 Fax: (84-4) 3935-1918

Disaster Management Organizations in Vietnam

The National Committee for Incident, Disaster Response, and Search and Rescue of the Socialist Republic of Vietnam (VINASARCOM) is responsible for the conduct of Search and Rescue (SAR) operations. The Government established VINASARCOM to include the following members:

- President of VINASARCOM (by the Deputy Prime Minister)
- Standing Deputy President (by Vice Minister of Defense) (now mandated to Deputy Chief of General Staff of Ministry of National Defense (MND)

- Standing member and Chief of VINASARCOM office (by Director General of Department for SAR/ MND)
- Other members (by Vice Ministers of relevant ministries and branches)
- Government assigns MND as a standing agency of VINASARCOM
- To help the Government in guiding and directing ministries and branches to elaborate and implement the strategy, long-term and annual plans for Disaster Management and SAR
- To direct and coordinate forces and assorted means of the ministries, branches and localities for prompt search and rescue activities nation-wide
- To direct ministries and branches to organize training courses, exercises for search and rescue, disaster response
- To preside, coordinate with relevant agencies in the implementation of regional and international agreements and commitments on SAR

Ministry of Agriculture and Rural Development (MARD) is the leading agency for the CCFSC and key body responsible for natural disaster prevention and control. The Minister of MARD is the Chairman of the CCFSC. The Decision No. 26/2008/QD-BNN of the Ministry of Agriculture and Rural Development dated 28 January 2008, defining the functions, tasks, powers and organizational structure of the Department for Dyke Management and Flood and Storm Prevention and Control, an agency specifically responsible with the management of flood, storm and dyke protection activities.

The Directorate of Water Resources is the technical agency and resident body for disaster risk management (mostly water-related disasters: flood, flash flood, typhoon, storm, tsunamis and earthquakes)

The Department of Dyke Management and Flood and Storm Control are the technical agency in charge of DRM. The Department Director serves as the Director of the CCFSC Standing Office. This Department plays a key role in water-related disasters and dyke management. It participates in policy and decision making processes relating to dyke management and flood and storm prevention and response, takes responsibility for control, inspection and management of the implementation of national strategies and response activities, participates in international cooperation within its field of responsibility and guides the participation of NGO's in the process of legislative improvement.

The Disaster Management Center (DMC) is another technical agency in charge of DRM and is especially assigned to implement the CBDRM Program in the whole country. The DMC also undertakes policy development and provides strategic planning advice and support.

MND is a member of the CCFSC and participates in disaster prevention and response planning. It is responsible for the use of military forces and assets for joint search, rescue and evacuation of those affected, if needed.

Ministry of Planning and Investment (MPI) is a member of the CCFSC and the leading agency for program planning and resource (fund) mobilization and official development assistance (ODA) allocation for DRM.

The Department of Agricultural Economy is assigned by the MPI Minister to be in charge of policy formulation and management of fund and projects on DRM (mostly flood and storm controls: dyke, irrigation, rural development).

The Department of Foreign Economic Relations is assigned to manage ODA projects on DRM.

Ministry of Finance (MoF) is a member of the CCFSC and the leading agency for finance management, budget allocation and risk financing (trust fund, risk insurance) for DRM.

The Department of Public Finance is assigned by the MoF Minister to be in charge of policy formulation and management of fund and projects on DRM (mostly flood and storm controls: dyke, irrigation, rural development).

Ministry of Natural Resources and Environment Finance (MoNRE) is a member of the CCFSC, and is the leading agency for environment protection, eco-system protection, early warning, land management and hydrometeorology.

The Department of Hydro-Meteorological and Climate Change is in charge of weather forecasting, hydrological information, etc.

The National Hydro-meteorology under the MoNRE is the technical agency in charge of weather forecast, hydrological information, etc.

Ministry of Fisheries is a member of the CCFSC, and is responsible for disaster prevention and control on coastal areas, at sea and in the fishery sector.

Ministry of Transport is a member of the

CCFSC, ensuring and facilitating the smooth transport flow in disaster situations, transport means and road networks, and mobilization of the same in case of disaster.

Ministry of Labor, War Invalids and Social Affairs is a member of the CCFSC, and follows up on the situation of loss after a disaster in order to propose remedial measures to the government. They also promulgate and ensure the implementation of policies on social aid.

Ministry of Foreign Affairs (MOFA) is a member of the CCFSC, and is responsible for appealing for assistance of international relief or other countries for coordination, with the permission of the Prime Minister, in the case of disaster or serious incidents that have an impact over national territory.

Ministry of Construction is a member of the CCFSC, and guides construction planning and inspection, and ensures the security of construction sites in disaster situations.

Ministry of Health is a member of the CCFSC, and is responsible for the stocking of medical equipment and medicines for emergency situations. Also, they are responsible for hygiene promotion activities and control of diseases stemming from the incidence of disaster, and organization of specialized training for medical teams working during emergencies and post-disasters.

Ministry of Industry is a member of the CCFSC and ensures the protection of mineral extraction areas, water reserve lakes and catchments, electricity networks and national industrial zones.

Ministry of Education and Training (MoET) is a member of the CCFSC and the leading agency for integration disaster risk management education into schools. The MoET also guides school construction planning to adapt to local environments in order to mitigate any occurrence of disaster.

The Department of Students Affairs is assigned by the MoET Minister to be in charge of leading efforts to integrate disaster risk management education into schools. This Department cooperates with other technical departments of MoET to develop curriculum, and conduct training for teachers and students.

Ministry of Information and Communications (MoIC) is a member of the CCFSC and is in charge of public awareness raising, communications and information dissemination. It plays a more technical role in communications than the IEC or BCC. **The Department of Telecommunications** is assigned by the MoIC Minister to be in charge of DRM technical communication issues.

Ministry of Public Security ensures security and order in disaster situations and participates in search, rescue and evacuation to those affected.

Ministry of Trade coordinates with local authorities to supply goods and services to people in disaster areas.

Vietnam Red Cross (VNRC) is a member of the CCFSC and is responsible for community mobilization, relief distribution, first aid, and capacity building for communities on disaster risk management. VNRC is organized in four levels from central to local levels, with nearly 17 thousand Red Cross units; 100% of the provincial/city, district, 98% of communes, 72% of schools, and 54% businesses have and Red Cross unit.⁹¹

The Department of Social Work and Disaster Management is assigned by the Chairman of VNRC to be in charge of DRM technical issues.

International Agencies

Key Humanitarian Assistance and Disaster Relief Organizations in Vietnam:

When large-scale disasters strike, Vietnam receives assistance from their neighbors and from the international humanitarian community. However, it is important to note that there is no unique national focal point in charge for international cooperation or coordination of assistance from foreign organizations for disaster in general. The following lists some key UN agencies present in Vietnam:

United Nations Food and Agriculture Organization (FAO) Website: http://www.fao.org.vn/

FAO Vietnam strives for inclusive growth in Vietnam where resilient food and agriculture approaches become competitive and contribute to an economically viable and an environmentally sustainable society. FAO contributes to food security and nutrition, poverty alleviation, sustainable and alternative livelihoods, quality and quantity of livestock production, climate change mitigation and adaptation, and environmental protection.

FAO has joined with the Vietnamese Government to develop and implement strategies and policies that will improve coping capacities in order to lessen the adverse impacts of disasters. Currently, FAO is assisting MARD and the CCFSC in the northern mountainous region to strengthen technical and institutional capacity building for preparedness and mitigation through disaster risk analysis, better early warning systems and climate change adaptation with a sustainable approach.

UNAIDS in Vietnam

Website: http://www.unaids.org/en/ regionscountries/countries/vietnam

The Joint United Nations Program on HIV/ AIDS (UNAIDS) brings together the efforts and resources of the UN system organizations to the global AIDS response. The Theme Group, involving cosponsors in Vietnam and other UN organizations, includes: United Nations High Commissioner for Refugees, United Nations Children's Fund (UNICEF), UNDP, United Nations Populations Fund, UNODC, International Labor Organization (ILO), UNESCO, WHO, World Bank, and International Organization for Migration (IOM) and UNV.

UNAIDS supports development, implementation and scale-up of comprehensive AIDS strategies. In Vietnam, UNAIDS works to support the response of the Government and civil society to the AIDS epidemic. UNAIDS facilitates coordination of AIDS-related activities undertaken by the UN system, and other international agencies, including bilateral donor agencies, international NGOs and others.

Specific areas of work include promoting and assisting:

- Leadership and advocacy for effective action on the epidemic including a rights-based approach;
- Strategic information and support for coordination efforts for the response to AIDS;
- Tracking, documenting, monitoring and evaluating of the epidemic and the response;
- Engaging other stakeholders in HIV, including mass organizations, NGOs, people living with HIV, and private/business sectors; and mobilization of technical and financial resources to support an effective response.

The UNAIDS Country Office provides strategic support to UN agencies, donor agencies, Government and other national partners in this work. UNAIDS works mostly at the central level, but also supports provincial AIDS centers in their work. UNAIDS office is located in Hanoi and also has two staff working in Ho Chi Minh City supporting coordination.

United Nations Children's Fund (UNICEF) Vietnam

Website: http://www.unicef.org/vietnam/

UNICEF, the UN Children's Fund, is on the ground in over 150 countries and territories to help children survive and thrive, from early childhood through adolescence. UNICEF began its nationwide program of assistance in Vietnam in 1975 and has since then been working to improve the well-being of all Vietnamese children across the country.

Contact Information:

Hanoi Office:

The Green One UN House 304 Kim Ma, Ba Dinh District Hanoi, Vietnam Tel: (84 4) 3.850.0100 Fax: (84 4) 3.726.5520 E-mail: Hanoi.registry@unicef.org

United Nations Development Program (UNDP) Website: www.vn.undp.org

For over 15 years, the UNDP has been working closely with the Government, local communities and international partners to help prepare and respond to disasters, and bridge the gap between emergency relief and long-term development. UNDP offer its global network of experience and expertise to help break the cycle of poverty and natural disasters. They have provided technical support and coordination, and now it supports Government planning and management of natural disaster risks.

UNDP has helped the CCFSC to establish the Disaster Management Unit. This Unit has improved disaster mitigation and management of information throughout Vietnam through the use of information and communication technologies. The Unit has also helped prepare a Second National Strategy and Action Plan to mitigate and manage disasters up to 2020.

Contact Information:

UNDP Vietnam Main Contacts 25-29 Phan Boi Chau Street. Hanoi – Vietnam Tel: (84 4) 3942 1495 Fax: (84 4) 3942 2267 Email: registry.vn@undp.org

United Nations Office on Drugs and Crime (UNODC)

Website: http://www.unodc.org/ eastasiaandpacific/en/vietnam/index.html

The UNODC is the custodian of international legal instruments in the areas of drugs, transnational organized crime, corruption and terrorism. The Office is also the guardian of a considerable body of internationally recognized principles in crime prevention and criminal justice, encompassing such issues as juvenile justice, the treatment of offenders, international cooperation, good governance, victim protection, and violence against women. UNODC also helps countries to reform their criminal justice systems.

UNODC's current operational targets include enhancing the drug interdiction and investigation capacity of law enforcement and judiciary system, reducing drug demand through promoting preventive education and improved treatment services, and increasing awareness and knowledge about HIV/AIDS transmission among vulnerable populations, especially injection drug users.

To prevent, investigate and prosecute cases of trafficking in human beings in Vietnam, UNODC is assisting in the capacity building of the law enforcement and judiciary. By providing technical assistance to treatment and rehabilitation centers, UNODC is improving the effectiveness of drug abuse treatment and reducing the adverse health and social consequences of drug abuse. To reduce drug use, especially among young people in Vietnam, UNODC is working with mass media on drug prevention reporting and enhancing the capacity of local communities to implement drug prevention activities and vocational training for high-risk youth.

UNODC's current projects have activities in a number of provinces throughout Vietnam. To reach its full potential and to enhance the capacity local partners, UNODC is working together with the ministries and central institutions to implement its projects. With its partners, who include government institutions, NGOs and other UN agencies, UNODC operates both at policy level and as well as at community level.

United Nations Volunteers in Vietnam (UNV) Website: http://www.unv.org/en/what-we-do/ countries-and-territories/viet-nam.html

The United Nations Volunteers program

is the UN organization that supports human development globally by promoting volunteerism and mobilizing volunteers. UNV is administered by the UNDP and operates amidst growing recognition that volunteerism makes important contributions, economically and socially, to more cohesive societies by building trust and reciprocity among citizens.

The UNV has been working in Vietnam since 1990 to increase the involvement of UN Volunteers and volunteers in general in a wide range of development activities that contribute to achievement of the MDGs.

United Nations Human Settlements Program (UN-HABITAT)

Website: http://unhabitat.org/vietnam/

The UN-HABITAT, established in 1978 is the leading agency within the UN system for coordinating activities in the field of housing and urban development. It is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.

UN-HABITAT's strategic vision is anchored in a four-pillar strategy aimed at attaining the goal for Cities without Slums. This strategy consists of advocacy of global norms, analysis of information, field-testing of solutions and financing. These fall under the four core functions assigned to the agency by world governments – monitoring and research, policy development, capacity building and financing for housing and urban development.

In Vietnam, UN-HABITAT has focused its policy and technical advice activities on issues related to urban planning and management. Building on support provided to Vietnam since 1999, UN-HABITAT is currently assisting with the preparation of City Development Strategies for Thanh Hoa province/city and Da Nang City. It has also supported the Association of Cities of Vietnam to localize the MDGs for Vietnamese cities by assessing the current status of the achievement of MDGs and Vietnam Development Goals in selected cities.

