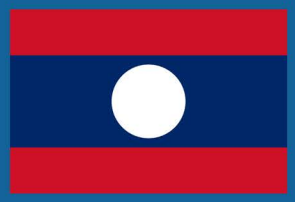




VIANGCHAN
(VIENTIANE)

Udon Thani ○

Lam Pao Res.



LAO PDR

Disaster Management Reference Handbook

November 2017

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Welcome - Note from the Director

The U.S. supports the Association of Southeast Asian Nations (ASEAN) member states and other stakeholders to advance peace, prosperity, and stability in the Indo-Asia-Pacific Region. Regional security is enhanced by deepening partnerships with ASEAN countries like Laos, or Lao People's Democratic Republic (PDR). The U.S. is a supporter of a strong ASEAN. The U.S. worked with the government of Lao PDR in preparation for the country's ASEAN chairmanship in 2016. The U.S. provided workshops on policy and summit logistics, and English language training for Lao officials who worked on ASEAN meetings.¹

The U.S. and Lao have had a difficulty history; however, the two nations meet annually for bilateral dialogues regarding U.S. commitment to help Lao remove unexploded ordnance (UXO), economic growth, and development assistance programs.² Relations between Lao and the U.S. include cooperation on a range of issues including health, child nutrition, environmental sustainability, trade liberalization, English language training, counter-narcotics, and the Lower Mekong Initiative (LMI). Both nations are interested in supporting a stronger Mekong sub-region. The U.S. and Lao and have participated together in the LMI Disaster Response Exercise and Exchange (DREE) along with counterparts from Cambodia, Myanmar, Thailand, and Vietnam. The disaster exercise is an example of a multi-national collaboration effort to better prepare for natural disasters in the Indo-Asia-Pacific region.³

This Lao PDR Disaster Management Reference Handbook offers readers an operational understanding of the nation's disaster management capability and vulnerability, with detailed information on demographics, hazards, government structure, regional and international assistance, infrastructure, laws and guidelines, risks and vulnerabilities, and other areas vital to a comprehensive disaster management knowledge base.



Sincerely,

A handwritten signature in black ink, appearing to read "Joseph D. Martin".

Joseph D. Martin, SES
Director

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

Overview

CFE-DM is a U.S. DOD organization that was established by U.S. Congress in 1994. The Center is a direct reporting unit to U.S. Pacific Command and is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii.

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 civil-military coordination in the response could have been more effective. He set about to establish CFE-DM to help bridge understanding between civil and military responders, and to provide a DOD platform for building Disaster Management and Humanitarian Assistance (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.

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.

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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 relevant data.

Conditions such as poverty, water and sanitation, vulnerable groups, 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 agencies, international NGOs, major local NGOs, and key U.S. agencies and programs in the country, are also provided.

The overall aim is to offer 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, United Nation sources, NGO websites, scholarly references, foreign government websites, and various media sources. When available, 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 (<https://www.cfe-dmha.org>) to view the latest electronic versions available or to request a hard copy of a disaster management reference handbook.

Disclaimer

This report has been prepared in good faith based primarily on information gathered from open-source material available at the date of publication. Most of the information used was from United States (U.S.) or other government sources and is therefore considered to be in the public domain. Such sources include the Central Intelligence Agency (CIA) Fact Book, U.S. Department of State (DOS), and foreign government's web pages. Where possible, a link to the original electronic source is provided in the endnote (reference) section at the end of the document. Other sources used include Non-Governmental Organization (NGO) home pages, Relief Web, United Nations Development Program (UNDP), United Nations Office for the Coordination of Humanitarian Affairs (OCHA), World Bank, and Asian Development Bank (ADB). While making every attempt to ensure the information is relevant and accurate, Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) does not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication.

Executive Summary

Lao People's Democratic Republic (Lao PDR), also referred to as Laos, or Lao, is exposed to natural disasters such as flooding, typhoons, cyclones, drought, and earthquakes. The country is vulnerable to recurrent, sudden-onset and slow onset natural disasters with flooding, storms and typhoons having a large effect on the population.⁴ The country remains highly vulnerable to agricultural shocks and natural disasters.⁵

Lao experienced one of its worst natural disasters in 2013 when five major monsoon storms hit the country in a period of three months. Estimated loss and damages from the disaster was US\$219 million, and approximately 347,000 people were affected as a result of the severe flooding. Approximately 1.2 million people were affected by flooding from 2008-2017. The intensity and frequency of natural disasters, especially flooding will likely increase due to climate change.⁶

The country's exposure to natural disasters can result in high economic costs and negative social consequences. The Government of Lao has acknowledged disaster risk reduction (DRR) as a national priority having referenced it in key strategic planning documents. It is important to build the capacity of local communities in order for them to be able to prepare for and respond effectively.⁷ Lao has established Community Based Disaster Risk Reduction (CBDRR) practices as a result of the many natural disasters the country faces. CBDRR is implemented at the village level to enhance community preparedness and to decrease village vulnerabilities to disasters.⁸

Lao established the National Disaster Management Committee (NDMC) as its national disaster management platform and the National Disaster Management Office (NDMO) to be responsible for DRM (Disaster Risk Management) and DRR activities in the country.⁹ They were both established in 1999 through the Prime Ministerial decree No 158.¹⁰ Lao has a National Strategic Plan for Disaster Risk Management¹¹ and a current Action Plan (2010-2020) which includes disaster management programs, training and preparedness.¹² The Draft National Disaster Management Plan 2012-2015 is based on the Hyogo Framework.¹³ The Ministry of Labor and Social Welfare (MoLSW) provides assistance to disaster victims in Lao.¹⁴

Lao does not have an effective early warning

system at the local level, which impedes disaster preparedness. In addition, the procedures to access emergency funds also remains a large challenge for both the government and the international community as there is no official process.¹⁵

The regional United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) office supports simulation exercises so that the international community and the government can come together to practice disaster preparedness. The country has made investments in infrastructure. The government is working with the World Bank to develop procedures on disaster risk reduction mainstreaming into public planning and decision making.¹⁶



LAO PDR

Country Overview

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Country Overview

Lao PDR, commonly referred to Laos, was formerly known as Kingdom of Lan Xang (the land of a million elephants). In the Lao spoken language, the country's name is Muang Lao. From 1904-1907 a series of treaties with Siam (Thailand) established the borders of Lao. The country is a former French colony. Lao was occupied by Japanese Forces until the end of the Second World War. The country became independent in 1954 as a constitutional monarchy. This independence created fighting between the royalist government and the armed wing of the communist Lao People's Party (under leadership of the Pathet Lao). The U.S. and Thailand supported the royalist government politically, financially, and militarily. North Vietnam supported the Lao People's Party under Pathet Lao. Fighting continued for two decades; this is referred to as the "secret war". The Vietnam War intensified in the mid-1960s and Lao was a supply route (Ho Chi Minh trail) and sanctuary for the North Vietnamese army and southern North Liberation Front (Viet Cong) guerrilla forces.

