

Risk Mapping Vietnam

Sector Disaster Risk Reduction & Emergency Aid

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Table of Contents

Fast Facts	3
HAZARDS	3
Natural Hazards	3
Tropical Storms	3
Floods	3
Mudslides	3
Drought	4
Earthquakes	4
Environmental hazards	4
Epidemics	4
Conflict hazard	4
VULNERABILITY	5
Indicators	5
CAPACITY	5
Government	5
Civil Society	6
International Coordination	6
SYNTHESIS	6
Resources & Contacts	6

Appendix: hazard map Vietnam

Socialist Republic of Vietnam

Fast Facts¹

Capital: Hanoi Population: 90,5 million Population Density: 292 / sq. km Administrative regions: 58 provinces, 5 municipalities Major ethnic groups: Kinh (Viet) 85.7%, Tay 1.9%, Thai 1.8%, Major religion: none 80.8%, Buddhist 9.3%, Catholic 6.7%	Official languages: Vietnamese (official), English (increasingly) Climate: tropical in south, monsoonal in north Pop. Affected by natural disasters (average/year/mln people): 19 794 World Risk Index: 34 (173) Cordaid sectors: Entrepreneurship, CT, H&W
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Hazards

Natural Hazards

Tropical Storms

Vietnam is often hit tropical storms and occasionally by typhoons, in the period of May to January. These storms consist of strong winds and heavy torrential rains; generally they can cause flooding, especially in the Mekong River delta. They affect about 1% of the population. Looking at disaster history we can see that tropical storms are affecting the most people, leave a lot of economical damage and also take a lot of lives.² The largest most recent storm, typhoon Ketsana in 2009, affected near 2,4 million people, 200 thousand fled their homes and 30 were killed in the central provinces.³ The whole country is at risk for these storms and the coastal areas more so than inland.⁴

Floods

Floods also occur very often in Vietnam, at least several times a year. Most flooding occurs in coastal areas or near rivers. The Mekong River delta in the south and the northern delta regions near Hanoi and the Red River are more susceptible to floods. In 2000 a flood affected the lives of an estimated 5 million people and killed around 460 in the regions of the Mekong River Delta as well as near Hanoi.⁵ What one must take in mind is that the population distribution in Vietnam is highest in these high risk areas around the Mekong and Red River delta, as well as the coastal areas.⁶ Almost 4% of the population is directly exposed to flood hazard.

Mudslides

Mudslides occur mostly due to rainfall in Vietnam. Nearly the whole country is prone to this hazard. Especially the hilly areas in the north-west and the central-west are exposed. These are the areas that are not so much exposed to flooding and are less densely populated than the coastal areas and the major deltas.⁷

¹ CIA Factbook (2011). Vietnam. <https://www.cia.gov/library/publications/the-world-factbook/geos/vm.html> viewed on 15.11.2011.

² Preventionweb (2011). Vietnam. Disaster statistics. <http://www.preventionweb.net/english/countries/statistics/?cid=190> viewed on 23.11.2011.

³ BBC news (2009). Typhoon Ketsana blasts Cambodia. <http://news.bbc.co.uk/2/hi/asia-pacific/8281950.stm> viewed on 23.11.2011.

⁴ Global Risk Data Platform (2010). Vietnam. Event. <http://preview.grid.unep.ch/index.php?preview=map&iso=VNM> viewed on 23.11.2011.

⁵ Reliefweb (2011). Vietnam. Floods and Storms Appeal No. 23/2000 Final Report. <http://reliefweb.int/node/117657> viewed on 23.11.2011.

⁶ Wasatch Economics (1999). Vietnam population density. <http://wasatchecon.wordpress.com/2010/10/15/vietnam-population-distribution/> viewed on 23.11.2011.