Under the Water for Asian Cities Program and in collaboration with the ADB and other governments in Asia, UN-HABITAT has initiated the "Mekong Region Water and Sanitation Program for Secondary Towns" in which Vietnam has been selected as a pilot implementing country.

In 2007, a Habitat Program Manager (HPM) was appointed for Vietnam. The HPM is working closely with a wide variety of local, national and

international partners to implement the Habitat Agenda in Vietnam.

United Nations World Health Organization (WHO)

Website: http://www2.wpro.who.int/vietnam

The WHO has been working side-by-side with the Government and development partners in Vietnam for more than 50 years and has played a critical role in disease control and prevention. WHO's main office is located in Hanoi, Vietnam's capital, where they have a team of technical, professional, specialist and administrative staff.

The Organization has been at the forefront of numerous public health efforts, assisting the Government in the elimination of poliomyelitis and neonatal tetanus, devising strategies to combat public health threats and setting standards across a range of public health issues. Today, WHO's close partnership the Vietnamese Government remains stronger than ever – and WHO continues to formulate and implement health programs and activities to bring about better health and a better quality of life for everyone in Vietnam - particularly those most at risk. The WHO is helping Vietnam address its health challenges by providing expertise, developing appropriate systems and tools and advocating policy change.

Contact Information:

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Laws, Policies, and Plans on Disaster Management

The law on natural disaster prevention and control (the Law) was passed in June 2013 and took effect on May 1, 2014. The 47-article Law provides for disaster risk reduction, climate change adaptation and mitigation measures, from national to local and community levels. The law outlines natural disaster prevention and control activities, including a national strategy and plans, and stipulations aimed at the integration of disaster prevention into national and local socio-economic development plans. It applies to Vietnamese agencies, organizations, households and individuals; foreign organizations and individuals and international organizations that are residing or operating in natural disaster prevention and control in Vietnam. 92

The law assigns roles and responsibilities among ministries and other key actors in preventing and responding to disasters, including the participation of international stakeholders. It designates the MARD as the provider of programs, of awareness raising and communitybased natural disaster management, and puts a special emphasis on vulnerable groups. The law also provides for incentive for the provision of insurance against natural disaster risks.

The National Strategy for Natural Disaster Prevention, Response and Mitigation was approved by the Prime Minister in 2007 and represents a milestone in Vietnam's disaster prevention, response and mitigation and sustainable development on the basis of traditional experience and achievements as well as the world's lessons in disaster control for increasingly sustainable in the context of natural disasters. The National Strategy promulgates tasks, solutions and plans for implementation, based on which of the provinces, cities and ministries develop their strategic action plans.93 Although not a policy document, the National Strategy for natural Disaster Prevention, Response and Mitigation to 2020 as Vietnam's de facto national plan. The Strategy has five regional plans within Vietnam that are specific to hazard mitigation such as seawalls and dykes.⁹⁴

The Vietnam Review of current and planned adaptation action (2011) provides an inventory of country-level adaptation activities and a summary of key adaptation priorities, based on documents such as the UN framework Convention on Climate Change's national Adaptation Programs of Action and National Communications. It also identifies gaps and opportunities for scaling up and enhancing collaboration. ⁹⁵

The national Strategies on Climate Change (2011) include objectives to ensure food, energy, and water security as well as alleviate poverty and improve public health. It also aims develop a low carbon economy and green growth in achieving sustainable development.

In recent years, Vietnam has passed a number of important legal documents, strategies, and plans addressing DRR and CCA, including:

• The National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020 (2007) and accompanying Action Plan National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020

- The National Target Program to Respond to Climate Change (2007) [NTP-RCC]
- Decision 1002/2009/QD-TTg on Approving the Plan for Community awareness raising and Community-based Disaster Risk Management (2009)
- The National Strategy on Climate Change (2011)
- Law on Natural Disaster Prevention and Control (2013)
- Decision 46/2014/QDD-TTg to regulate the forecast, warning and information transmission of disasters
- Decision 44/2014/QDD-TTg to regulate the level of disaster risk

Additionally, Vietnam is playing a key role in the development of the ASEAN Joint Disaster Response Plan. The goal of this plan is to describe what the ASEAN response would be if there is a large scale disaster in the region and how ASEAN member states, the military, and the private sector will provide assistance to fill identified gaps. Vietnam will be part of this as a potential assisting and recipient country. ⁹⁶

Efforts are now underway to implement these approved legal documents mentioned above. All 63 provinces have developed action plans to implement the National DRM Strategy as well as Provincial Committees for Climate Change. Most ministries and sectors represented in the CCFSC have developed action plans for the mainstreaming of DRR in their sectors. DRM action plans are already being implemented in many the provinces and sectors (e.g. dyke construction, relocation, embankments, training, awareness-raising, risk mapping, etc.)⁹⁷

Education and Training

Provincial agencies and communities now have the capability to plan for and respond to disasters. Thirty communities have implemented structural measures, including multi-purpose evacuation centers and drainage canals; as well as non-structural measures, such as Safer Community Plans and evacuation drills. ⁹⁸

The Flood and Storm Control sector, VNRC, and other community development projects work to raise awareness on disaster preparedness and response. Public education campaigns are organized on Vietnam Disaster Day and International Disaster Day. The majority of public awareness campaigns focus on flooding hazards. Multiple campaigns are conducted throughout the year utilizing TV, radio, cable, print, and internet. Vietnam T.V. (VTV) is creating a channel specifically for broadcasting disaster updates, information, and education. Some provinces have disaster information websites to share hazard and disaster information. Most communities have loudspeaker systems. Remote villages utilize a messenger system to distribute warning messages.⁹⁹

The American Red Cross has been working with the VNRC for several years to help mitigate disaster risks and to help communities become better prepared for when disasters strike. Their most recent initiative focuses on school and community-based disaster preparedness education programs. This includes training for first responders as well as awareness-raising activities and training for teachers, students and other members of the community. Additional activities include the development of community disaster plans, and the establishment of caches of equipment for community emergency response teams. Through these activities, communities in Vietnam can become more resilient and will be able to more easily respond when disasters occur in the future. This project, which began in late 2010, aims to benefit nearly 140,000 people.¹⁰⁰

The ASEAN Coordinating Center for Humanitarian Assistance on Disaster Management (AHA Center) has trained eight Emergency Response and Assessment Team members from Vietnam. Additionally, four Vietnam representatives are graduates of the AHA Center Executive Program.¹⁰¹

Disaster Management Communications

Early Warning Systems

At the central level the CCFSC and VINASARCOM coordinate flood warning, response and recovery activities. At the regional level two regional Flood and Storm Control Centers in Da Nang and Ho Chi Minh City support the MARD Standing Office of the CCFSC to coordinate directives and information flow between central and provincial levels. At the provincial level, the CFSC and VINASARCOM member agencies are represented under a single combined Provincial Committee for flood and Storm Control and Search and Rescue (chaired by the Provincial People's Committee); this is repeated at district and commune levels.¹⁰²

Hazard monitoring and forecasting for flood and storms is provided by the National Center for Hydro-meteorological Forecasting (NCHMF), which passes information down through this system. The NCHMF transmits forecasts to stakeholder organizations on a routine basis, as well as during emergencies. NHMS regional and provincial centers also distribute warning information and provide more detailed forecast information to NHMS, NCHMF, as well as the Provincial People's Committees, for the provinces they oversee. When a flood/storm emergency is declared, usually at the central level by the CCFSC, an official telegram declaring an emergency triggers all subsequent actions. Generally, the flow of hazard warning information is top-down. Stakeholders at all levels of government are kept apprised of developing natural hazard conditions through receipt of periodic updates from NHMS/ NCHMF in Hanoi and its regional centers. Based on these updates, decision makers develop and convey a series of recommended actions, in accordance with their roles and responsibilities.

The current Early Warning System (EWS) includes two channels:

1. VTV and Vietnam Radio (VoV) are active and have recently increased frequency of news and coverage. These are effective channels to disseminate forecasting and early warning to the public audience. More recently, VTC14 has been inaugurated, which is specifically for disaster related information.

The CCFSC system exits from national (central) to commune level and aims to bring timely warning messages to the authorities and communities. However, the EWS does not always work effectively in providing warning messages to the whole communities, especially the remote areas of the community. Loudspeaker systems exist in many communes yet basically cover the central administration zone only, and in some cases messengers still can be mobilized to warn the people at the lowest level but are not trained to provide localized warning messages. These warning systems mainly focus on television, radio and loudspeakers, which are not always accessible by different vulnerable groups (e.g.; those living with disabilities, or children).¹⁰³

There has been a considerable amount of upgrading on early warning systems. Early Warning systems are hazard specific and not comprehensive. Vietnam has asked donors to upgrade the entire country. The difficulty with the current EWS is the inability for the information to be disseminated to the community level. Therefore, the process of disseminating hazard warnings and response orders from the provincial level to districts and communities still mostly relies on official administration line (hard copy), telephone and email. ¹⁰⁴

Significant work still needs to be done to empower provincial land authorities and to integrate provincial level authorities and to integrate provincial level risk (especially flood risk) in system. The Pacific Disaster Center (PDC) and USAID/OFDA has been working on flood Modeling and Early Warning Capacity Development in disaster risk management.¹⁰⁵ To strengthen Vietnam's capacity for flood monitoring and warning, PDC developed a webbased early warning decision support system for use by disaster managers in the most vulnerable provinces. The system, called VinAWARE, is a customized version of PDC's DisasterAWARE. It integrates map data, impact Models, rain- and stream-gauge measurements, and meteorological forecasts to promote near real-time situational awareness and provide warnings based on criteria established by the Government of Vietnam. The interface is in Vietnamese, along with most of the information resources and data products. ¹⁰⁶

In Vietnam, government responsibilities for early warning and the declaration of disaster are split between many different committees, ministries and departments. How Vietnam responds also depends on the type of disaster (flood, storm, fire, etc.). Vietnam's strategy is in comparison to the widely used multi-hazard approach, where response procedures function for any kind of disaster regardless of the scenario or magnitude. The severity of a disaster also determines who participates in response. The CCFSC will be chaired by the Minister of MARD or the Deputy Prime Minister/Prime Minister, but its other core members, the NCSR, Ministry of Transportation, Voice of Vietnam, Ministry of Health, and others participate based on the scale and requirements of the event.

EWS systems function effectively for some specific hazards, such as slow onset river floods and typhoons.¹⁰⁷ However, the capacity to produce early warning signals for rapid onset disasters (flash flood, earthquake and tsunamis) and forest fire is still limited.

In the past, significant attention and investment was made on EWS, although these have focused mainly on flood and storm hazards. Recently, some pilot projects have been

implemented to monitor and warn of landslide and flash flood hazards in some mountainous provinces; EWS was installed but these were not too effective and did not function well. After the 2004 tsunami in South and Southeast Asia, more attention and investment has been placed on the monitoring and EWS for these hazards. The Government has also committed to equip 30 tsunami early warning stations by 2015, 8 of which have been completed to date. Figure 13 shows the delivery of Vietnam's Delivery of Meteorological and Hydrological Forecasts and Warnings.¹⁰⁸

National, offshore weather gauging stations (32 stations along the coastline operated by the Coastal Marine Communications Company) provide warning messages to ships operating in the sea. The GNV has a policy to subsidize the subscription fee for local fishers (VND 4 million/boat) for those that have integrated communications. The Ministry of Information and Communications (MoIC) has developed a Law on Radio Frequency requiring that all fishing boats have integrated communications. A MoIC Project from 2009-2015 is studying, piloting and implementing mobile stations for sea/coastal search and rescue nationwide. The MoIC have developed a map for search and rescue at sea for whole country. Meanwhile the Coastal Communications Company has built 32 stations along the coast. The MoIC project links up with these stations to provide affordable and effective warning systems for fishermen. (For example, ten percent of the 2,500 fishing boats in Ninh Thuan have integrated communications up to 500km, the remainder fishermen near shore

and communications can be effectively carried out using mobile phones, short wave radio, etc. and the province has built three coastal stations that communicate with 90% of boats. The EWS have developed further due to improved cell phone and internet coverage.

The communications system has developed rapidly and provides communication infrastructure for the transmission of warning signals to the most vulnerable groups such as fishermen, ethnic people living in remote mountainous areas and poor people with weak coping capacity. The Decision 986/2010/QD-TTg aimed to modernize forecasting technology and strengthen the network of hydro-meteorological stations. Work is on-going to provide timely, concise information using digital technology for rainfall and floods, with considerable ODA support. SMS warning has been tested as a means to warn large numbers of people in some typhoon response operations.¹⁰⁹

Responsible Agencies for Flood And Storm Warning

National Hydro-meteorological Center: Establishes regular observations and immediately identifies weather and hydrological status, informs local agencies and authorities on storms and tropical depressions on the Eastern Sea (the South China Sea) as well as floods on the major river system; sends bulletins on the storms, tropical depressions and floods to the concerned organizations according to the regulated procedures.

Guides and supervises the Regional Hydro-

meteorological stations, the provincial Hydro-meteorological forecasting centers and other hydro-meteorological agencies to timely provide information on the storms, tropical depressions and floods to the provincial People's Committees and the Committees for Flood and Storm Control at all levels, as well as to the national and local radios and televisions, and the national and local daily newspapers.