The U.S. began a bombing campaign in Lao in 1961 which lasted until 1975. The campaigns' mission was to bomb the Ho Chi Minh trail and other targets by dropping an estimated 2 million tons of bombs on the country. After years of fighting between the royalist government and the communist Lao People's Party, both sides agreed to form a coalition government, which came into power in 1974. Communist forces occupied Vientiane (the capital) in 1974-1975 and brought the royalist government down. In 1975, the monarchy was abolished. Since the abolishment, the country has been an authoritarian state that has been ruled by the Lao People's Revolutionary Party (LPDR). Lao was referred to

as Lao PDR after the monarchy was abolished and ruled by the LPDR.¹⁷

Lao is a small, land-locked nation covering an area of 230,800 km².¹⁸ The country is bordered by China to the north, Cambodia to the south, Vietnam to the east, Thailand to the west, and Myanmar to the northwest as seen in Figure 1.¹⁹

Culture

Lao has one of the most ethnically diverse populations in the world. The history and culture of the country is represented in temples and monuments. Culture in Lao follows the Buddhist belief of reincarnation and an accepting peaceful perspective. Photo 1 is a picture of a stupa or mound-like structure containing Buddhist relics.²⁰ It is located in Vientiane and named That Dam, which translates to "the black stupa". It is one of the oldest Buddhist monuments in Vientiane. The legend behind the monument holds that a seven-headed dragon lives underneath the stupa and protects the city.²¹



Figure 1: Lao PDR Location Map



Photo 1: Buddhist Monument in Lao PDR

The national symbol of Lao is called the Pha That Luang, or the Great Stupa in Vientiane. The monument was built in the 16th century on the ruins of a 13th century Khmer temple, which in turn was built on the ruins of a 3rd century Indian temple built by Buddhist missionaries. The stupa is said to contain a relic of the Buddha.²² The architecture of the building includes many references to Lao culture and identity, and so has become a symbol of Lao nationalism. Photo 2 captures an image of the temple.²³



Photo 2: Cultural Temple in Vientiane, Lao PDR

Demographics

Ethnic Makeup

According to the latest Census (2015), the Lao ethnic group accounted for 53 percent of the population, followed by Khamu (11 percent), Hmong (9 percent) and other ethnic groups (27 percent).²⁴ Different cultures have different knowledge and practices of disaster hazards and reduction.²⁵

Key Population Centers

Lao has a total population of 7 million.²⁶ The population density is 27 people per square kilometer. Vientiane Capital has the highest population density of 209 people per square kilometer, or approximately eight times the national average. The nation's population is relatively young, with 32 percent of the population aged 0-14 years. The population of 15-64 years accounted for 64 percent, and only four percent of the total population is 65 years and above. Almost everyone living in Lao (99 percent) are Lao citizens.²⁷

In terms of population, the country lives in the lowlands and uplands. The Lao Loum lives in the relatively densely populated lowlands on the eastern bank of the Mekong River. The Lao Theung lives in the lower mountain ranges in the south. Ethnic minority groups live in the higher mountain areas.²⁸

However, more residents are moving to the city center. The proportion of urban population increased by approximately 6 percent in the past 10 years, from 27 percent in 2005 to 33 percent in 2015. Despite this, the majority of the population still lives in rural areas (67 percent of the population). Approximately 8 percent of that population is without road access.²⁹

Language

Lao is the official language. Other languages include Khmu, Vietnamese, Chinese, Hmong, Mien, and approximately sixty minority languages.³⁰

Religion

In Lao, Buddhism is the predominant faith practiced. According to the latest Census (2015), 65 percent of the populations are Buddhist, while Christians make up nearly 2 percent of the population. Thirty-two percent reported as having no religion or being animist.³¹

Vulnerable Groups

In recent years, Lao has experienced high levels of economic growth and since the 1990s the incidence of poverty has been reduced. However, there are a number of important vulnerable groups.³² Certain groups including the poor, children, women, and the disabled are part of the vulnerable population, which are highly vulnerable to natural disasters and seasonal fluctuations in weather.³³

The Poor

The poor living in remote rural areas remain highly vulnerable to seasonal fluctuations and natural disasters. Households in urban areas are also affected including the poor and near-poor as they are vulnerable to future increases in food prices if they are not able to earn real wages. The poor also includes many ethnic minority groups.³⁴ In Lao, 23.2 percent of the population lives below the poverty line.³⁵

Children

Children are especially vulnerable due to undernutrition levels in Lao remaining among the highest in the world. This is despite rapid economic growth and a significant decline in poverty in recent years. The causes of undernutrition in Lao are from a range of factors such as mother's stature, education, healthcare, diet and age during pregnancy, as well as factors affecting the child after birth, like inadequate breastfeeding as well as low nutrient intake due to low dietary diversity, poor hygiene and sanitary environment. Many rural households do not have access to diversity in diet, consuming an average of 3 out of 9 major food groups. However, when healthy foods are available, children under two are not fed the vitamin-enriched foods. Most factors are influenced by lack of knowledge. Many parts of Lao still have open defecation. Chronic exposure to fecal bacteria results in anatomical changes to a child's small intestine which affects the ability to both absorb and utilize nutrients. Estimates show that the probability of stunting among 6-23 months old children is higher when village largely practices open defecation.³⁶

Disabled

The overall prevalence of disabilities is 2.8 percent in the country (among the population 5 years and over). The prevalence is 2.5 percent in urban areas, 2.9 percent in rural areas and 3.3 percent in rural areas without roads.³⁷

Women

Lao ranks 57th of 145 countries in the Global Gender Gap Index 2015. Women do not hold many leadership positions in Lao. It is estimated that only three percent of village heads are women, and village committees often have only one woman member. Gender inequalities for women are reflected in the adult literacy rate as women rate less than men. This is also magnified in remote ethnic communities.³⁸

Economics

Lao is becoming a middle-income status country. The country has strong economic growth, and has reduced poverty.³⁹ Average Gross Domestic Product (GDP) growth was at 7.5 percent in 2016.⁴⁰ However, 20 percent of the population consumes less than the minimum dietary requirements and the country is behind on stunting reduction.⁴¹

Despite economic growth in the ten years driven by the hydropower and mining sector, very few jobs were created. The majority of the Lao workforce is in the agriculture sector. One of the main structural weaknesses facing the development of the private sector is the lack of skilled labor. Having the highest illiteracy rate in the region, and lack of education puts them in a disadvantage.⁴²

Lao faces economic trading challenges due to its landlocked location. There are also policy issues managing the gradual opening of the economy to foreign investment.⁴³

The Lao government is interested in attracting foreign investment and increasing regional trade flows. In 1987, Lao opened its economy to foreign trade. In 1997, Lao joined the ASEAN Free Trade Agreement (AFTA) and in 2013, it acceded to the World Trade Organization (WTO).⁴⁴

The mining and energy sectors will drive growth in the medium-to-long term. The Nam Theun II hydropower plant is estimated to have generated annual revenues of \$US 13 million in year one of operation, and it is expected to reach \$US 150 million by 2033. Lao would only need a fraction of the energy produced and therefore would export to Thailand and Vietnam.⁴⁵

The country's Seventh National Plan wants to maintain robust economic growth and alleviate poverty in order to graduate from the list of Least Developed Countries (LDC) by 2020. This plan looks toward achieving sustainable economic growth by improving public infrastructure

and broadening the economic base, while ensuring natural resource and environmental preservation.⁴⁶

Lao produces and exports opium. The value of opium produced in Lao and Burma is estimated at US\$431 million. The number of people growing opium in Lao has risen to around 38,000 households. Myanmar remains Southeast Asia's top opium producer and together, Myanmar and Lao manufactured between 731 metric tons and 823 metric tons of opium. The equivalent of roughly 73.1 metric tons to 82.3 metric tons of street-quality heroin for regional and international drug markets. In Lao, cultivation is found in the seven northern provinces of Phongsali, Houaphan, Louang Namtha, Louangphrabang, Oudomxai, Bokeo and Xiangkhoang.⁴⁷