Drought

Major droughts do not occur all too often in Vietnam but they have happened in the past. The last major drought occurred in 1997 and affected 3 million people especially in the forestry and industrial farming. There was a lack of rainfall and very high evaporation rates and salt water intrusion increased rapidly in the Mekong Delta. Forest fires followed.⁸ The highlands do experience a lack of rains.⁹ We must keep in mind that Vietnam can be severely affected by climate change which means that natural hazards like droughts might increase in number and severity in the near future.¹⁰

Earthquakes

Earthquakes have occurred occasionally in the past 30 years. But the amount is limited and so is the damage. The most earthquake prone zone in Vietnam would be the north-west.¹¹

Environmental hazards

Vietnam is experiencing deforestation and soil degradation due to extensive logging and slash-and-burn agricultural practices. Marine life is threatened by over fishing and water pollution; potable water is also limited. The massive growth in urban industrialisation is degrading the environment in the regions of Hanoi and Ho Chi Minh City.¹²

Epidemics

The Vietnamese are at high risk of catching diseases. The major diseases are bacterial diarrhoea, hepatitis A, typhoid fever, dengue fever, malaria, Japanese encephalitis, plague and leptospirosis.¹³ However, epidemics don't occur too often.

Conflict hazard

Vietnam is in a territory dispute with China over the South China Sea rich in both fish and oil.¹⁴ This dispute also involves the Philippines, Malaysia and Taiwan. This year the diplomatic became tenser. The dispute has been going on for years, in 2002 they signed an accord committed to show restrained in the disputed waters. Last year the situation flared up because the UN required all nations to file claims. The documents of China and Vietnam asserting the claims were more aggressive than before. China and Vietnam have both responded to each other with naval activities in the area to establish a presence.¹⁵

Another rising issue is that Vietnam has been accused of suppressing political dissent and religious freedom. Concerns have been expressed about Hanoi's treatment of ethnic minority hill tribe people, collectively known as Montagnards. These minorities desire freedom of religion, mainly Christianity, and land rights but have been heavily persecuted by the government.¹⁶

⁷ Global Risk Data Platform (2010). Vietnam. Event/ Hazard/Risk. <http://preview.grid.unep.ch/index.php?preview=map&iso=VNM> viewed on 24.11.2011.

⁸ Nguyen Huu Ninh (2000). Vietnam country case study. The Case of the 1997-1998 El Nino. <http://ccb.colorado.edu/un/vietnam.html> viewed on 24.11.2011.

⁹ Alliantie Samen voor Verandering (2010). Communities for Change. MSF II. Context analyse Vietnam. Bijlage 2.28.

¹⁰ IFPRI (2010). Impacts of Climate Change on Agriculture and Policy Options for Adaptation. The Case of Vietnam.

¹¹ Global Risk Data Platform (2010). Vietnam. Event / Hazard/Risk. <http://preview.grid.unep.ch/index.php?preview=map&iso=VNM> viewed on 23.11.2011.

¹² CIA Factbook (2011). Vietnam. <https://www.cia.gov/library/publications/the-world-factbook/geos/vm.html> viewed on 15.11.2011.

¹³ CIA Factbook (2011). Vietnam. <https://www.cia.gov/library/publications/the-world-factbook/geos/vm.html> viewed on 15.11.2011.

¹⁴ BBC (2011). Vietnam country profile. http://news.bbc.co.uk/2/hi/asia-pacific/country_profiles/1243338.stm viewed on 24.11.2011.

¹⁵ The New York Times (2011). Disputes between Vietnam and China escalates over competing claims in South China Sea. http://www.nytimes.com/2011/06/11/world/asia/11vietnam.html?_r=1&adxnnl=1&adxnnlx=1322137392-awXkWXjyT+UC5zljE0bpcA viewed on 24.11.2011.

¹⁶ Human Rights Watch (2011). Vietnam: Montagnards Harshly Persecuted. <http://www.hrw.org/news/2011/03/30/vietnam-montagnards-harshly-persecuted> viewed on 24.11.2011.

Vulnerability

Indicators¹⁷

Human Development Index (out of 187)	128	Adult literacy rate (% aged >15)	92.8
GDP per capita (USD)	2682	Mean years of schooling (of adults)	5.5
Gini Coefficient	37.6	Gender inequality index	0.305
Living below 1,25 (USD) a day (% pop)	13.1	Global hunger index (>20 alarming)	11.2 ¹⁸
Life expectancy at birth (years)	75.2	Corruption perceptions index (10 = clean)	2.7 ¹⁹
Infant mortality rate (per 1000 live births)	24		

The most occurring hazards are floods and tropical storms, the groups that are most vulnerable for these are those living in coastal areas and in river deltas. The case in Vietnam is that the population distribution is most dense in exactly these areas. These people are most at risk and they are a large group, and growing. The urban poor are very vulnerable, living in poor housing in exposed areas. Those that do not live in these areas live in the highlands, which are more susceptible to mudslides.