CCFSC: Receives from the National Hydro-meteorological Center the bulletins on the storms, tropical depressions and floods. On the basis of the latest bulletins, CCFSC makes decisions



Figure 13: Delivery of Meteorological and Hydrological Forecasts and Warnings

on appropriate measures to guide and manage its functions and duties; provides new information on the storms, tropical depressions and floods so that the National Hydro-meteorological Center can update information on the status of the storms, tropical depressions and floods, as well as review and evaluate the forecasting efforts.

Voice of Vietnam (national broadcasting radio or VoV): When receiving bulletins on distant or nearby storms, tropical depressions or floods, the Voice of Vietnam will broadcast these bulletins at every two hours (i.e. at the beginning of every broadcasting program), and repeat them during the whole day on all of its channels until they are replaced by the more updated official news. When receiving bulletins on emergency typhoons, tropical depressions near the sea shorelines, fast floods, or official notes from the CCFSC, the Voice of Vietnam will immediately broadcast the bulletins or the official notes twice, and repeat them after every hour during the whole day on all of its channels, until the information is replaced by the more updated official news or until the CCFSC or the National Hydro-meteorological Center requests to change the broadcasting time.

Television of Vietnam (national television or VTV): When receiving bulletins on distant or nearby storms, tropical depressions or floods, the Television of Vietnam will broadcast immediately these bulletins under the latest news programs on all of its channels; When receiving bulletins on emergency typhoons, tropical depressions near the sea shorelines, fast floods, or official notes from the CCFSC, the Television of Vietnam will immediately broadcast the bulletins or the official notes, and repeat them after every two hours during the whole day on all of its channels, until the information is replaced by the more updated official news or until the CCFSC or the National Hydro-meteorological Center requests to change the broadcasting time.

National and local daily newspapers: When receiving bulletins or official notes from the Committees of Flood and Storm Control at all levels, the national and local daily newspapers will immediately broadcast the news.

Ministry of Information and Communications: Monitors closely and, when necessary, gives the top priority and coordinates with national news agencies (including the agencies under the Ministry of Information and Communications, and those under other ministries) to collect, receive and transmit information on typhoons, tropical depressions and floods from the National Hydro-meteorological Center. The Ministry of Information and Communications will also disseminate instructions of the CCFSC and provincial CFSCs to all levels, local agencies and authorities, and all the ships offshore and the entire community, so as to have plans for disaster preparedness, responses and mitigation.

Provincial People's Committees and CFSCs: Receive information on the storms, tropical depressions and floods that are provided by the regional hydro-meteorological stations, the provincial forecasting stations, and the regional hydro-meteorological agencies, as well as receive warnings and instructions of the CCFSC. Based on the specific contents of these warnings, instructions and information, the authorities in provinces and cities will expeditiously inform the local agencies, socio-economic organizations and local people on the status of the storms, tropical depressions and floods, as well as instructions for flood and storm control. They will also give guidance to provincial and local broadcasting radios and televisions to broadcast bulletins on the storms, tropical depressions and floods, as well as instructions from the CCFSC to all the levels in a timely and precise manner.

Central Ministries and agencies: Upon the receipt of information on storms, tropical depressions and floods that are provided by the National Hydro-meteorological Center, the ministries and agencies shall: transfer the information to their lower level agencies and units that are located in vulnerable areas so that they can prepare and implement preventive measures for mitigating the disaster consequences; give guidance, supervise and review the efforts made by their subsidiary agencies and units to inform in a timely manner the ships offshore, managers and operators of irrigation schemes, warehouses, ports, etc. on the status of the storms, tropical depressions and floods so that they can prepare and implement preventive measures for mitigating the disaster consequences; provide all the necessary support relating to information to the Ministry of Information and Communications and concerned agencies, and when necessary, authorize all the information agencies nationwide to act for the purpose of flood and storm warning.

Ministry of Transport, MARD: Upon the receipt of information on the storms, tropical depressions and floods, these Ministries shall organize and install signal posts at harbors

and ports, on islands and at dike inspection stations, as well as give guidance and inspect the installation of signboards and signal lamps in those places, on the ships offshore or on the rivers. They are also to install lighthouses and necessary equipment to transmit signals for warning on storms and tropical depressions and closely coordinate with different levels of authorities to transmit warnings on storms or tropical depressions from all channels of coastal information stations to the ships offshore.

Military Role in Disaster Relief

The government established VINASARCOM to be responsible for the conduct of SAR operations. VINASARCOM helps the government in guiding and directing ministries and branches to elaborate and implement the disaster management strategy, long-term and annual plans for disaster management and SAR. They direct and coordinate forces and assorted means of the ministries, branches and localities for prompt search and rescue activities nationwide; direct ministries and branches to organize training courses, exercises for search and rescue, disaster response; and preside, coordinate with relevant agencies in the implementation of regional and international agreements and commitments on SAR.

The MND is the supreme command of the People's Army of Vietnam (PAVN), The Vietnam Ground People's Ground Forces, the Vietnamese People's Navy, the Vietnamese People's Air Force and Air Defense, the Vietnam Border Defense Force, and the Vietnam Coast Guard. To organize military activities and units, the territory of Vietnam is divided into seven military regions and the Capital High Command which contains the region of Hanoi.

The principle military force is the PAVN with a regular force off 450,000 soldiers and officers and a reserve force of about 5 million. The MND also manages a system of academies, universities and research institutes. The principal military academy is the Vietnam Academy of Defense, which is the only institution for training strategic officers.

Vietnam People's Public Security is the main police and security force in Vietnam. It was created in August 1945. It is part of the Ministry of Public Security, led by Minister of Public Security, Tran Dai Quang.

It is important to note that while the roles and tasks of government ministries down to local committees are well laid out, the roles and functions of Vietnam's military in natural disasters are less clear. Information available to the public about the role of Vietnam's military branches in disaster response is limited. In previous disasters, military branches have performed the following tasks:

Vietnam Army:	Rescue and Relief Operations (The Army plays a leading role in the NCSR)
Vietnam Air Force:	Dispatched planes and helicopters to rescue residents and distribute relief goods
Vietnam Navy:	Ships searched for missing fishing boats

Along with the Ministry of Transport and the Ministry of Agriculture and Rural Development, the MND organizes and installs signal posts at harbors and ports, on islands and at dike inspection stations upon receipt of information on approaching storms, tropical depressions and floods. They provide guidance and inspect the installation of signboards and signal lamps in these places, on the ships offshore or on rivers. Also, they install lighthouses and necessary equipment to transmit signals for warning on storms and tropical depressions. Figure 14 shows the structure of the MND.¹¹⁰

Foreign Military Assistance

The DOD's State Partnership Program (Oregon National Guard) created in 2012 works closely with VINASARCOM and has proposed urban SAR demonstrations, partnering with the U.S. Forest Service on an Incident Command System and HAZMAT response training.¹¹¹

International Partners

International Organizations and NGOs

The following is a list of international organizations and Non-governmental organizations:

Adventist Development and Relief Agency (ADRA)

Website: http://www.adravietnam.org/

ADRA in Vietnam is tackling rising inequality by working with the country's poorest people, particularly people with disabilities and ethnic minority communities in the mountainous region of the North. Through collaborating with local partners and building their capacity, our aim is to make lasting positive changes to marginalized groups in Vietnam.

They are a non-government organization which has been active in Vietnam for more than 20 years, implementing over 180 development and relief projects across the country in various sectors. Currently, they are working in Cao Bang, Hanoi and Tay Ninh with a focus on sustainable livelihoods, health, education, water and sanitation (WASH), climate change and disaster management.

ADRA in Vietnam works with vulnerable communities, especially focusing on ethnic minorities, women, children and people with disabilities so to help improve their opportunities and quality of life. Our programs and activities are implemented through strong partnerships with local authorities and civil society organizations, in order to develop their capacity to achieve long-term sustainable change.

The agency is part of the global Adventist Development and Relief Agency network, the humanitarian arm of the Seventh-day Adventist Church. With a presence in over 120 countries, ADRA seeks to identify and address social injustice and deprivation in developing countries.

Contact Information:

Units 221 – 224, Block E1 Trung Tu Diplomatic Compound 6 Dang Van Ngu Street, Dong Da District, Hanoi, Vietnam Tel: (84-4) 3852 5183/ 3852 9573 Fax: (84-4) 3852 5184 Email: adravietnam@hn.vnn.vn

Asian Development Bank

Website: http://www.adb.org/countries/viet-nam/ main

A long period of rapid economic growth, combined with various policies targeting the poor, has enabled Vietnam to reduce poverty dramatically. Still, the country faces many development challenges, including recent macroeconomic instability. Efforts are being made to enable ADB to support the country to achieve inclusive, sustainable, and stable socioeconomic development, and to realize Vietnam's long-term vision of becoming a modern industrialized nation by 2020.

Contact Information:

Vietnam Resident Mission Unit 701-706, Sun Red River Building 23 23 Phan Chu Trinh Street Hoan Kiem District, Hanoi, Vietnam Tel: (84-4) 3933 1374 Fax: (84-4) 3933 1373



Figure 14: Ministry of National Defense Organizational Structure.

Department of Foreign Affairs and Trade (DFAT)

Website: http://dfat.gov.au

Australia continues to help Vietnam make the most of opportunities from integration into the world economy. Their aid program is focused on building skills, saving lives, strengthening institutions and expanding infrastructure to support continued high growth that promotes opportunities for all. They also provide support for climate change mitigation and adaptation, HIV prevention as well as efforts to combat corruption and protect human rights.

Australia is working with other donors and NGOs to support Vietnam in improving community resilience to natural disasters and implementing a national CBDRM program. Our support has included a project completed by CARE Australia in mid-2011 that improved the ability of over 17,000 people in the Mekong Delta to prepare and adapt to annual flooding, storms and to improve livelihood security. Through a partnership with Oxfam, DFAT has also provided technical assistance to support Vietnam's Disaster Management Center in preparing operational guidance, a monitoring and evaluation framework and training materials.

With climate change, natural disasters are expected to become more frequent and intense. Australia is working with Vietnam to integrate disaster risk management activities and approaches to climate change adaptation.

Floods and other natural disasters can present a serious drowning risk to children. Australia supports a drowning prevention program that teaches children important survival swimming skills.

Contact Information:

GPO Box 887 Canberra, ACT 2601, Australia Tel: +61 2 6178 4000 Fax: +61 2 6178 4880

CARE Vietnam

Website: http://www.careinternational.org.uk/ where-we-work/vietnam

CARE International in Vietnam is a Non-Government Organization representing the CARE International network in Vietnam since 1989. CARE in Vietnam's Program Strategy is explicitly oriented around achieving impacts for particularly vulnerable and marginalized groups in Vietnam. To achieve this, we work with Vietnamese partners across sectors such as health services, rural livelihood development, disaster risk reduction and climate change adaptation. We recognize that women's empowerment is a critical pathway for poverty reduction and place women and girls from marginalized population groups at the heart of our programming efforts.

Contact Information:

CARE International in Vietnam Disaster Management Program 66 Xuan Dieu, Tay Ho, Hanoi Tel: (04) 3716 1930 Fax: (04) 3716 1935

CARE Vietnam 92 To Ngoc Van Street Tay Ho District, Hanoi Tel: (84-4) 3716 1930 Fax: (84-4) 3716 1935

CARE International UK 9th Floor, 89 Albert Embankment London SE1 7TP Tel: 44 (0) 20 7091 6000 Fax: 44 (0) 20 7582 0728

CARITAS- Switzerland

Website: http://www.caritas.org/worldmap/asia/ vietnam.html

Caritas Vietnam reopened in 2008 after it was closed by the Government 32 years earlier. It has since applied for membership of Caritas Internationalis. Extreme climatic events such as drought and typhoons which lead to floods have caused devastation and loss of lives in recent years. Other challenges to development include widespread poverty, damaged infrastructure through conflict, land scarcity and unemployment.

Caritas Vietnam focuses its work on emergency relief, development, social and charitable activities with the aim of promoting integral human development. Activities include:

- Providing emergency assistance to people hit by natural disasters and epidemic diseases.
- Support and care for people with HIV and AIDS.
- Working to improve overall education standards by seeking to eradicate illiteracy, providing training and sponsoring the education of poor minorities and people with learning disabilities.

- Implementing health programs for the poor. This includes awareness raising and offering medical examinations.
- Carrying out community development programs such as water purification projects and assisting in micro credit initiatives.

Caritas Vietnam relies on voluntary contributions for its work. To boost its funds, it launches a fundraising campaign every year.

Contact Information:

23/25 D2 Street, Van Thanh Bac, Ward 25, Binh Thanh District Ho Chi Minh City VietnamTel: +84 8 3512 2366 Email: ubbaxh_vn@yahoo.com

Catholic Relief Services (CRS)

Website: http://crs.org/countries/vietnam

CRS reopened an office in Hanoi in 1994 as part of a postwar normalization process between Vietnam and the U.S. Previously, in a very different context, CRS had worked to meet the social needs of people displaced during wartime in southern Vietnam. Since reopening, CRS programming has focusing on building Vietnamese capacity to respond to emergencies and natural disasters, to reduce poverty, and to foster equitable development. CRS Vietnam now works with both government and nongovernmental partners to improve the education and health care systems in Vietnam.

CRS Vietnam has supported projects in emergency relief in more than ten provinces, targeting impoverished families who are living in the most hazard-prone areas. Over the years, CRS has helped communities reconstruct key irrigation systems and public buildings, as well as provided trainings on disaster preparedness to minimize the losses to future disasters.