The Golden Triangle (where Lao, Burma and Thailand meet) is one of Asia's main opium producing areas. Oudomxay province is at the regional crossroads of the Lao opium trade; it is hours by road to China, Thailand, Vietnam, and Burma. Farmers in Lao are moving to more remote land to avoid having their crops destroyed by the authorities. Opium eradication programs were successful until 2006 when the country declared they were free of the practice. In 1998, around 27,000 hectares (66,718 acres) of opium poppy were growing in Lao, which was reduced in 2006 to 1,500 hectares (3,706 acres). In 2012, opium poppy cultivation in Lao rose to 6,800 hectares (16,803 acres) and production grew 66 percent. The Opium poppy cultivation

in the Golden Triangle stabilized in 2015 at 5,700 hectares (14,085 acres) in Lao, according to the Southeast Asia Opium Survey 2015 released by the United Nations Office on Drugs and Crime (UNODC).⁴⁸

Photo 3 depicts the Golden Triangle.⁴⁹ To the left is Burma, the right is Lao. The photo was taken from Thailand.

Government

Political Outlook

The political environment in Lao is relatively stable. The government is a one-party state, which is led by the Lao People's Revolutionary Party (LPRP). Lao has been ruled by the LPRP since 1975. As a traditional communist state, Lao's top decision-making body is the LPRP's Politburo and the military holds a prominent function in politics. The LPRP provides Lao with government stability and leadership; however some policy issues exist. The main policy issues are the administration of the opening of the economy to foreign investment beyond China and ASEAN to the United States, the European Union, Japan, and South Korea, and advancing transportation connections, due to its landlocked position, which will allow Lao to trade effectually with other nations. Continual examinations of laws and investment policies in Lao emphasize the ongoing corruption and expropriation risks, which are present in Lao.

The Party Congress is held every five years, which elects a new Politburo. The 10th



Photo 3: Golden Triangle

LPRP Congress concluded in January 2016, electing Bounnhang Vorachith as the new party Secretary-General. The LPRP leader also becomes the country's president. Lao's current president is Vorachith, effective in April 2016 through election by the 149-member legislature and the National Assembly (NA). The NA also elected Thongloun Sisoulith, the second-ranked politburo member, as prime minister in April 2016. Sisoulith runs the government while Vorachith is primarily concerned with heading the LPRP. Internal LPRP factions divide according to whether they lean more towards China or Vietnam. The current LPRP leadership is from the "Vietnam" faction; thus, ties with Vietnam are likely to gain prominence. Regardless of which faction is in power it only results in marginal effects on the relations with China and Vietnam. Both China and Vietnam are significant economic neighbors. The LPRP's and the government's collective policy is to enhance relations with all adjacent countries because Lao, due to its landlocked geographic location, requires strong transport relations with its bordering countries for trade and foreign investment functions. Political opposition inside the country is not a concern in Lao. There are not any indications of discontent within Lao beyond low-key disapproval of the government over matters such as corruption and environmental degradation.

The LPRP exercises democratic centralism, demanding the undisputed support of party leaders in all resolutions. Policy is established and executed by the LPRP Politburo. The party has a membership roll of approximately three percent of the populace. Membership is largely restricted to those who the party deems supportive of its own interests rather than any strong ideological attachments, and now increasingly comprises those seeking influence or patronage - often with career or business contexts. Efforts at political reform have been thwarted by party cadres unwilling to share their power and authority with a wider constituency. Nationalism, rather than communism, is now the main ideological issue, increasingly tested between factions that seek support from and offer concessions to economically or politically powerful neighbors, such as China, Thailand, and Vietnam.

Lao does not uphold a separation of power. The LPRP is the guiding political force in country and all political institutions fall under the LPRP, with executive authority upheld by the eleven-member Politburo and the Central

Committee, which is made up of 77 members. The Prime Minister of Lao oversees the day-to-day directing of the government and the Council of Ministers serves as the cabinet. The Permanent Secretariat executes principal coordinating tasks, and supplementary government branches are comprised of the Office of the Prime Minister, the Central Bank, and the Foreign Investment Management Cabinet (FIMC). The LPRP governs policy within the Politburo and Central Committee; however significant policy resolutions may enlist the actions of the Council of Ministers.⁵⁰

In addition to the LPRP, the only legally permitted political entities are:

- Lao Front for National Construction (LFNC), LPRP's mass organization;
- Lao Women's Union (LWU);
- Lao People's Revolutionary Youth Union (LPRYU); and
- Lao Federation of Trade Unions (LFTU).

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 Lao's disaster hazards and affect potential response operations.

Geography

Lao is a noncoastal country. The country's population is distributed among the heavily inhabited lowlands on the eastern bank of the Mekong River, and the less inhabited mountainous uplands. The northern regions of Lao consist of high mountains and are predominately inhabited by ethnic minority groups. The highest mountain Phou Bia, peaks at 2,817 meters (9242 feet) and is located in the Xieng Khouang province. The southern regions of Lao are made up of lower mountain ranges and are populated by the Lao Theung. The Annamite Chain, a watershed that divides Lao and Vietnam, includes three large, high plateaus elevating 1,000 meters (3280 feet) above sea level. The Mekong River extends along the border of Lao and Burma (Myanmar). Elevations along the Mekong River valley vary between 70 and 300 meters (229 to 984 feet).⁵¹ Photo 4 depicts the Mekong River in Luang Phrabang, Lao.⁵²



Photo 4: Mekong River

Borders

Lao borders Vietnam, Thailand, Cambodia, China and Myanmar. The border between Lao and Myanmar is formed by the Mekong River. The border with Thailand is also marked by the Mekong River, except in southern Sayaboury province and the Hongsa-Xienghoun special region in the north and in Champasak in the south. The border with the Chinese province of Yunnan is mountainous, as is the border with Vietnam. The provinces across the land border with Cambodia are sparsely populated regions.⁵³ Figure 2 depicts a map of Lao's borders.⁵⁴

Climate

Lao is considered as one of the most vulnerable countries in Southeast Asia to future climate change impacts, especially in the form of droughts and floods causing landslides, river bank erosion and reduced food security.⁵⁵ The climate varies across the country. Winters in



Figure 2: Borders, Lao PDR

the northern regions are cool, with temperatures reaching 15°C (59°F). However, temperatures increase to more than 30°C (86°F) during the hot season. The highlands and mountainous regions are typically cooler.⁵⁶

Over the last 30 years, Lao has experienced recurrent natural disasters, including floods, storms, droughts, and rodents, in part as a result of climate change. Historical records indicate that Lao faces serious floods and droughts every one and a half years. This pattern has continued in the recent past. The Mekong River extends for 1,900 kilometers (1,180 miles) in Lao and there are numerous waterways in the mountains, which contributed to serious flooding. Environmental degradation combined with rising climate variability has resulted in increasing natural disasters. The high dependence of most rural people on agriculture and surrounding natural resources, together with continued gaps in adaptation to changing climatic conditions, make the country highly vulnerable to the effects of climate change.⁵⁷