Another vulnerable group are the Montagnards who are repeatedly harassed and suppressed by the government. This group may be excluded when it comes to disaster risk reduction and emergency relief when disaster strikes. Most of these tribal hill people live in the central highlands of Vietnam, regions occasionally prone to mudslides. These areas are very remote and cut off from social services and basic provisions from the government.

Capacity

Government

Vietnam is a one-party communist state; it has always been fighting with weather hazards and has developed a comprehensive system of disaster management that is able to provide certain levels of protection. However, it is constrained by limited resources.²⁰

In 2007 the National Strategy on Disaster Prevention, Response and Mitigation was developed as a key policy document related to disaster risk management (DRM). Vietnam is improving with respect to integrating disaster risk reduction (DRR) within the national sectoral plans. They have also introduced a National Target Programme on Climate Change Adaptation in 2009 which applies several proposed action to reduce vulnerability. Almost all ministries have developed DRM action plans. Yet these plans mainly include infrastructural up scaling (such as enforcing dykes) rather than focusing on local DRR, planning and budgeting. Vietnam is taking steps to increase the capacities in all areas, especially at local level. The government has a well established emergency response team with high search and rescue capacities. Early warning systems seem to be in place, even though there is less preparedness at the local level. However, there is a significant funding gap in post-disaster reconstruction and there is not a programme in this field. Vietnam still needs to actually implement the plans of the ministries, especially at the local level. Furthermore, inter-sectorial management and planning is quite weak, there is hardly any coordination. This is visible in hazard assessment, there is data available within some sectors but there is no centralised sharing platform. Vietnam aims to decentralise DRM and this seems to be the case, however, the involvement of vulnerable groups is still limited and in effect the plans are still managed in a top-down manner. There is also no DRR platform in Vietnam where civil society, government and sectoral

¹⁷ UNDP (2011) Viet Nam <http://hdrstats.undp.org/en/countries/profiles/VNM.html> viewed on 24.11.2011.

¹⁸ IFPRI (2011). Global Hunger Index 2011. <http://www.ifpri.org/sites/default/files/publications/ghi11.pdf> viewed on 20.12.2011.

¹⁹ Transparency International (2010). Corruption Perceptions Index 2010. http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results viewed on 20.12.2011.

²⁰ Nguyen Huu Ninh (2000). Vietnam country case study. The Case of the 1997-1998 El Nino. <http://ccb.colorado.edu/un/vietnam.html> viewed on 24.11.2011.

organisations come together. The CCSFC is committed to set up a platform but it is not fully a multi-stakeholder DRR platform.²¹

Civil Society

Civil society in Vietnam is not very strong. The organisations are very broad based but do not seem to be anchored deep into society. The environment is quite disabling which may have to do with the one party communist state; however, the establishment of a market economy and the private sector have improved this. There is limited strength and even less impact due to bureaucracy and lack of coordination. However, some do have more reach than the governmental counterparts and thus have more impact.²²

International Coordination

Vietnam does not formally implement the cluster approach of humanitarian coordinators.

Synthesis

Vietnam is a high risk country, experiencing multiple disasters. The biggest population clusters are in the major deltas which are very prone to flooding. Vietnam is susceptible to the effects of climate change as well. The following points illustrate the main risks in this country based on hazards, vulnerability (as population exposed) and history.

- Vietnam is most affected by flooding due to heavy storms or cyclones. 3,5 million people are directly exposed to flooding. Most of them live large metropolitan areas. Large floods like these have affected over a million people at once in the past.
- In the future we can expect more instances of drought, especially in the highlands. In the past droughts have not occurred often but have impacted the lives of 3 million people who rely on subsistence farming.

Resources & Contacts

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²¹ Preventionweb (2010). Vietnam. National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011). HFA monitor Update. PreventionWeb. http://preventionweb.net/files/15492_vnm_NationalHFAprogress_2009-11.pdf viewed on 28.11.2011.

²² Norlund, I. (ed.) (2006). The emerging civil society. An initial assessment of civil society in Vietnam. SCI-SAT Vietnam.