Contact Information:

Catholic Relief Services 228 W. Lexington St. Baltimore, Maryland 21201-3443 Tel: 877-435-7277 Email: info@crs.org

Center for International Studies and Cooperation (CECI)

Website: http://www.ceci.ca/en/where-we-work/ asia/vietnam/

CECI started operating in Vietnam in 1991. The country had just opened up to international aid with a view to furthering the integration of local communities into the market and increasing their agricultural incomes. Since that time, CECI has provided technical support and sent Canadian and Australian volunteers to support the government and NGO partners in their local development efforts.

In addition, CECI has secured funding from CIDA, USAID, the European Union, and the Asian Development Bank to support our partners' development priorities. They are now gearing our programming towards improving the livelihoods of mountain ethnic minority communities, who have benefited less from the development that has enabled the majority of Vietnamese to emerge from poverty in the last two decades.

After CECI responded to flooding in the central provinces of the Hue region in 1999, their partners asked them to continue their support for the development and implementation of community approaches to disaster mitigation. CECI has successfully introduced several innovative approaches to participatory planning for disaster risk reduction with a view to enabling the poor to better protect their health and property in the event of natural disasters.

Contact Information:

3000, Omer-Lavallée Street Montréal (Québec), Canada H1Y 3R8 Tel: (514) 875-9911 Fax: (514) 875-6469 Email: info@ceci.ca

Disaster Preparedness European Commission (DIPECHO)

Website: http://ec.europa.eu/echo/files/policies/ dipecho/presentations/vietnam.pdf

The European Commission's Humanitarian aid and Civil Protection Directorate General (ECHO) provides rapid and effective support to the victims of disasters beyond the European Union's borders. On average, approximately 16% of ECHO humanitarian relief is a response to sudden-onset natural disasters. The importance of disaster preparedness is clearly recognized in ECHO's mandate and in the European Consensus on Humanitarian Aid adopted in 2007. In 1996 ECHO launched a specific program, DIPECHO (Disaster Preparedness ECHO) dedicated to disaster preparedness. Disaster preparedness also has a central place in the 23 principles for Good Humanitarian Donorship agreed in 2003 in Stockholm by leading humanitarian donors, including ECHO.

Through it Disaster Preparedness Program DIPECHO, the ECHO aims at increasing the resilience of communities facing recurrent natural hazards, in particular floods and typhoons. Since 1998, 23 projects have been funded in Vietnam under the DIPECHO program for over \$6 million. In addition, a series of actions have been undertaken through regional projects to support national frameworks and networking. Projects have focused on coastal and delta areas, as well as more recently on remote mountainous provinces. Activities funded include the establishment of flood early warning systems, construction of small scale mitigation projects such as dykes, the improvement of organizational capacities of communities and local authorities, and the development of village disaster management plans as well as education measures in schools.

Advocacy and public awareness measures have been strongly reinforced, thanks to a joint initiative launched by DIPECHO partner agencies, to better disseminate and promote disaster risk reduction among the decisionmakers, donors and the general public.

Contact Information:

ECHO's Regional Support Office in Bangkok Tel: +66 2 255 10 35 / 36

International Federation of the Red Cross and Red Crescent Societies (IFRC)

Website: http://www.ifrc.org/en/news-andmedia/news-stories/asia-pacific/vietnam/

Disaster response continues to represent the largest portion of the International Federation work, with assistance to approximately 30 million people annually from refugees to victims of natural disasters. This section includes their emergency response units and issues relating to humanitarian policies as they strive to improve the quality of our immediate response and longterm rehabilitation work.

The sharp increase in the number of natural disasters worldwide in recent years has prompted the Federation to devote more attention to disaster preparedness activities. These aim to make National Societies and communities more aware of the risks they face, how to reduce their vulnerability, and how to cope when disaster strikes.

International Organization for Migration (IOM)

Website: http://www.iom.int.vn/

Established in 1951, IOM is the leading intergovernmental organization in the field of migration and it works closely with governmental, intergovernmental and nongovernmental partners in over 100 countries. With 120 member states and 19 states with observer status, of which Vietnam is one, IOM is dedicated to supporting both governments and migrants in promoting humanitarian and orderly migration.

IOM first began operations in Vietnam in 1987 and operates under a Memorandum of Understanding with the Ministry of Foreign Affairs. IOM's Mission in Vietnam is based in Hanoi with a sub-office in Ho Chi Minh City and has over 100 experienced staff dedicated to assisting the government and the people of Vietnam in the field of migration.

IOM's operation in Vietnam is concerned about the welfare and quality of life of Vietnamese, particularly migrant and mobile populations. The program focuses on safe migration and mobility, which includes counter trafficking, labor migration, public health and social services, and access to information, as well as assistance to local Embassies and Consulates on migration issues. Since 1987, IOM has had close working relationships with the Ministry of Foreign Affairs, Ministry of Labor Invalids, and Social Affairs, Ministry of Public Security, Ministry of Transport, and the Vietnam Women's Union.

While IOM's central-level policy activities are focused in Hanoi, IOM is primarily a decentralized, operational organization with most project activities being tailored to provinces and cities where the needs of migrant populations are most significant. Ongoing activities are being conducted in Hanoi, Ho Chi Minh City, Quang Ninh, Hai Phong and in several Mekong Delta provinces.

In addition, IOM works with its regional and global partners to assist Vietnamese migrants when they are abroad.

Contact Information:

IOM Chief of Mission in Vietnam:

IOM Mission in Hanoi Tel: (+84) 43 736 6258 Email: hanoi@iom.int

IOM Sub-Office in Ho Chi Minh City Tel: (+84) 83 822 2057 | Email: hochiminh@iom.int

Japan International Cooperation Agency (JICA) – Vietnam

Website: http://www.jica.go.jp/vietnam/english/ index.html

ODA activities of JICA and Japan Bank for International Cooperation have been merged from October 2008. Since new JICA is now able to extend three schemes of Japanese ODA: Technical Assistance, ODA Loans and part of the Grant Aid, new JICA can provide comprehensive assistance that most efficiently addresses the needs of developing countries from large scaled infrastructure construction to technical cooperation at grass root level.

The Japanese Government has been contributing support to Vietnam to become a modern industrialized country by 2020, as well as to help improve the people's living standards, building a society of justice, and enhancing the effectiveness and sustainability of the development. More information of JICA in Vietnam can be found in their brochure: http:// www.jica.go.jp/vietnam/english/office/others/ pdf/en.pdf

Contact Information:

JICA Vietnam Office 16th Floor, Daeha Business Center 360 Kim Ma Street Ba Dinh District, Hanoi Tel: (84 4) 3831 5005 -8

Maltesar International

Website: http://www.malteser-international.org/ en/home/where-we-help/asia/vietnam.html

Malteser International is the worldwide relief agency of the Sovereign Order of Malta for humanitarian aid with the status of a nongovernmental organization. The relief service has more than 50 years of experience in humanitarian relief and currently covers around 100 projects in about 20 countries in Africa, Asia and the Americas. Currently, 24 national associations and priories of the Order of Malta are members of Malteser International. Malteser International has been working in Vietnam since 1966.

Contact Information:

American Headquarters 75 Valencia Avenue Suite 702 Coral Gables, FL 33134 Phone: +1 305.448.5111 Fax: +1 305.448.5115

Oxfam International - Vietnam

Website: http://www.oxfam.org/en/development/ vietnam

In Vietnam, Oxfam is recognized as one of the leading international non-governmental organizations, especially in rural development, disaster risk reduction and humanitarian response, civil society development, ethnic minorities, and women's empowerment.

Oxfam has been working in Vietnam since 1955, when they made their first humanitarian grant. After several decades of supporting humanitarian responses, they started to focus on development work in the late 1980s. Oxfam continues to work with communities, the government, civil society organizations and other NGOs to promote equity, human development and economic well-being through social and economic change.

Their five focus areas are:

- Improve livelihoods for people living in rural areas, especially ethnic minorities and women
- Improve livelihoods for migrant workers in urban areas, especially migrant women
- Reduce vulnerability and increase adaptability to disasters and climate change
- Empower women to gain more control over their lives, increase their economic and political power, and gain more space to express their voices and claim their right
- Empower communities and civil society to take part in public policy, the social and economic development of the country, strengthened governance (rule of law) and government accountability.

Contact Information:

Oxfam Vietnam Communications Officer 22 Le Dai Hanh Hanoi, Vietnam Tel: (84-4) 3945 4362 (ext 142) Email: ntpdung@oxfam.org.uk

Pacific Disaster Center (PDC) www.pdc.org

The PDC's mission is to provide applied information research and analysis support for the development of more effective policies, institutions, programs and information products for disaster management and humanitarian

assistance communities worldwide. PDC, in collaboration with Vietnam's CCFSC, Department of Dyke Management & Flood and Storm Control, and its Disaster Management Center (DMC), has undertaken a pilot project aimed at better understanding, illustrating, and enhancing the current state of disaster management in Vietnam in terms of:

- Monitoring and observation systems and networks;
- Analysis and decision support system capabilities; and
- Warning and notification dissemination

The objectives of the first set of activities is to raise awareness of the need for coordinated disaster management in Vietnam, to clarify to stakeholders the benefits of coordinated disaster management, to validate the concept of an allhazards approach to disaster management, and to generate exemplar products to provide insight into issues ranging from disaster management to data sharing and access.

To strengthen Vietnam's capacity for flood monitoring and warning, PDC developed a webbased early warning decision support system for use by disaster managers in the most vulnerable provinces. The system, called VinAWARE, is a customized version of PDC's DisasterAWARE. It integrates map data, impact models, rain- and stream-gauge measurements, and meteorological forecasts to promote near real-time situational awareness and provide warnings based on criteria established by the Government of Vietnam. The interface is in Vietnamese, along with most of the information resources and data products. ¹¹²

Contact Information:

1305 North Holopono Street, Ste 2 Kihei, HI 96753 Tel: (808) 891-0525 Email: info@pdc.org

Peace Winds America (PWA)

Website: http://peacewindsamerica.org/ readiness/sister-cities-initiative/

The Asia Pacific is home to millions of people in cities that drive their nation's economies. Effective disaster preparedness, management, and response capabilities for these cities are critical to public safety, and to political and economic stability. PWA developed the Sister Cities Initiative in response to the pivotal role of cities in disaster preparedness and response. Using the international Sister Cities Network, this program enhances disaster management by building capacities and integrating the various emergency responders, especially the private sector.

The PWA delegation met with members of the Vietnam Disaster Management Center and the Central Committee for Flood and Storm Control in Hanoi, city officials and emergency managers from Hai Phong and Ho Chi Minh City, NGOs, private sector representatives from the Vietnam Chamber of Commerce and Industry, Japan Business Associations, American Chambers of Commerce, U.S. Embassy staff, Port Authorities and others. Peace Winds America will work collaboratively with its partners, implementers and experts to craft the next stages of this two year program.

In August 2012 Peace Winds America expanded the Sister Cities Disaster Preparedness Initiative to Vietnam. The Mayors and People's Committee Chairmen from the Sister Cities of San Francisco - Ho Chi Minh City and Seattle - Hai Phong signed agreements committing to work together in PWA's Sister Cities Disaster Preparedness Initiative. The Mayors and People's Committee Chairmen acknowledged the importance of disaster preparedness at the city level, especially in light of climate change. Through a series of disaster preparedness forums held in Vietnam and the U.S., the Sister Cities target collaborative disaster planning, disaster risk reduction, and emergency response and recovery. The Initiative brings municipal officials and disaster managers together with national authorities and ministries, businesses, NGOs, and community groups. The Initiative strengthens the ability of cities to protect people and local economies from natural disasters and climate change.

PWA is a disaster preparedness and response organization (501(c)(3)), focused on reducing the devastating impact of natural disasters in the Asia Pacific. PWA brings together governments, militaries, NGOs, and the private sector to prepare for and respond to natural disasters, with the Japan – U.S. relationship as the cornerstone of humanitarian assistance in the Asia Pacific region.

Contact Information:

2517 Eastlake Avenue East, Suite 103 Seattle, Washington 98102 Tel: 206-432-3712

Plan International-Vietnam

Website: https://plan-international.org/where-wework/asia/vietnam/

Plan International works to help marginalized children across Vietnam, especially those from ethnic minority groups in mountainous regions. They implement programs and projects involving some 226,000 households in 142 communes in Central and Northern Vietnam, including 40,000 sponsored children and their families.

Their main priorities are to reduce the malnutrition rate, to improve health care and to provide quality basic education to children. Building good relationships with government bodies at various levels since 1993, Plan International has become one of the largest non-governmental organizations working in Vietnam.

To better cope with the impact of disasters and climate change, Plan International promotes the right to protection and assistance in emergencies and builds the resilience of children, families and communities. In emergency preparedness and response as well as in recovery phase and livelihood projects such as agricultural productivity and food security, Plan International involves communities to better adapt to climate change, preserve and develop their assets, and integrate this issue into their development.

Contact Information:

Plan Vietnam 2nd floor, Hoa Binh International Towers 106 Hoang Quoc Viet, Cau Giay Hanoi, Vietnam Tel: +844 3 8220 661 Fax: +844 3 8223 004

Save the Children Vietnam

Website: http://savethechildrenvietnam. wordpress.com/gi%e1%bb%9bithi%e1%bb%87u/

In 1990, Save the Children was invited by the Vietnamese government to been working on the issue of child nutrition. In response, Save the Children developed a highly successful nutrition program, which has been replicated nationwide and in many countries around the world. Vietnam is especially vulnerable to the effects of natural disasters, which often have serious consequences on the well-being of children. Save the Children works directly with local authorities and community people in disaster-prone areas to better prepare and protect themselves in times of emergency. Through collaboration with other members of the Save the Children Alliance, our program supports communities on various aspects of disaster preparedness planning, with a special emphasis on raising awareness for child safety and protection during disaster situations.