Climate Change

Climate change in Lao is a major concern. Global warming is a considerable issue; in Lao it is mainly agricultural activities and deforestation, which contribute to global warming. Scientists have predicted that temperatures will continue to increase and that dry seasons will be prolonged overtime in Lao as a direct effect of global warming and climate change. Additionally, it is predicted that increased precipitation levels, severe storms, prolonged droughts and extreme flood events will become more severe and frequent in Lao. Precipitation will become more unpredictable and natural disasters and emergency situations such as droughts or floods will become more severe.⁵⁸

Lao depends heavily on natural resources for its infrastructure and economic development. The outcomes of climate change have significant effects on the livelihoods and living environments for the rural populations in Lao. Reoccurring floods and severe storms destroy infrastructure eroding roads, damaging structures, and disrupting electricity supply. Additionally, floods and droughts result in increased crop failure, a reduction in the supply of drinking and irrigation water, an increase in the prevalence and transmissions of waterborne diseases, and infectious diseases such as malaria and dengue fever.⁵⁹

Climate change also affects economic growth

in Lao as the manufacturing sectors rely on natural resources for mining, hydropower and wood processing. Likewise, agriculture, animal farming, forestry, and fisheries depend on useable land, suitable temperatures and precipitation. Water scarcity and groundwater depletion lead to decreased agricultural production causing food insecurity and a rise of national poverty as the majority of Lao inhabitants depend on agriculture for their economic survival.⁶⁰

National mitigation measures and activities regarding climate change will aid Lao in minimizing the adverse effects of climate change. The Climate Change and Disaster Law are being developed and the overarching legal framework for climate change and disaster management is provided in the law. The law is expected to be approved in 2017. The National Strategy on Climate Change (NSCC) of Lao was approved in early 2010, and states a vision on how to address climate change. In addition to the overarching strategy set out in the NCCS, climate change action plans for the period 2013-2020 define mitigation and adaptation actions in the sectors of agriculture, forestry, land use change, water resources, energy, transportation, industry, and public health.⁶¹



LAO PDR Disaster Overview

Disaster Management Reference Handbook | November 2017

Disaster Overview

Hazards

Lao is vulnerable to a wide range of natural disasters. Flooding, flash floods, severe storms, monsoons, and landslides are prevalent in the country. Additionally, Lao is susceptible to droughts, earthquakes, and epidemics with varying degrees of impact and severity in different regions. When the impacts of natural disasters are combined with vulnerable populations it results in increased economic loss and presents far reaching social and economic effects throughout the nation. Extreme flooding events as a result of severe storms are the most prevalent and destructive natural hazards in Lao. Floods, droughts and landslides result in mass destruction of crops which affect the livelihoods of rural farmers. Natural disasters impact vulnerable populations residing in hazard prone areas, particularly those affected by poverty. Natural disasters in Lao have caused severe damage to infrastructure, homes, irrigation systems, bridges, roads, and agricultural land.⁶²

Floods

The tropical monsoon climate in Lao has two distinct seasons, wet and dry. Flood events are common in Lao. Flooding occurs from August to September, predominately in the central and southern provinces of the country, following the southwest monsoon season. However, approximately 75 percent of Lao's annual rainfall takes place between the months of May to October. Floods and droughts are the primary hazards in Lao, but historically extreme floods have occurred more frequently.

The annual rainfall can be quite variable in different parts of Lao. Economic impacts affect large portions of the population as the largest portion of the population live in rural areas, which are dependent on agriculture and are prone to periodic flooding. In Lao, there are six primary flood prone regions. Five of the flood prone regions exist along the Mekong River plain and one exists along the Sekong Basin. The most vulnerable regions to flooding are the Vietiane plain, Borikhamxay province, Sebang fay plain, Sebang hieng basin, Champsak province and the Sekong in Attapeu province.

Since the mid 1960's Lao has experience 25 floods ranging in magnitude, economic loss, and

mortality rates. Flash floods and heavy monsoon rains in 2013 killed twenty people and damaged many roads and crops. The rains affected hundreds of thousands of people throughout the country and left them without clean water and damage to their rice fields. Approximately 50 percent of crop production was lost. The most recent major flood event in 2016 in the northern provinces of Lao affected over 19,000 people and was responsible for at least five deaths.⁶³

Photo 5 depicts a flooded restaurant on the Nam Khan, Luang Prabang.⁶⁴



Photo 5: Flooded Restaurant

Drought

Lao is vulnerable to prolonged droughts. Variations in the levels of seasonal precipitation affect the conditions, when rainfall is minimal, less than 2.0 mm rainfall annually, drought conditions are exasperated and drought sensitive areas are heavily affected. The economic effects of severe drought conditions are far reaching. Lao experienced two considerable droughts in 2003 to 2007. In 2003, extreme drought conditions in the norther and central regions of Lao resulted in US\$ 16,500,000 in damages. The 2007 drought in the central region of Lao cost approximately US\$ 1 million in damages.

Lao is deeply impacted by extended drought conditions. Droughts have impacts on agriculture, food security, and access to clean water, transport of goods and persons, and economic development is affected. Persons of low economic status or those living in poverty are the most vulnerable populations. The Government of Lao, through the National Centre for Environmental Health and Water Supply, has begun warning at-risk populations to minimize the effects of drought through reducing water utilization throughout the dry season.⁶⁵

Landslides

Landslides impact access to rural areas in Lao. Road networks in Lao are disrupted by landslides. Weather conditions in Lao, predominately an increase in precipitation, result in landslides, which create slope failures in roadside cuttings and block road access. The greater part of landslides in Lao are caused by the effects of increases in groundwater as a result of prolonged wet season and in some instances landslides are associated with river bank erosion. The Government of Lao takes a reactive approach to landslides, which include clearance and repair, rather than a proactive approach, which would require slope improvements and pre-emptive measures. The majority of landslides result in partial or complete impasses to segments of roads. Landslides result economic losses, delays to traffic, restricted movement of transport, and further require debris removal, repairs to retaining walls, roadside drains, and the resurfacing of roads.⁶⁶

Recent History of Natural Disasters

Lao Floods – Aug 2017

Heavy rainfall in Lao between 25 July and 5 August resulted in flooding in several provinces, affecting human life, housing, agriculture and infrastructure. The most affected Provinces were Oudomxay, Bolikhamxay, Sekong, Attapeu, Saravane, Champasack, Xayyabuly, Vientiane and Khammoun. More than 100,000 people were affected and at least 4 people were reported dead.⁶⁷

South East Asia Flashfloods – Aug 2016

Heavy rain and flooding affected the northern provinces of Lao and Vietnam, where at least 6 people died as a result. AHA Centre reported that heavy rains from 11 to 12 August in Laos caused floods affecting 4,977 people in 22 villages in Xayabuly (Sainyabuli) and Louangphabang. Flooding was also reported in Oudomxay. The Lao's government mobilized resources and personnel to assist the affected population, according to AHA. Military and police rescue efforts were ongoing with priority given to evacuating people to the safer areas. Medical teams were mobilized to provide medical services for the communities. Relief items were deployed to the flood affected population.⁶⁸

Flashflood, flood and Landslide in Borkeo, Bolikhamxay provinces - Aug 2015

Continuous rains since early Aug triggered flooding in 118 villages in 12 districts in Houphan, Bolikhamxay, Khammoune and Luangnamtha provinces. The Ministry of Labour and Social Welfare reported over 47,800 people affected. No deaths were reported. National and local authorities led response efforts, including conducting assessments, road clearing and distribution of relief items.⁶⁹