Contact Information:

Representative Office 4th Floor Machinco Building, 444 Hoang Hoa Tham, Hanoi Tel: (84-4) 3573 5050

World Bank Vietnam

Website: http://www.worldbank.org/en/country/ vietnam

Aligned with the Government's overall strategic priorities and goals, the Bank's Country Partnership Strategy (CPS) ll supports Vietnam's three breakthrough areas of promoting human resources, improving market institutions, and advancing infrastructure development.

The CPS introduces several new principles of Bank engagement in Vietnam aimed at increasing the Bank's impact: (i) sharpening strategic focus by reducing program dispersion through consolidation and greater selectivity; (ii) improving operational efficiency through the introduction of more systemic approaches, leveraging resources by strengthening policy dialogue and analytical and advisory services (AAA), through synergies with development partners, and across the World Bank Group (WBG); and (iii) accelerating implementation for more timely results.

The CPS program will support investments and policies organized into a strategic framework of three pillars and three cross-cutting themes. The CPS supports a strengthening of Vietnam's resilience on these specific issues in the respective pillars of the framework. The challenge for the Vietnam program is to achieve results faster. During the CPS period, the Bank and Government will work to assess underlying fiduciary systems capacity and to diversify lending instruments for faster development impact. The Bank will also continue to work jointly with the MPI and other donors to address systemic ODA implementation issues and undertake analyses to learn from wellperforming provinces and sectors. At the project level, the Bank and MPI are giving priority to improving project readiness for implementation, accelerating preparation, and managing the existing portfolio proactively. A

more streamlined results framework of this CPS will serve as a management tool for the Bank's Vietnam Country Team.

Contact Information:

Country Office Contacts 8th Floor, 63 Ly Thai To, Hanoi, Vietnam Tel: +844 3934-6600 Email: vietnam@worldbank.org

1818 H Street NW, Washington, DC 20433 Tel: (202) 473-4709 Email: eastasiapacific@worldbank.org

World Vision International (Vietnam)

Website: http://www.worldvision.org.vn/ worldvision/index.php

World Vision is a Christian relief and development organization working to create lasting change in the lives of children, families and communities living in poverty. World Vision serves all people regardless of religion, race, ethnicity or gender. Founded in 1950, WV currently works in around 100 countries around the world, assisting communities with programs and projects in health, education, agriculture, micro-enterprise development, economic assistance, disability, capacity building, and emergency relief and disaster mitigation. Importantly, activities are tailored specifically to the community's needs, encouraging community participation and ownership, so they become agents of their own development. World Vision Vietnam (WVV) began working in Vietnam in 1960, providing support to orphaned children and orphanages. Over the past 15 years, WVV developed programs to provide support to homeless people, education and health for children separated from their families and orthopedic rehabilitation services. Following a break in service delivery after 1975, WVV recommenced emergency relief assistance in 1988 and opened an office in Hanoi in 1990.

Contact Information:

4th floor, HEAC Building, 14-16 Ham Long Hoam Kiem District Hanoi, Vietnam Tel: (844) 3943 9920 Fax: (844) 3943 9921

Vietnam Infrastructure

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IINFRASTRUCTURE

Infrastructure

Vietnam has aging infrastructure that was generally constructed before the 1980's. The main cities have adequate transportation infrastructure. However, a critical risk for disaster management is the dyke system. Flooding is the primary hazard in Vietnam. The dykes are easily overwhelmed during flooding and the roadways become flooded, in habiting emergency transportation and logistics. Figure 15 (photo left)¹¹³ depicts an idle boat that is ready in many flood-prone provinces like the Hau River region as a means of emergency transportation. The houses in the picture (photo right) may be on wooden stilts to prevent flooding but the infrastructure may not be built to be flood or hazard resistant and may shift or collapse at any time.

From 1996 to 2015, over 1,000 building codes were written. The Ministry of Construction oversees the process of implementation and enforcement of the building codes. Due to lack of trained personnel to conduct the inspections and budget constraints, codes are not enforced and inspections are not conducted. ¹¹⁴ Many Vietnamese families living in flood-prone areas, have to store their rice, and other essential supplies on the second floor or their homes.



Figure 15: Transportation Boats and Housing in Flood-Prone Areas of Vietnam

According to Decision No 48/2014/QD-TTg dated August 28, 2014 from the Prime Minister Nguyen Tan Dung, residents in 14 Vietnam provinces would receive funding to build flood-resistant houses in the storm-prone areas of Hanoi. The Ministry of Construction submitted statistics to the prime minister who had asked for a report on the three-year (2014-2016) project to build flood-resistant homes for poor families in central regions reporting that nearly 4,500 poor households in the storm-prone areas of the central regions have completed their flood-resistant houses. An inspection by the ministry has shown that all the qualified stormresistant houses completed have their ground floor's height exceeding the highest level of floodwaters.

Many localities have suggested to the government that they widen the project's list of beneficiaries so that more poor families could benefit. As a result, 28,132 households have been on the list, an increase of 2,315 families compared with the initial plan. The families, during the constructing of their houses, consulted the model designed by the Provinces' Department of Construction. Most of the newlybuilt houses are next to the old ones, while some are built apart but still ensure convenience to shift when floods occur.

The program, established in 2014, has mobilized total funding of more than VND447 billion (U.S. \$19.8 million), of which VND233 billion (\$10.3 million) came from the central budget, over VND12 billion (\$530,000) came from the local budget, and VND132 billion (\$5.8 million) came from a preferential loan from the Bank for Social Policy, while the other VND69 billion (\$3 million) came from other sources. The houses, which account for 17 percent of the targeted number of homes planned, also have firm foundations, frames, walls and roofs, with a minimum area of 15-square meters. Most of them cost VND30-40 million (\$1,300-1,760) to construct. Some households were provided more money to build larger houses worth VND50-60 million (\$2,200-2,640).¹¹⁵

Airports

Tan Son Nhat International Airport (SGN) is the largest and busiest airport of Vietnam, serving the city of Ho Chi Minh. Noi Bai International Airport (HAN) in Hanoi and Da Nang International Airport (DAD) in Da Nang are other important airports. Figure 16¹¹⁶shows a map of the main Airport cities in Vietnam and Table 4 shows the list with airport codes.

Seaports

The International Maritime Bureau reports the territorial and offshore waters in the South China Sea as high risk for piracy and armed robbery against ships; numerous commercial vessels have been attacked and hijacked both at anchor and while underway; hijacked vessels are often disguised and cargo diverted to ports in East Asia; crews have been murdered or cast adrift. ¹¹⁷

Land Routes

Figure 17 shows Vietnam's land transportation routes. $^{\scriptscriptstyle 118}$

Roads

Roadways: total: 195,468 km; paved: 148,338 km; unpaved: 47,130 km¹¹⁹

Railways

Rail transport is underused in Vietnam. Road transport is the primary means of transport. The railway system in Vietnam is owned and operated by the state-owned Vietnam Railways. The principal route, the single track North-South Railway running between Hanoi and Ho Chi Minh City, accounts for 1,726 kilometers (1,072 mi) of the network's total length of 2,600



Figure 16: Map of Vietnam Airport Cities

kilometers (1,600 mi).

The overall condition of railway infrastructure in Vietnam varies from poor to fair; most of the network remains in need of rehabilitation and upgrading, having received only temporary repair from damages suffered during decades of war.¹²⁰

Waterways

There are 47,130 km of waterways. ¹²¹ The Mekong delta covers about 40,000 square kilometers. It is a low level plain not more than three meters above sea level at any point and crisscrossed by a maze of canals and rivers. There is so much sediment carried by the Mekong's various branches and tributaries that the delta advances 60 to 80 meters in the sea every year. Almost ten square kilometers of the delta are under rice cultivation, making the area one of the major rice-growing regions of the world. ¹²²

IINFRASTRUCTURE

List of Airports in Vietnam					
City	Airport Code	Airport Name	City	Airport Code	Airport Name
Haiphong	НРН	Catbi Airport	Pleiku	PXU	Pleiku Airport
Cape St	CSJ	Cape St Jacques Airport	Vinh City	VII	Vinh City Airport
Jacques	Jacques		Kontum	KON	Kontum Airport
Hue	HUI	Phu Bai Airport	Phan Rang	PHA	Phan Rang Airport
Dien Bien Phu	DIN	Dien Bien Airport	Phuoclong	VSO	Phuoclong Airport
Ca Mau	CAH	Ca Mau Airport	Quanduc	HOO	Nhon Co Airport
Phu Quoc	PQC	Duong Dong Airport	Ho Chi Minh		<u>Tan Son Nhat International</u> <u>Airport</u>
Da Nang	DAD	Da Nang Airport	City	SGN	
Soc Trang	SOA	Soc Trang Airport	Tamky	тмк	Tamky Airport
Hanoi HAN	<u>Noibai International</u> <u>Airport</u>	Long Xuyen	XLO	Long Xuyen Airport	
		Son-La	SQH	Na San Airport	
Vung Tau	VTG	Vung Tau Airport	Phu-bon	HBN	Flamingo Airport
Phu Vinh	PHU	Phu Vinh Airport	Con Dao	VCS	Coong Airport
Quang Ngai	XNG	Quang Ngai Airport	Rach Gia	VKG	Rach Gia Airport
Phan Thiet	PHH	Phan Thiet Airport	Tuy Hoa	твв	Dong Tac Airport
Nha Trang	CXR	Cam Ranh International Airport	Can Tho	VCA	Can Tho Airport
Banmethuot	BMV	Phung Duc Airport	Tamky	VCL	Chulai Airport
Dalat	DLI	Lienkhang Airport	Qui Nhon	UIH	Qui Nhon Airport
Vinh Long	XVL	Vinh Long Airport			

Table 4: List of Airports and Codes in Vietnam

Communications

Vietnam's Ministry of Culture and Information oversees the country's mass media and communicates officially approved information. Vietnam has been putting considerable effort into modernizing and expanding its telecommunication system.¹²³

Telephones, main lines in use

5.56 million (2014); country comparison to the world: 28

Mobile cell phones in use:

136.1 million (2014); country comparison to the world: 10

Telephone system:

General assessment: Vietnam is putting considerable effort into modernization and expansion of its telecommunication system.

Domestic: all provincial exchanges are digitalized and connected to Hanoi, Da Nang,



Figure 17: Vietnam Transportation Map

and Ho Chi Minh City by fiber-optic cable or microwave radio relay networks; main lines have been increased, and the use of mobile telephones is growing rapidly.

International: country code - 84; a landing point for the SEA-ME-WE-3, the C2C, and Thailand-Vietnam-Hong Kong submarine cable systems. The Asia-America Gateway submarine cable system (completed in 2009) provided new access links to Asia and the U.S. Broadcast Media:

The Vietnam Government controls all broadcast media exercising oversight through the Ministry of Information and Communication (MIC); governmentcontrolled national TV provider, VTV, operates a network of nine channels with several regional broadcasting centers; programming is relayed nationwide via a network of provincial and municipal TV stations; law limits access to satellite TV but many households are able to access foreign programming via home satellite equipment; government-controlled VoV, the national radio broadcaster, broadcasts on six channels and is repeated on AM, FM, and shortwave stations throughout Vietnam. 124

Power

There is a strong need to ensure better electricity supply to all segments of the population, both to improve living standards directly and to support development of local industrial, agricultural and commercial activities for economic growth and employment. Many of those connected,

particularly in the rural areas, receive poor service because current systems are unable to meet current and projected load requirements. The medium voltage system has become a bottleneck in the power flow from the transmission system to the low voltage systems. The resultant fluctuating voltage and poor reliability cause substantial economic loss by interrupting processes and, often, by damaging consumers' appliances. Furthermore, about 1 million households, or 5 million people, still have no grid supply and either depend on poor quality individual systems or do without. ¹²⁵

Water and Sanitation

Safe and readily available water is important for public health, whether it is used for drinking, domestic use, food production or recreational purposes. Improved water supply and sanitation, and better management of water resources, can boost countries' economic growth and can contribute greatly to poverty reduction. Contaminated water and poor sanitation are linked to transmission of diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid and polio. Absent, inadequate, or inappropriately managed water and sanitation services expose individuals to preventable health risks. This is the case in health care facilities where both patients and staff are placed at additional risk of infection and disease when water, sanitation and hygiene services are lacking. 126

Travelers visiting Vietnam should be cautious about drinking non-bottled water and about using ice cubes in drinks. You may wish to drink only bottled or canned beverages or beverages that have been boiled (such as hot tea and coffee).

Poor Conditions

Twenty-five years ago, roughly two out of five people in Vietnam did not have access to improved sources of drinking water. Improved sources – mostly tap water and protected wells – were easy to find in cities, but 80% of the population lived in rural areas where tap water was non-existent and protected wells and springs were scarce.

Finding a toilet or latrine was even more difficult. Three out of five people did not have access to improved sanitation facilities that keep human excreta away from human contact and two out of five people defecated in the country's forests, fields and rivers.

"During that time water and sanitation was poor. Child mortality rates were high and outbreaks of cholera, diarrhea and typhoid were common," says Dr. Nguyen Huy Nga, Senior Advisor, Vietnam Ministry of Health. "With the MDGs, the government strengthened its political commitment and began considering access to water and sanitation as an indicator of socioeconomic development." ¹²⁸

Improving Conditions

Vietnam has met the MDG targets to reach 82% and 68% of the population with improved water and sanitation, it has surpassed them. Today, 98% of Vietnam's more than 90 million residents have access to improved drinking water sources and 78% of the population uses toilets and latrines that meet international standards.