Flashflood in Northern, Central and Southern Lao - Aug 2013

Unusually heavy monsoon rains, exacerbated by tropical storms, caused widespread flooding in more than 60 percent of Lao from late June through August. The monsoon rains continued, and the country endured almost continuous heavy rainfall for some ten weeks. The situation was also exacerbated by passing typhoons Jebi and Monghut, which brought further rainfall to the region. Over 350,000 people were affected by floods throughout the country. The floods also caused massive damage to transport, infrastructure, education and agriculture. Over 15,000 hectares of rice fields were damaged and thousands of livestock killed. Seven bridges and nearly 1,200 km of roads were damaged in addition to irrigation systems, latrines, wells and reservoirs. More than 60 schools were reported to be damaged, with the loss of equipment and books.⁷⁰

Major Storm Event Lao- 2013

In 2013, a series of five major storm events crossed the country resulting in severe flooding in 12 of the country's 17 provinces. According to a report to the National Assembly, approximately 350,000 people were affected, with 29 storm-related deaths and 77 reported injuries. Loss and damages were estimated at LAK 2.2 trillion (USD\$219 million).⁷¹

Flooding and Severe Weather in South East Asia - September 2013

Between June and July, seven provinces in the north and central areas were flooded after heavy rains swept across the country. Exacerbating the situation was the influence of Typhoons JEBI and Mongkhut that moved across northern in early August. Oudomxay, Bolikhamxay and Khammuan provinces were the worst affected provinces in terms of damage and loss. In Oudomxay, 17 people were killed on 20 August.

Over 9,600 people in 30 villages were affected by the consequent flooding and landslides. Nearly 60 houses were destroyed and another 100 houses damaged. Additionally, four southern provinces, Champasak, Salavan, Attapeu and Xekongwew, flooded by heavy rainfall from a tropical depression that passed through the area late last week from southern China. Three persons were killed in Champasak, which was the worst hit province. Nearly 21,000 households were affected in the four provinces. The Government of Lao took the lead in flood response and assessed the impacts and needs of the affected population. Humanitarian agencies including UNICEF, WHO, Care International, Oxfam and World Vision, who have a presence in the field, provided support to the local authorities.⁷²

Lao Dengue Outbreak - Aug 2013

As of 14 Jun 2013, more than 10,000 cases of dengue and 40 deaths had been recorded in Lao. This is seven times more than the number of cases reported for the same period in 2012. By 9 Aug, the numbers had increased to almost 35,000 cases and 81 deaths, but while the number of cases reported remained above the epidemic alert level, the weekly trend had started to decrease. On 20 Aug, the Central Emergency Response Fund allocated \$753,504 to the World Health Organization (WHO) to reach more than 4.7 million people in the 11 provinces with the highest incidence of dengue. By 1 Nov, the weekly trend had continued to decrease. From 26 Oct-1 Nov, 146 cases were reported with one death, compared to 308 cases in the same period for 2012. A total of 43,620 cases and 95 mortalities were reported up to 1 Nov 2013.⁷³

Lao Tropical Storms Haima (June) and Nok-Ten (August) 2011

Both storms hit central Lao with devastating effects. TS Haima caused widespread flooding in 12 provinces, affected 429,954 people (Women 218,154 persons), 82,493 households, 1,790 villages, 96 districts and 42 persons perished. The flood also severely damaged houses and infrastructures, costing a 1.8 billion Kips (US\$174 million) (NDMO 2013).⁷⁴

Country Risks

Deforestation

Lao's illegal logging is a serious national concern when added to the effects of extensive natural forest losses due to large-scale forests land

transformations to agriculture lands, industrial tree plantations, mining, inundation areas of hydropower dams and other infrastructure developments. In many regions, significant increases in the amount of coffee, rubber and industrial tree plantations have resulted in the destruction and loss of large areas of natural forests. Lao exports the majority of its timber to its neighbors, predominately China and Vietnam. Severe degradation is also an effect due to lower productivity in natural forests and diminished environmental functions.

Photo 6 depicts "slash-and-burn" deforestation in Lao. This technique is not sustainable in large populations, because without the trees, the soil quality becomes too low to support crops.⁷⁵



Photo 6: Slash-and-Burn Deforestation, Lao PDR

The misuse of natural forests over the past few decades in Lao has resulted in degradation of natural resources and has affected the livelihoods of rural communities who are dependent upon these resources. Recurring unrestricted logging practices and illegal timber mining have shifted cultivation, caused degradation and fragmentation of adjacent forests, further reducing available natural resources. The impacts of natural forest degradation have resulted in economic loss, ecological and socio-cultural functions of natural forest have resulted in significant negative impacts on the rural poor. Diminishing resource production, loss of biodiversity and destruction of environmental functions has also increased conflicts over the remaining forest.⁷⁶

Unexploded Ordnance (UXO)

Lao is, per total population, the most heavily bombed country in the world. Roughly, 25 percent of Laos' villages are contaminated with

unexploded ordnance (UXO). During the Second Indochina War (1964-1973) an estimated 580,000 bombing operations and ground engagements, resulted in more than two million tons of ordnance being released on Lao. Estimates suggest there are nearly 80 million failed cluster munitions which remain as live ordnance and are buried in Lao as a result of the war. The UXO continues to contaminate vast areas of Lao; hazardedly buried in the landscape and pose significant danger to the residents of Lao.

Lao, along with considerable investments from the international community, has made significant progression in human and institutional capacity within the UXO sector; however, UXO in country continues to be a substantial concern. In spite of ongoing removal of UXO from contaminated land, injuries and deaths related to UXO continue to remain a growing interest. Leftover cluster bombs in country continue to pose the biggest threat to the rural economy and loss of life. Cluster bombs account for approximately 50 percent of the category of UXO located and cleared in Lao. Additionally, in the past decade cluster bombs have been responsible for roughly 30 percent of all UXO related accidents. The UXO issues in Lao restrict socio-economic development, foreign development, agriculture productivity, infrastructure development, and international investments.⁷⁷ The U.S. has provided approximately \$100 million in the last 20 years on UXO removal and in 2016 pledged to spend an additional \$90 million over a 3-year period.⁷⁸ Photo 7 depicts a bomb-cratered landscape in Lao.⁷⁹



Photo 7: Bomb Cratered Landscape

Locust Outbreak

Lao experienced thousands of crops (corn, job-tear, and upland rice) destroyed in the Northern provinces due to the yellow-spined bamboo locust outbreaks in the country. The Food and Agricultural Organization of the United Nations (FAO) supported the

development of capability to respond to the major outbreak that began in 2014.⁸⁰

Country Risk Profile

It is important to look at disasters in terms of how frequent countries are faced with hazards; the effect on the population in terms of death or request for international assistance; and in terms of how the disaster affects the country financially. Figure 3 reflects internationally reported losses in terms of mortality, and economics for Lao spanning from 1990-2014. The research is from the EM-DAT International Disaster Database. For a disaster to be entered into the database at least one of the following criteria must be fulfilled; ten (10) or more people reported killed; a hundred (100) or more people reported affected; a declaration of a state of emergency is made; or a call for international assistance is requested. From the frequency circle graph, floods are the most frequently occurring hazard (72 percent). From the mortality circle graph on the left, floods cause the most deaths (63 percent). Floods also cost the most economic destruction (60.9 percent) as seen on the economic circle graph on the right.⁸¹

The exposure of hazards in a country, how vulnerable the country is, as well as the coping capacity of a country are important factors in Disaster Risk Management. Figure 4 shows INFORM's (Index for Risk Management) risk profile for Lao PDR. INFORM is a global, objective, and transparent tool for understanding the risk of humanitarian crises. INFORM is a composite indicator, developed by the Joint Research Center, combining 53 indicators into three dimensions of risk: hazards (events that could occur) and exposure to them, vulnerability (the susceptibility of communities to those hazards) and the lack of coping capacity (lack of resources that can alleviate the impact). The index results are published once every year. They give each country an overall risk score of 1-10 (1 being the lowest and 10 the highest) for each of the dimensions, categories, and components of risk. The higher the score the more vulnerable a country is. The purpose of INFORM is to provide an open, transparent, consensus-based methodology for analyzing crisis risk at global, regional or national level. Lao has a 2017 Hazard and Exposure risk of 4.7/10; a Vulnerability score of 4.0/10; and a Lack of Coping Capacity score of 6.3/10. Physical exposure to floods rates the highest.⁸²

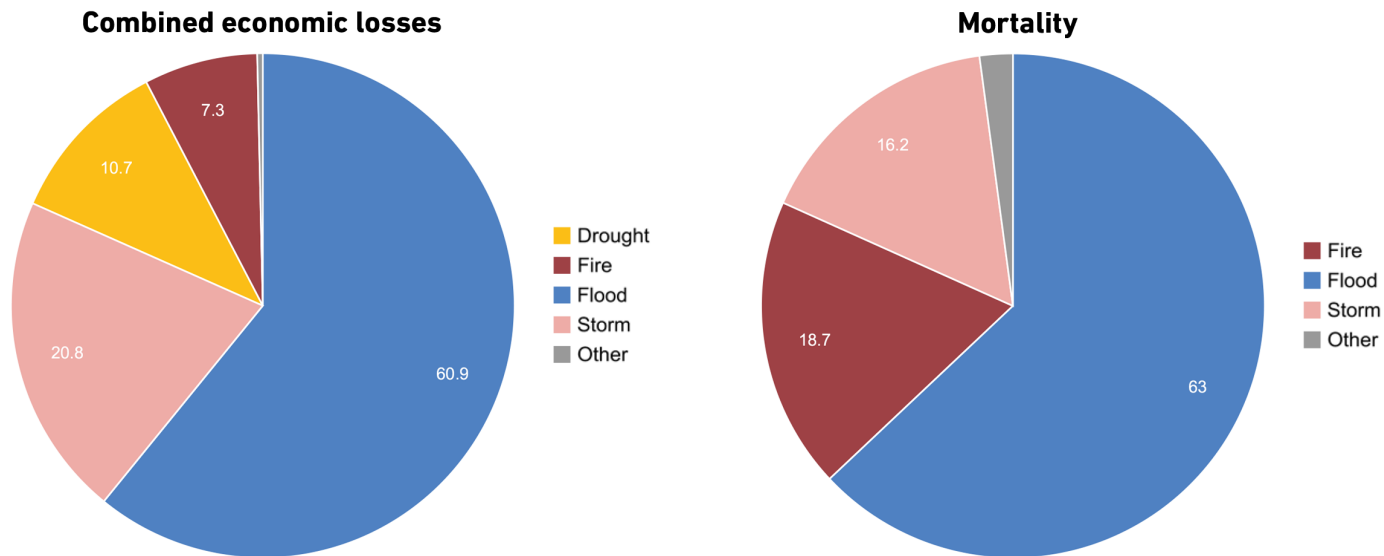
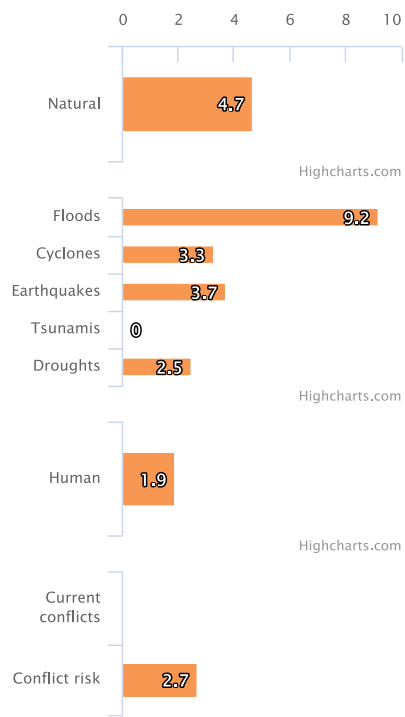
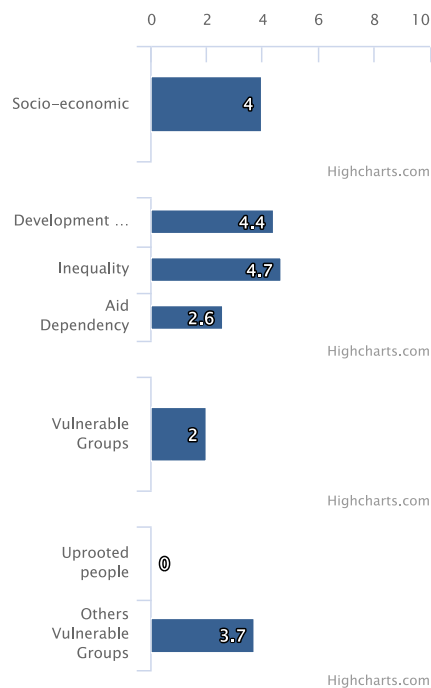


Figure 3: Lao Disaster & Risk Profile (EM-DAT)

Hazard & Exposure



Vulnerability



Lack of Coping Capacity

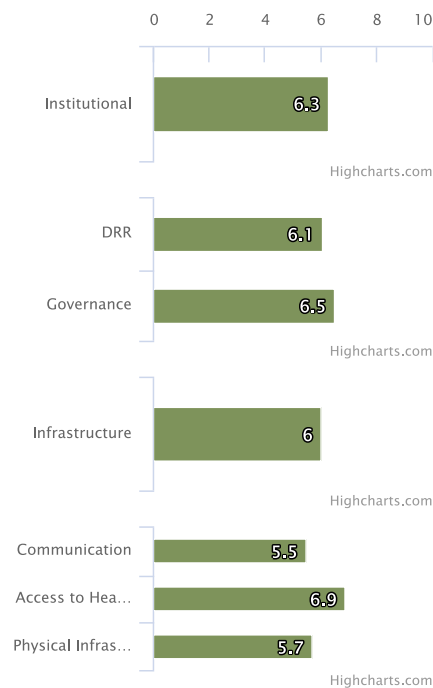


Figure 4: INFORM's Country Risk Profile for Lao



LAO PDR Organizational Structure

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Organizational Structure for Disaster Management