In 2000, with support from the WHO, UNICEF, the World Bank and other international organizations, the Government of Vietnam developed the National Rural Clean Water Supply and Sanitation Strategy to 2020. The strategy set the foundation for all government agencies to work towards universal access to water and sanitation – a higher target than the MDGs.

Under the strategy, a three-phase National Target Program was implemented to measure the country's progress, and standards for drinking water quantity and quality and sanitation facilities were established.

Because piped water still only reaches ten percent of rural households and 61% of urban households, UNICEF has also been working with the Ministry of Agriculture & Rural Development to promote household water treatment and storage in communities where people don't have access to protected water sources.

Use of improved sanitation facilities in Vietnam has more than doubled – from 36% in 1990 to 78% in 2015. And open defecation, where people do not use any form of latrine or toilet, has been reduced from 39% to 1% over the same time period. However, the Ministry of Health remains highly concerned about the estimated one in ten people in rural areas who continue to use primitive hanging latrines which release excreta directly into ponds and rivers, thus contaminating the environment and water resources.

UNICEF has worked to build capacity in the country's national and provincial governments to implement a community-led sanitation approach that motivates communities to improve their sanitation practices and keep their environment clean. Communities decide on the type of sanitation facilities they want, are taught how to construct them and can obtain small construction loans from the government.¹²⁹



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U.S. NAVAL HOSPITAL SHIP

1 23.

Health System

Overview

Vietnam has made progress towards improving the health status of the population, with progress that equals or surpassed that of many neighboring countries. Life expectancy is 72.8 years (70.2 for men and 75.6 for women), a level that is many times higher than that in similar countries with similar levels of GDP. However, Vietnam's health care system still faces many difficulties and challenges.

Structure

Figure 18 represents Pacific Command's support of the Vietnam Health System including Lines of Effort (LOE) in specific functional areas.

Health Care System

Vietnam is burdened with non-communicable diseases (cardiovascular diseases, cancer, diabetes, etc.), infectious diseases, an aging population, inadequate capacity of the health system and problems of inequities in access to health and health care.

Chronic diseases are highly prevalent in rural populations and households are more likely to face catastrophic health expenditures and impoverishment for chronic noncommunicable diseases. Smoking is common in Vietnam partly due to the population's poor knowledge of its health consequences. Alcohol misuse is also a rising problem, especially among men and is presenting a serious public health problem among young and educated individuals.

There are still large health disparities across regions and between demographic and socioeconomic groups. This is especially the case with marginalization and distress among Vietnamese mothers whose children have disabilities. There are over eight million people belonging to ethnic minorities, the majority of which live in remote and mountainous areas. These population are relatively more disadvantaged in terms of socioeconomic and health status. The number of health workers has increased substantially over the past ten years, but there are still severe shortages in remote and disadvantaged areas. ¹³⁰

Challenges in the Healthcare System

Vietnam is an emerging economy that is facing a double burden of communicable and non-communicable diseases. However the impact of non-communicable diseases is rising rapidly, while for communicable diseases the impact is decreasing. Non-communicable diseases cause 71% of the total burden of disease in Vietnam, including 60.1% of all deaths. Twenty years ago, non-communicable diseases caused 41.8% of deaths. ¹³¹

Vietnam also faces other challenges. Medical facilities in Vietnam frequently do not meet international standards and may lack medicines and supplies. Medical personnel in Vietnam, particularly outside Hanoi and Ho Chi Minh City, generally speak little or no English. Doctors and hospitals expect immediate cash payment for health services. International health clinics in Hanoi and Ho Chi Minh City can provide acceptable care for minor illnesses and injuries, but more serious problems often require medical evacuation to Bangkok or Singapore.

Communicable Diseases

Dengue: The mosquito-borne disease is becoming increasingly problematic in Southeast Asia. Several hundred thousand people are hospitalized with Dengue hemorrhagic fever each year, but the fatality rate is less than 0.3%. As there is no vaccine available, it can only be prevented by avoiding mosquito bites. As of 16 August 2015, there were 24,968 cases of Dengue, including 12 deaths reported in Vietnam for 2015. Compared to the same reporting period in 2014, the number of cases is 54.8% higher. Compared to the same reporting period for the period from 2010-2014 (average), number of cases is 27.9% lower and number of deaths is 54.5% lower. From 10 to 16 August 2015, there were 1633 cases of dengue reported with no death cases. ¹³²

HIV: The official figures on the number of people with HIV/AIDS in Vietnam are vague, but they are on the rise. Health-Education messages relating to AIDS are available all over the countryside, but the official line is that infection is largely limited to sex workers and drug users.

Hepatitis A: A problem throughout the region, this food and water-borne virus infects the liver, causing jaundice, nausea and lethargy. There is no specific treatment for hepatitis A- you just need to allow time for the liver to heal. All travelers to Vietnam should be vaccinated against Hepatitis A.



Figure 18: Vietnam Health Lines of Effort and Functional Areas

Malaria: City and resort areas have minimal to no risk of malaria. The risks of contacting malaria are most prevalent in rural areas. Travelers to isolated areas in high-risk regions such as Ca Mau and Bac Lieu provinces, and the rural south may like to carry a treatment dose of medication for use if symptoms occur. The two strategies to prevent malaria are mosquito avoidance and antimalarial medications. Travelers should seek medical advice on the right medication and dosage.

Measles: Measles remains a problem in Vietnam, including the Hanoi area. Many people born before 1966 are immune as they had the disease in childhood. There is no specific treatment.

Typhoid: Typhoid is a bacterial infection spread via food and water. It gives a high, slowly progressive fever and headache. Vaccination is recommended for all travelers spending more than a week in Vietnam, or traveling outside of the major cities.

Japanese B Encephalitis: This viral disease is transmitted by mosquitoes. It's very rarely caught by travelers, but vaccination is recommended for those spending extended time in rural areas.

Bird Flu: The bird flu virus rears its head from time to time in Vietnam. It occurs in clusters, usually among poultry workers. It's rarely fatal for humans, although a child did die in 2013. When outbreaks do occur, eggs and poultry are banished from the menu in many hotels and restaurants.

Rabies: This is spread by the bite or lick of an infected animal-most commonly a dog or monkey. Seek medical advice immediately after any animal bite and start post-exposure treatment. If vaccinated, the post-exposure treatment is greatly simplified (gently wash the wound with water and apply iodinebased antiseptic). If not vaccinated, a rabies immunoglobulin will need to be received.

In July 2012, the GVN reported outbreaks of rabies in the northern mountainous provinces of Son La, Lai Chau, Dien Bien, Lao Cai (Sapa) and Yen Bai. Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. The most important global source of rabies in humans is from uncontrolled rabies in dogs. In Vietnam, monkeys also pose a risk. Children are often at greatest risk from rabies. They are more likely to be bitten by rabid animals, and are also more likely to be severely exposed through multiple bites in high-risk sites on the body. Travelers in Vietnam should exercise caution around unfamiliar animals and seek immediate medical attention if bitten. ¹³³

Tuberculosis: continues to be a serious health concern in Vietnam.

For more information on communicable diseases, please visit the CDC's website.

Non-Communicable Diseases

Non-communicable diseases affect everyone in Vietnam either directly or indirectly. Sixty percent of all deaths in Vietnam are due to concommunicable diseases which is approximately 20% higher from twenty years ago. Noncommunicable diseases cause approximately 70% of the total burden of disease. The main causes of the non-communicable disease epidemic are well known. The health impact of non-communicable diseases starts for some people before the age of 15 years, and affect females almost as much as males. The rich and the poor are affected, with the poor often affected to a greater extent. There is a substantial and growing impact on people in the middle years, the most economically productive period of life. 134

The major non-communicable diseases kill more Vietnamese citizens than any other cause. The epidemic is large, and rising. While infectious diseases are not to be ignored, it is clear the non-communicable diseases are the major causes of morbidity and mortality in the country. It is also clear from international evidence that much of the impact of noncommunicable diseases is preventable.

Mental disorders such as depression and schizophrenia, and cardiovascular diseases such as stroke and heart attack, each cause 18% of the burden of disease. Stroke causes about 110,000 deaths each year, 20% of all deaths. Chronic respiratory diseases, liver cancer and heart attack cause between 23,000 and 29,000 deaths each year, a total of 15% of all deaths. Diabetes prevalence has tripled in two decades, and the number of cancer cases diagnosed each year increased by 50% in less than ten years. The prevalence of diabetes has more than doubled in Vietnam in the last two decades. It is estimated that there has been a 50% increase in the number of new cases of cancer diagnosed in 2010. The prevalence of hypertension has increased markedly over the past 50 years in Vietnam,

based on a number of surveys covering parts or the entire country.¹³⁵

Training for Health Professionals

According to the 2011 Implementation Review¹³⁶ (by the WHO) of the Vietnam Non-Communicable Disease Prevention and Control Program 2002-2010, extensive training and retraining of health staff is required for the effective management of non-communicable diseases at the hospital or community level.

A review of the projects in the program included multiple activities to educate health staff. Most of the training was provided for staff at the central level and in the specific communes where projects were implemented. Thus there remains large portions of the current health staff that do not have the appropriate level of knowledge to undertake the expanding requirement for non-communicable disease management.

A challenge for the control of noncommunicable diseases in Vietnam is the perception of the people and many health practitioners that the first contact of a person with symptoms of non-communicable diseases should be at a hospital. However, many of the cases which present at the hospital could have been treated by staff at the commune level. This is an inefficient use of the under-resourced and over-burdened hospital system. Furthermore hospital care is thought by many to be the best place for treatment and management of illness. To address this, each of the disease specific projects conducted health staff training and health education for the population.

A related education issue is the fact that many medical staff as well as the community do not think of non-communicable diseases as a collective, but think of each disease separately. There was little evidence of education in the common causes of the non-communicable diseases as part of this Program, although it is clearly needed. Vietnam has capacity and experience in preventive health for communicable diseases. Capacity and experience in non-communicable disease prevention is developing, but much more work needs to be done.

Vietnam Conclusion

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ICONCLUSION

Conclusion

The costs of disaster risks are quite high. "The combination of human and economic losses, plus the additional costs of relief, rehabilitation, and reconstruction, makes disasters an economic as well as a humanitarian issue. Until vulnerability, and consequently risks are reduced, countries with high proportions of population or GDP in hotspots are especially likely to incur repeated disaster-related losses and costs. Disaster risks, therefore, deserve serious consideration as an issue for sustainable development". ¹³⁷

Disasters due to natural hazards can have catastrophic impacts on nations and regions. These events can disrupt the social, economic and environmental status of societies at a number of different levels. The social impact of disasters includes loss of livelihoods, assets and infrastructure, as well as harm to emotional and physical well-being. Disasters can cause social unrest, which can lead to the discontinuation of development programs. Environmental losses are often significant. Disasters tend to hit the poorest most as they have little or no financial or physical resilience. The poor tend to depend most on a well-functioning environment for their livelihoods and struggle most to rebuild their lives and assets in the aftermath of a disaster. The extent of damage caused by disasters depends on the vulnerability of the affected area as well as the severity of the hazard. Consequently, efforts aimed at reducing vulnerabilities through such measures as prior hazard forecasting or enhancing resilience can help to greatly reduce the impact of disasters.¹³⁸

Vietnam's disaster management capacity has improved in recent years. This includes numerous documents, strategies and plans addressing DRR countrywide. Vietnam's disaster prevention and control law, the National Disaster Prevention, Response and Mitigation to 2020 and the National Strategy for Climate Change are prime examples of efforts to improve DRR. Efforts are underway at the national, province and commune levels. Additionally, Disaster risk management action plans have been instituted including construction and reinforcement sea dyke systems, upgrading of embankments and relocation of populations living in high risk areas. A law on natural disaster prevention and control (the Law) took effect in 2014. The Law provides for disaster risk reduction, climate change adaptation and mitigation measures,

from national to local and community levels. It outlines natural disaster prevention and control activities, including a national strategy and plans, and stipulations aimed at the integration of disaster prevention into national and local socio-economic development plans. It applies to Vietnamese agencies, organizations, households and individuals; foreign organizations and individuals, and international organizations that are residing or operating in natural disaster prevention and control in Vietnam.¹³⁹

The majority of staff working disaster risk management in Vietnam spends only part of their time on these issues. Additionally, there is a lack of material resources especially in the areas of risk identification (mapping), training (research institute), education (materials and teaching aids), recovery and reconstruction. However significant efforts have been made to modernize equipment, communication tools, and weather forecasting and early warning systems. Vietnam is employing Community Based Disaster Risk Management, which is at the core of involving communities in preparedness, adaptation and mitigation activities. This will provide the foundation for maximizing resiliency in the face of future natural disaster threats. ¹⁴⁰

According to the National Strategy for Natural Disaster, Prevention, Response and Mitigation to 2020, there is a need for Vietnam to strengthen institutional capacity and collaboration mechanisms amongst ministries and sectors; developing financial allocation mechanism to meet the needs and effectiveness of DRM; and enhancing and promoting the effectiveness of CBDRM to raise awareness to communities in responding to disasters. There is a strong need to establish early warning systems for disaster and climate change in highly prone areas. Vietnam needs to develop an information sharing network between ministries, sectors, localities and NGOs to support the policy formulation process; and enhancing coordination of activities and promoting the participation of multi-stakeholders. Vietnam will also benefit from strengthening public-private partnership in DRR and CCA; improving scientific research and application of new modern technologies in DRM; and mobilizing support, cooperation and assistance from international organizations, donors and NGOs in DRR and CCA.141



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Appendices

Department of Defense DMHA Engagements in the Past Five Years (FY 2010-2015)

The following list contains U.S. DOD engagements related to disaster management and humanitarian assistance (DMHA) that involved Vietnam from 2010 to 2015:

18-21 August 2015- The Pacific Partnership Program, in conjunction with the Naval Postgraduate School's Center for Civil- Military relations conducted a disaster preparedness workshop in Danang. The objective was to increase Vietnam's disaster response capabilities, specifically in the area of civilmilitary coordination.

2 June 2015- U.S. Secretary of Defense Ashton Carter met with Vietnamese President Truong Tan Sang, General Secretary Nguyen Phu Trong, and Defense Minister Gen. Phung Quang to sign a joint vision statement for the bilateral defense relationship. Secretary Carter reaffirmed the U.S. commitment to Vietnam and the Asia-Pacific region, reiterating the U.S.' support for a regional architecture that allows all countries in the Asia-Pacific to rise and prosper.¹⁴²

9-12 December 2014- The Defense Threat Reduction Agency (DTRA) Chemical, Biological, Radiological, and Nuclear (CBRN) Preparedness conducted an Incident Command System (ICS) Subject Matter Expert Exchange (SMEE) in Hanoi, Vietnam. Participants included VINSARCOM and MARD. An exercise scenario involving the use of a chemical time-phased scenario facilitated discussion of plans in place, and organizations responsible for a response to a natural disaster that causes a CBRN incident. DTRA CBRN preparedness team members met with representatives from the U.S. embassy and conducted an outbrief of the SMEE and a way ahead for future activities in Vietnam.

17-20 November 2014- Advisory Board members of the PACOM-Disaster Management Working Group met with the member of the Office of Defense Cooperation, U.S. Embassy Vietnam (ODC Vietnam) in Hanoi, Vietnam to define the scope and purpose of their abilities and processes to assist with the synchronization of the DOD engagement activities in Vietnam. Advisory Board members include Oregon National Guard State Partnership Program, United States Pacific Command Center for Excellence in Disaster Management and Humanitarian Assistance (USPACOM CFE-DMHA), USAID, and representatives from ODC Vietnam. Other stakeholders included Defense Threat Reduction Agency and the Naval Postgraduate School. The DMWG Advisory Board met with VINASARCOM leadership to further clarify future engagement proposals. ¹⁴³

September 2014- The Vietnam HADR synchronization Working Group was established. The goal of the working group is to facilitate discussion amongst U.S. HADR stakeholders conducting or with the intent to conduct HADR events/activities/operations in Vietnam in order to promote collaboration, coordination and synchronization to increase efficiency of U.S. efforts.

28 Jul- 1 Aug 2014- U.S. Army Pacific (USARPAC) held a Lower Mekong Initiative (LMI) Disaster Response Exercise Initial Planning Conference (IPC). It brought together civilian and military representatives across all aspects of emergency preparedness, response, and various aspects of government organizations in order to develop a comprehensive medium to achieve common response and recovery goals.

31 May 2014- Secretary of Defense Chuck Hagel's meeting with Vietnam's Defense Minister Gen. Phung Quang Thanh in Singapore. The two met on the sidelines of the annual Shangri-La Dialogue, a major annual forum for key leaders in the Asia-Pacific region to discuss security challenges and opportunities. Secretary Hagel and Gen. Thanh discussed a number of security challenges facing the region, including their mutual concerns over the recent provocative behavior by the Chinese in the South China Sea. Secretary Hagel thanked the Vietnamese for their continued leadership within ASEAN, as both leaders reaffirmed the growing role of ASEAN in addressing the regional issues such as maritime security and disaster response. 144

April 2014- Explosive Ordnance Disposal Mobile Unit FIVE (Guam) conducted initial planning to execute an FY 2014 HMA event. The focus was on identifying logistic requirement and Schedule of Event execution.

14-18 Jan 2014- USPACOM attended the ADMM+ Executive Working group on HADR. This was the last major event of the working group while under the co-chairmanship of Vietnam and China. The chair was turned over to Laos and Japan. The assessment of the first three years of the ADMM+HADR EWG was deemed successful in creating landmark levels of cooperation between militaries by creating a venue for countries to exercise and train together and work out details of standard operating procedures. The highlight of the co-chairmanship was the ADMM+ exercise in Brunei. Additionally, the incoming chair, Japan presented a well thought and aggressive plan for the next three years. This included building on work that has been done, but also developing new and concrete objectives for the next three years.

18-23 November 2013- Marine Forces Pacific medical and EOD representatives conducted an Initial Program Development Visit to determine a way ahead for Humanitarian Mine Action. They met with ODC and VPA personnel.

October 2013- The AHA Center and Vietnam hosted an ASEAN Regional Disaster Response Exercise. The event provided an opportunity to practice, test and evaluate the readiness of disaster responders and emergency response mechanisms under the ASEAN Standby Arrangements and Standard Operating Procedures (SASOP). The ARDEX was also a means of identifying lessons learned to further improve the SASOP and the participants' actual joint response to disasters.¹⁴⁵

10-14 June 2013- Pacific Air Forces participated in Pacific Angel 2013. This demonstrated U.S. goodwill and global reach as well as promoting regional civil/military partnerships and enhancing Military-Military, Military-Civilian, Military-Non-Governmental Organization and Military-Inter-Agency Interoperability. Objectives included U.S. Air Force/ Air National Guard demonstration of HADR airlift capabilities.

13-14 March 2013- USPACOM (Center for Excellence in DMHA) attended the Mid-Term Review of the Bilateral Defense Talks with the Vietnamese MND in Hanoi. USPACOM served as co-chair of the HADR Working Group. This was also an opportunity to assist the Oregon National Guard in making the State Partnership Program with Vietnam successful. HADR is a key part of the Oregon National Guards military to military program.

7- 10 August 2012- USPACOM attended the ADMM+ HADR Experts Working Group (EWG). This forum involved 18 nations representing a region of significant global importance coming together to exchange ideas regarding efficient and effective response HADR.

9-12 June 2012- PACAF conducted an Aerospace Medicine Subject Matter Expert Exchange in conjunction with Pacific Angel. This was part of USAF relationship building with the Vietnam Air Defense/Air Force-based ground aerospace medicine.

1 Apr-30 June 2012- USARPAC engaged in talks to further engage with Vietnamese land forces to promote building partner's capacity/ capability for future engagements.

15-18 August 2011- USPACOM supported the Vietnam Disaster Readiness Exercise and Exchange (DREE) with 13th Air Force and PACAF.

5-28 July 2011- Joint Department of State-USPACOM hosted annual multidisciplinary symposium for security experts (military, government and academic) from the PACOM Area of Responsibility to discuss regional security issues among themselves and in host nations (China, Vietnam and Australia)

1 Oct 2010-30 Sep 2011- Vietnamese MND Officials conducted exploratory discussions and visit on the State Partnership program with USPACOM, the National Guard Bureau and West Coast state officials.

Hyogo Framework for Action Country Progress Report

The HFA was adopted as a guideline to reduce vulnerabilities to natural hazards.¹⁴⁶ The HFA assists the efforts of these countries to become more resilient to, and manage better the hazards that threaten their development. Below is a summarization of the 2013-2015 results of the HFA for Vietnam. The full report is available at http://www.preventionweb.net/english/policies/v.php?id=42305&cid=190

Strategic Goal Area 1:

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Strategic Goal Area 2:

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Area 3:

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities.

Level of Progress* Achieved for HFA Priorities



Future Outlook Area 1: The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Challenges:	Inter-sectoral coordination for the elaboration and implementation of the plans is still an area that requires further work. This is not only important for DRR but more broadly for sustainable socio-economic development. There is need for improved inter-sectoral coordination in order that plans do not conflict, compromise the effectiveness of other plans to reduce vulnerabilities or indeed through their cumulative effect actually serve to increase disaster risk impacts or vulnerabilities. There is also a need for a more coherent, integrated, structured and holistic approach towards DRM planning as opposed to dealing with specific hazards such as floods individually.
Future Outlook Priorities:	The legal documents related to the issue of disaster risk reduction are currently scattered in many different places and further consolidation and coordination in implementation is required. The Law on Disaster Prevention and Control is a strong base to strengthen this process.
Future Outlook Area 2: The development and strengthening of institutions, mechanisms and capacities at	
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all levels, in particular at the community level, that can systematically contribute to building resilience to	
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Challenges:	Challenges exist in terms of institution building and the implementation of policies, legal documents, projects, programs and activities on DRM. In Vietnam most disasters are water related, and state management of water resources still overlap and are inconsistent. A lack of close collaboration between DRR and Climate Change works persists. Enhanced information sharing, communication and legal requirements are required to ensure closer integration of these two communities.	
Future Outlook Priorities:	Vietnam's new Disaster Prevention and Control Law (2013) aims to strengthen institutional structures and coordination mechanisms with the intention being to streamline CCA and DRR. It also proposes a new Department for Disaster Prevention and Control within MARD. This will assist considerably with institutional coordination, in ensuring that DRR considerations are better mainstreamed and potentially facilitate inter-sectoral planning and integrated approaches to DRM planning.	
Future Outlook Area 3: The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities.		
Challenges:	The increased occurrence, intensity and severity of disasters, combined with a rapidly expanding population and economic growth, with cities and towns particularly with more physical assets of greater economic value, has meant that the costs of post-disaster response, recovery and reconstruction are increasing in real terms. A challenge lies in being able to mobilize financial resources and quickly in order that the economy remains on track and that the country is able to grow and develop sustainably.	
Future Outlook Priorities:	Implementation of national policy will require further investments of resources to ensure that disaster affected communities are able to 'build back better'. A more structured approach to post-disaster recovery and reconstruction is also required for the future, which will necessarily have to include a fairly substantial reform to the way in which post-disaster recovery and reconstruction is currently financed. Improved tools for conducting damage and needs assessments (recently reviewed in the aftermath of disasters) will assist greatly in determining more accurately the required costs for recovery and reconstruction.	

Vietnam National Progress Report on the Implementation of Hyogo Framework for Action (2013-2015)

The report is intended for the following principal audiences: national governments of Asia-Pacific region, multiple stakeholder groups, sub-regional and regional organizations, interested UN and donor agencies, international organizations, individual experts and all those with a stake in DRR.

Below are the 2013-2015 results of the HFA for Vietnam:

Core Indicator*	Indicator Description	Level of Progress Achieved*
1	National policy and legal framework for disaster risk reduction exists with decentralized responsibilities and capacities at all levels.	4
2	Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels.	4
3	Community participation and decentralization is ensured through the delegation of authority and resources to local levels.	4
4	A national multi sectoral platform for disaster risk reduction is functioning.	3
Priori	ty for Action #2: Identify, assess and monitor disaster risks and enhance early v	varning
1	National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.	3
2	Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.	3
3	Early warning systems are in place for all major hazards, with outreach to communities.	4
4	National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.	4
	Priority for Action #3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels	
1	Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc.).	3
2	School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices.	3
3	Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.	2
4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.	3
	Priority for Action #4: Reduce the underlying risk factors	
1	Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.	3
2	Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.	2
3	Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities.	4

4	Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.	4
5	Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes.	2
6	Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.	2
Prior	Priority for Action #5: Strengthen disaster preparedness for effective response at all levels	
1	Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.	4
2	Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programs.	4
3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.	4
4	Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.	4

Notes:

*Level of Progress:

- 1 Minor progress with few signs of forward action in plans or policy
- 2 Some progress, but without systematic policy and/ or institutional commitment
- 3 Institutional commitment attained, but achievements are neither comprehensive nor substantial
- 4 Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities
- 5 Comprehensive achievement with sustained commitment and capacities at all levels

Force Protection/Pre-Deployment information

Passport/Visa

Vietnam entrance requirements include a valid passport with at least six months validity remaining beyond the date of arrival and a Vietnamese visa, a visa exemption document, or a written approval letter from a visa upon arrival. Vietnamese visas are usually valid for a single entry, unless the traveler specifically requests a multiple-entry visa.

If planning to leave Vietnam and re-enter from another country, travelers should ensure their visa is valid for multiple entries into Vietnam. Even if travelers have a valid visa, they may be refused entry into Vietnam. Note that Vietnamese immigration regulations require foreigners entering Vietnam to undertake only the activity for which their visas were issued. Travelers who plan to perform volunteer or charitable work should obtain the correct visa classification before traveling to Vietnam. If the purpose of the visit changes after travelers receive their visa, a new one must be obtained outside of Vietnam appropriate for the new travel purpose.

Emergency Contact Information

The local equivalent to the "911" emergency line in Vietnam is 113.