Since 1975, when Lao was founded, the policies related to disaster management have mainly focused on providing emergency relief to meet basic needs, such as food, water, and shelter. As a result of Lao being so focused on basic needs, the country is less focused on prevention and mitigation. The creation of the National Disaster Management Committee (NDMC) through the Prime Minister Decree No. 158 (23 August 1999) was a significant

breakthrough for disaster management. The NDMC provides recommendations and advice to the Prime Minister and plays the lead role in ensuring effective coordination related to all interventions in the disaster cycle, including mitigation, prevention, preparedness, response and recovery, while applying a multi-hazard approach. This recognizes the importance of sustainable development and DRR. It also focuses on addressing disaster risks, improving preparedness through community based disaster risk management, enhancing coordination between communities, and government at different levels and strengthening community resilience and self-help mechanisms. Part of the NDMC responsibilities includes the oversight of the mainstreaming and integration of disaster management issues into sectoral development plans.⁸³

Figure 5 depicts the Lao Disaster Risk Management Institutional Arrangement.⁸⁴

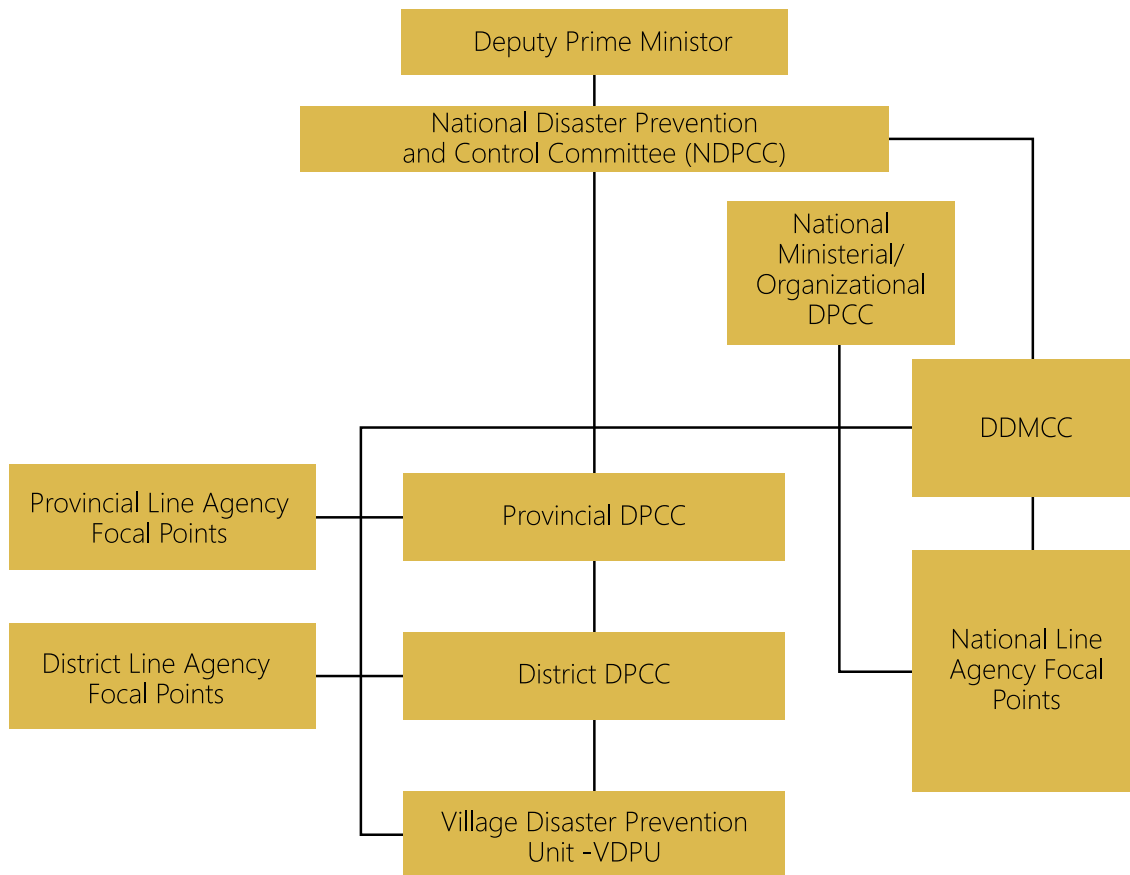


Figure 5: Lao Disaster Risk Management Institutional Arrangement

Lead Government Agencies in Disaster Response

National Disaster Prevention and Control Committee (NDPCC)

The committee is chaired by Vice Prime Minister and Ministry of National Defense. Representatives from several ministries and the Lao Red Cross are also committee members. The NDPCC has a mandate to define the DRM strategy and provide mechanisms on DRM, facilitate international support, and co-operation such as joint-rapid assessment, incident reporting, and identification of national DRR strategy as well as taking the lead on the implementation of DRM/CBDRM in the country.⁸⁵

Provincial Disaster Prevention and Control Committee (PDPCC)

The PDPCC is chaired by the Vice Provincial Governor and all provincial departments; it includes Provincial Red Cross organizations, which are members of the committee. It has a mandate to look after disaster risk management within the province and districts, and coordinate national and international support.⁸⁶

District Disaster Prevention and Control Committee (DDPCC)

DDPCC is chaired by the District Governor or Vice District Governor. All district offices of all sectors are the members of the committee. It works closely with villages and province through PDPCC structure, and takes lead in implementation of CBDRR activities and projects. It also cooperates with NGOs to support CBDRR projects at the village level.⁸⁷

Village Disaster Prevention Units (VDPU)/ Village Disaster Prevention and Control Committee (VDPCC)

The VDPU and VDPCC are chaired by the Village Head or identified persons agreed in the village. Its members are representatives of village military, security, mass organization, school, health volunteers, etc. It takes the lead in implementation of village CBDRR planning and trains communities on what to do before, during, and after disaster events.⁸⁸

Department of Disaster Management and Climate Change (DDMCC)

The DDMCC is the national secretariat for NDPCC and takes the key role in overall data gathering and assessment in cooperation with relevant data collectors for reporting to the NDPCC on timely basis for its decision, supervision and action. The DDMCC is currently working to operationalize and institutionalize disaster data and information management systems. Current projects strengthen these systems, including strengthening the Disaster Losses Database project completed in 2011, by transferring the software to DDMCC and training staff.⁸⁹ The law on DRM is drafted by DDMCC. DDMCC is the department that approves projects from provinces and districts in regards to disasters and climate change.⁹⁰

Note: The Department of Disaster Management and Climate Change (DDMCC) was reorganized into the Department of Climate Change (DCC) in August 2017.⁹¹ The Ministry of Labor and Social Welfare (MoLSW) provides assistance to disaster victims in Lao.⁹²

Organizations in Lao

International NGOs

Many non-governmental organizations can be found in Lao. Table 1 shows International NGOs working in Lao.