For U.S. Citizens, contact the U.S. Embassy in Hanoi:

U.S. Embassy Hanoi

170 Ngoc Khanh Ba Dinh District Hanoi, Vietnam Telephone: +(84) (4) 3850-5000 Emergency After-Hours Telephone: +(84) (4) 3850-5000 or (04) 3850-5000/3850-5105 Fax: +(84) (4) 3850-5010 acshanoi@state.gov

Consulates

U.S. Consulate General Ho Chi Minh City

4 Le Duan, District 1 Ho Chi Minh City, Vietnam Telephone: +(84) (8) 3520-4200 Emergency After-Hours Telephone: +(84) (8) 3520-4200 Fax: +(84) (8) 3520-4244 Inquiries: http://hochiminh.usconsulate.gov/ contact_acs.html The 24-hour alarm and medical centers in Vietnam are listed below by region: Hanoi: +84 4 3843 0748 Danang: +84 913 917 303 Ho chi Minh City: +84 8 3822 7848

Currency Information

The currency in Vietnam is the Vietnamese Dong (VND)

Travel Health Information

Before visiting Vietnam, the CDC advises *MOST* travelers to get the following vaccines:¹⁴⁸

- *Routine vaccines:* Make sure you are up-todate on routine vaccines before every trip. These vaccines include the measles-mumpsrubella vaccine, diphtheria-tetanus-pertussis vaccine, varicella (chickenpox) vaccine, polio vaccine, and your yearly flu shot.
- *Hepatitis A:* CDC recommends this vaccine because you can get hepatitis A through contaminated food or water in Vietnam, regardless of where you are eating or staying.
- *Typhoid:* You can get typhoid through contaminated food or water in Vietnam. CDC recommends this vaccine for most travelers, especially if you are staying with friends or relatives, visiting smaller cities or rural areas, or if you are an adventurous eater.

The CDC advises *SOME* travelers depending on a longer stay, what you will be doing in Vietnam, and if you are traveling from a country other than the U.S. to get the following vaccines:

- *Japanese Encephalitis:* You may need this vaccine if your trip will last more than a month, depending on where you are going in Vietnam and what time of year you are traveling. You should also consider this vaccine if you plan to visit rural areas in Vietnam or will be spending a lot of time outdoors, even for trips shorter than a month. Your doctor can help you decide if this vaccine is right for you based on your travel plans.
- *Hepatitis B:* You can get hepatitis B through sexual contact, contaminated needles, and blood products, so the CDC recommends this vaccine if you might have sex with a new partner, get a tattoo or piercing, or have any medical procedures.

- Malaria: When traveling in Vietnam, you should avoid mosquito bites to prevent malaria. You may need to take prescription medicine before, during, and after your trip to prevent malaria, depending on your travel plans, such as where you are going, when you are traveling, and if you are spending a lot of time outdoors or sleeping outside. Talk to your doctor about how you can prevent malaria while traveling.
- *Rabies:* can be found in dogs, bats, and other mammals in Vietnam, so the CDC recommends this vaccine for the following groups:
 - -Travelers involved in outdoor and other activities (such as camping, hiking, biking, adventure travel, and caving) that put them at risk for animal bites.
 - -People who will be working with or around animals (such as veterinarians, wildlife professionals, and researchers).
 - -People who are taking long trips or moving to Vietnam
 - -Children, because they tend to play with animals, might not report bites, and are more likely to have animal bites on their head and neck.
- *Yellow Fever:* There is no risk of yellow fever in Vietnam. The GVN *requires* proof of yellow fever vaccination **only** if you are arriving from a country with risk of yellow fever. This does **not** include the U.S.

Medicines

Medicines may be purchased (both prescription and non-prescription) at pharmacies. However, some common U.S. medications are not available in Vietnam. Travelers should bring adequate supplies of medications for the duration of your stay in Vietnam. You may obtain lists of local Englishspeaking physicians from the U.S. Embassy in Hanoi or the U. S. Consulate General in Ho Chi Minh City. ¹⁴⁹

Vietnam Government Ministries, Offices and Committees

Office of the Government 1 Hoang Hoa Tham, Hanoi Tel: (84-4) 0804 3100 Fax: (84-4) 0804 4130	Office of the National Assembly 35 Ngo Quyen, Hanoi Tel: (84-4) 0804 8079 Fax: (84-4) 0804 8278 Web: www.na.gov.vn
Ministry of Transport & Communications 80 Tran Hung Dao Str., Hanoi. Tel: (84-4) 3942 4015/ 3942 0185 Fax: (84-4) 3942 3291Web: www.mt.gov.vn	Ministry of Education and Training (MoET) 49 Dai Co Viet, Hanoi Tel: (84-4) 3869 5144 Fax: (84-4) 3869 4085 Web: www.edu.net.vn
Ministry of Labor, Invalids & Social Affairs (MOLISA) 12 Ngo Quyen Street, Hanoi Tel: (84-4) 3826 9557 Fax: (84-4) 3824 8036 Web: www.molisa.gov.vn	Ministry of Science & Technology 39 Tran Hung Dao Street, Hoan Kiem District, Hanoi Tel: (84-4) 3943 9731, Fax: (84-4) 3943 9733 Web: www.most.gov.vn
Ministry of Natural Resources and Environment (MoNRE) 83 Nguyen Chi Thanh, Hanoi Tel: (84-4) 3834 3005 Fax: (84-4) 3835 9221 Web: www.monre.gov.vn	Ministry of Foreign Affairs (MOFA) 1 Ton That Dam Street, Hanoi Tel: (84-4) 3799 2000/ 3799 3000 Fax: (84-4) 3799 2682 Web: www.mofa.gov.vn
Ministry of Finance 28 Tran Hung Dao, Hanoi Tel: (84-4) 2220 2828 Fax: (84-4) 2220 8020 Web: www.mof.gov.vn	Ministry of Agriculture & Rural Development (MARD) 2 Ngoc Ha Street, Ba Dinh District, Hanoi Tel: (84-4) 3846 8161 Fax: (84-4) 3845 4319 Web:http://www.mard.gov.vn/en
Ministry of Industry and Trade 54 Hai Ba Trung Hoan Kiem District, Hanoi Tel: (84-4) 2220 2101 Fax: (84-4) 2220 2525	Ministry of Justice 58-60 Tran Phu, Hanoi Tel: (84-4) 3843 8847 Fax: (84-4) 3843 1431
Ministry of Culture, Sport and Tourism 51-53 Ngo Quyen Street, Hoan Kiem District, Hanoi. Tel: (84-4) 3943 9915 Fax: (84-4) 3943-9009	Ministry of Public Security 44 Yet Kieu, Hanoi Tel: (84-4) 3822 6602 / 0694 2545 Fax: (84-4) 3942 0223 / 0694 1038
Ministry of Health 138A Giang Vo Str., Hanoi Tel: (84-4) 6273 2273 Fax: (84-4) 6846 4051 Web: www.moh.gov.vn	Ministry of Construction 37 Le Dai Hanh Str., Hai Ba Trung District, Hanoi Tel: (84-4) 3976 0271 Fax: (84-4) 3976 2153 Web: www.moc.gov.vn

Ministry of Home Affairs 37A Nguyen Binh Khiem, Hanoi Tel: (84-4) 3976 4116 Fax: (84-4) 3978 1005	Ministry of Planning & Investment(MPI) 6B Hoang Dieu, Hanoi Tel: (84-4) 0804 3358 Fax: (84-4) 3823 4453 Web: www.mpi.gov.vn
General Statistics Office 2 Hoang Van Thu, Hanoi Tel: (84-4) 3846 4928 Fax: (84-4) 3843 8907 Web: www.gso.gov.vn	Ministry of National Defense 7 Nguyen Tri Phuong, Hanoi Tel: (84-4) 069 534 223 Fax: (84-4) 069 532 090
National Committee for the Advancement of Women 12 Ngo Quyen, Hanoi Tel: (84-4) 3936 4400 Fax: (84-4) 3825 3875	Committee for Storm Control 2 Ngoc Ha, Hanoi Tel: (84-4) 3733 5693 / 3733 5686 Fax: (84-4) 3733 5701
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Culture

Family Life: In Vietnam's traditional society, a typical family has three or four generations living under the same roof. ¹⁵¹With the view of "more children, more fortunes", many families want to have lots of children and grandchildren. Influenced by Confucianism and the feudal view of male preference, men play the most important roles in family and always have final say. Feudal ethics shape women around "three obediences, four virtues" (three obediences: obedience to their fathers during childhood, to their husbands when married and to their sons in widowhood; four virtues: diligence, good manner, proper speech, and morality). Since reunification, the State of Vietnam has adopted a number of legal documents, notably Law on Marriage and Family, in order to make family relations more equal. Different measures have also been taken to raise the awareness of the public and change the obsolete attitude, ensure gender equality and fight for the legitimate rights of women.

Today, Vietnamese family size tends to be narrowed down to two or three generations. Most couples have only two children. The advocacy for men's superiority over women is weakening and gradually being eliminated. However, the time-honored tradition of "respect for the elderly and love for the children" has been maintained and advocated in each and every Vietnamese family.

Costume: Most ethnic groups in Vietnam have their own costumes that reflect their unique cultural identities. Most of these costumes are decorated with vivid patterns in contrast colors: black-white, black-red, green-red or greenwhite and made of natural fiber such as ramie, silk, pineapple yarn or cotton. These materials are fine, durable and sweat-absorbing, suitable for tropical climate. The traditional costume of Vietnamese men was white pants, brown tops with scarf and ordinary sandals or wooden clogs called "guoc". The official costume for men includes velvet or cotton long dress and turban. For women, costumes are more complicated and colorful with black skirt, white brassieres, four-panel dress with "crow-beak" scarf and pergularia-like belt. The official costume includes three layers of dress. The first one is the velvet four-panel dress in dark color or light brown, then a light yellow dress underneath and a lotuscolored one. Wearing this costume, the woman only fastens the buttons below her underarms, and the upper part is opened to show the three colors of their dresses. Beneath these three

dresses is a red brassiere. They wear a special large conical hat called "non", which gives them an elegant look and makes Vietnamese women more graceful.

Today, the official costumes of the Vietnamese people have changed. Suits have replaced the traditional costume of Vietnamese men. The long dress or Ao Dai, which was first worn under Lord Nguyen Phuc Khoat's regime, has been modified to better suit Vietnamese women and is used in many important ceremonies of the year. The modern Au Dai is a tunic slit to the waist with the two loose panels falling down to mid shin. This dress, which is really suitable to the small build of a Vietnamese woman, reveals the hidden beautiful curves of her body. Currently, with increasing exchanges among different cultures, Vietnamese clothing becomes more diverse and fashionable, reflecting a higher level of integration, especially that of urban youth.

Acronyms and Abbreviations

Acronym	Definition
AADMER	ASEAN Agreement for Disaster Management Emergency Response
ADB	Asian Development Bank
ADRA	Adventist Development and Relief Agency
ASEAN	Association of Southeast Asian Nations
°C	Degree Celsius
CBDRM	Community Based Disaster Risk Management
CBRN	Chemical, Biological, Radiological, and Nuclear
CCA	Climate Change Adaptation
CCFSC	Central Committee for Flood and Storm Control
CDC	US Center for Disease Control and Prevention
CECI	Center for International Studies and Cooperation
CFSC	Committee for Flood and Storm Control (provincial, city, commune level)
CFE-DMHA	Center for Excellence in Disaster Management and Humanitarian Assistance
CIA	Central Intelligence Agency
CPS	Country Partnership Strategy
CRS	Catholic Relief Services
DDMFSC	Department of Dyke Management & Flood and Storm Control
DFAT	Department of Foreign Affairs and Trade
DMC	The Disaster Management Center
DoD	Department of Defense
DoS	Department of State
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSCA	Defense Security Cooperation Agency
DTRA	Defense Threat Reduction Agency
ЕСНО	European Commission's Humanitarian aid and Civil Protection Directorate General
FAO	United Nations Food and Agriculture Organization
GSO	General Statistics Office
GVN	Government of Vietnam
HDR	Humanitarian Daily Rations
HFA	Hyogo Framework for Action
HPM	Habitat Program Manager
IFRC	International Federation of the Red Cross and Red Crescent Societies
ILO	International Labor Organization

Acronym	Definition
IMSO	International Mobile Satellite Organization
IOM	International Organization for Migration
IPC	Initial Planning Conference
JANI	Joint Advocacy Network Initiative
JICA	Japan International Cooperation Agency – Vietnam
LOE	Lines of Effort
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goal
MIC	Ministry of Information and Communication
MND	Ministry of National Defense
MoET	Ministry of Education and Training
MoF	Ministry of Finance
MOFA	Ministry of Foreign Affairs
MoIC	Ministry of Information and Communications
MOLISA	Ministry of Labor, Invalids & Social Affairs
MoNRE	Ministry of Natural Resources and Environment Finance
MPI	Ministry of Planning and Investment
NCHMF	National Center for Hydro-Meteorological Forecasting
NCSR	National Committee for Searching and Rescue
NGO	Nongovernmental Organization
NTP	National Target Program
ODA	Official Development Assistance
OFDA	Office of Foreign Disaster Assistance
OPCW	Organization for the Prohibition of Chemical Weapons
PAVN	People's Army of Vietnam
PDC	Pacific Disaster Center
PWA	Peace Winds America
RIRF	Report on International Religious Freedom
SASOP	Standby Arrangements and Standard Operating Procedures
U.S.	United States
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-HABITAT	The United Nations Human Settlements Program
UNICEF	United Nations Children's Fund Vietnam
UNIDO	United Nations Industrial Development Organization
UNISDR	United Nations International Strategy for Disaster Reduction
UNODC	United Nations Office on Drugs and Crime

Acronym	Definition
UNV	United Nations Volunteers in Vietnam
USAID	United States Agency for International Development
USPACOM	United States Pacific Command
UXO	Unexploded Ordnance
VND	Vietnamese Dong
VNRC	Vietnam Red Cross
VoV	Radio Voice of Vietnam
VTV	Vietnam Television
WHO	United Nations World Health Organization
WVV	World Vision Vietnam

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