	<p>The Asian Development Bank was conceived in the early 1960s as a financial institution that would be Asian in character and foster economic growth and cooperation in one of the poorest regions in the world. ADB assists its members, and partners, by providing loans, technical assistance, grants, and equity investments to promote social and economic development. ADB is composed of 67 members, 48 of which are from the Asia and Pacific region.⁹³ https://www.adb.org/countries/lao-pdr/main</p>
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Table 1: International NGOs Working in Lao



 <p>The Asia Foundation</p>	<p>The Asia Foundation is a non-profit, non-governmental organization committed to the development of a peaceful prosperous, just, and open Asia-Pacific region. Drawing on nearly 60 years of experience in Asia, the Foundation collaborates with private and public partners to support leadership and institutional development, exchanges and policy research. www.asiafoundation.org⁹⁴</p>
	<p>United Nations Development Programme Lao country site for the United Nations Development Programme. Includes a wealth of information covering almost every aspect of development in the Lao. http://www.undplao.org⁹⁵</p>
 <p>IUCN The World Conservation Union</p>	<p>The IUCN aims to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. http://www.iucn.org⁹⁶</p>
	<p>The Wildlife Conservation Society saves wildlife and wild lands through careful science, international conservation, education, as well as from the Environmental and Social Management Plan (ESMP) - the original study prepared by the International Union for the Conservation of Nature (IUCN) for the watershed and Nakai-Nam Theun NBCA. http://wcs.org/sw-around_the_globe/Asia/laos⁹⁷</p>
	<p>The Education for Development Fund (EDF-Lao) was founded and began operations in 1997 with the aim of providing educational opportunities to local underprivileged children in Lao. http://www.edflao.org⁹⁸</p>
	<p>In 2000, Village Focus International (VFI) became the first international organization to be founded in Lao, and began working in Cambodia in 2003. http://www.villagefocus.org⁹⁹</p>
	<p>The Japan International Cooperation Agency (JICA) is advancing its activities around the pillars of a field-oriented approach, human security, and enhanced effectiveness, efficiency, and speed and other stakeholders in the Lao. http://www.jica.go.jp/english/about/¹⁰⁰</p>
	<p>Founded in 1969, Inter Environment Institute is an independent. Nonprofit, nonpartisan public policy institute. Their main focus is on natural resources and the environment, both internationally and in the United States, particularly in California. http://www.interenvironment.org¹⁰¹</p>
	<p>Canadian International Development Agency (CIDA) supports the social and economic development programs of its developing-country partners based on their needs and priorities. http://www.acdi-cida.gc.ca¹⁰²</p>
	<p>Concern Worldwide is an international humanitarian organization dedicated to reducing suffering and ending extreme poverty. Since the beginning, over 40 years ago, their focus has been on improving the lives of the poorest people. http://www.concern.net¹⁰³</p>
	<p>World Wide Fund for Nature's (WWF) mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by: conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption. http://wwf.panda.org/¹⁰⁴</p>

Table 1: International NGOs Working in Lao (cont.)

UN Agencies in Lao

The United Nations has several specialized agencies in Lao, as well as different funds and programs that work with the World Bank and the Asian Development Bank to support Sustainable Development Goals and Lao's national development targets through sustainable and equitable socioeconomic development. Part of the mission of the UN Lao Country Team is to help fight poverty by ensuring a rights-based approach to development, supporting sustainable use of natural resources and preservation of cultural heritage, and promoting human rights, gender equality and good governance. Women, children, youth, and the most vulnerable populations tend to be the focus of the UN's assistance in Lao.¹⁰⁵ Figure 6 depicts the UN Agencies on Lao.¹⁰⁶



Figure 6: UN Agencies in Lao

U.S. Government Agencies in Lao

USAID

USAID works to reduce child stunting in targeted areas of Lao and supports women, men, girls, and boys with physical disabilities to gain free access to prosthetic, orthotics and physical therapy. USAID also focuses on assisting with the modernization of the country's economy, promote sustainable development and biodiversity conservation, and assist victims of unexploded ordnance. It also helps to mitigate the spread of infectious diseases and pandemic threats.¹⁰⁷ The USAID office servicing Lao is located in Thailand.

USAID Regional Development Mission for Asia
Athenee Tower, 25th Floor
63 Wireless Road
Bangkok Lumpini, Patumwan
Thailand, 10330
Phone: +66 (2) 257-3000
Fax: +66 (2) 257-3099
Email: info-rdma@usaid.gov

U.S. Embassy in Lao

The United States Embassy in Lao is currently working with the government of Lao to clear unexploded ordnance (UXO). The U.S. is working with Lao in developing a survey methodology that will measure the extent of UXO contamination and to help the clearance efforts.¹⁰⁸

U.S. Embassy in Lao
Ban Somvang Thai
Thadeua Road, Km 9
Hatsayfong district
Phone: (856) 21-48-7000

Participation in International Organizations

Asian Development Bank (ADB), ASEAN Regional Forum (ARF), Association of Southeast Asian Nations (ASEAN), East Asian Summit (EAS), Food and Agriculture Organization of the United Nations (FAO), Group of 77 (G-77), International Atomic Energy Agency (IAEA), International Bank for Reconstruction and Development (IBRD), International Civil Aviation Organization (ICAO), International Development Association (IDA), International Fund for Agricultural Development (IFAD), International Finance Corporation (IFC), International Federation of Red Cross and Red Crescent Societies (IFRC), International Labour Organization (ILO), International Monetary Fund (IMF), Interpol, International Olympic Committee (IOC), Inter-Parliamentary Union (IPU), International Organization for Standardization (ISO) (subscriber), International Telecommunication Union (ITU), Multilateral Investment Guarantee Agency (MIGA), Non-Aligned Movement (NAM), Organisation of La Francophonie (OIF), Organisation for the Prohibition of Chemical Weapons (OPCW), Prudential Corporation Asia (PCA), United Nations (UN), United Nations Conference on Trade and Development (UNCTAD), United Nations Educational, Scientific, and Cultural Organization (UNESCO), United Nations

Industrial Development Organization (UNIDO), United Nations World Tourism Organization (UNWTO), Universal Postal Union (UPU), World Customs Organization (WCO), World Federation of Trade Unions (WFTU) (NGOs), World Health Organization (WHO), World Intellectual Property Organization (WIPO), World Meteorological Organization (WMO), World Trade Organization (WTO).¹⁰⁹

Foreign Disaster Relief and Emergency Response

Request for and Acceptance of International Assistance

The Government of Lao has yet to outline the process of requesting or accepting offers of international assistance in their legal framework. The Ministry of Foreign Affairs is tasked to issue requests on behalf of the Government of Lao. In the past, issuing an official request for international assistance has been difficult resulting in significant delays in the timely response from international actors. Guidelines directing the chain of communication when issuing a request for international assistance is not clearly explained.¹¹⁰

Legal Status of Foreign Entities Providing Assistance

The legal statuses of international entities providing development assistance to Lao are in place. However, the laws do not safeguard international emergency relief activities. Most international organizations in Lao must successfully negotiate individual agreements or MOUs which cover details such as; visas, tax exemptions, and work permits. However, the pre-existing MOUs traditionally are developed in a legal framework in which they are applicable for disaster situations, and therefore during an emergency or disaster international entities may face legal restrictions in initiating assistance activities.¹¹¹

International Transport, Customs and Tax Arrangements

International agencies face lengthy processes and challenges when transporting relief supplies into Lao after a disaster. International agencies have to navigate the unclear system in Lao for tax exemptions and the importation of supplies including; food, medication, vehicles and telecommunications equipment. The existing

procedures include gaining authorizations from multiple ministries, which result in significant delays in the delivery of critical relief supplies. In the event of communicable disease emergencies, the process is further delayed because the current process for inspection and quarantine regulations do not prioritize the entry of humanitarian supplies and personnel.¹¹²

Greater Mekong Sub-region (GMS) Framework Agreement on Goods in Transit and Cross-Border Transport

The GMS Cross-Border Transport Agreement is a multilateral agreement for the enabling of cross-border transport of supplies and personnel signed by Lao, Thailand, Cambodia, Vietnam, China, and Myanmar.¹¹³

ASEAN Agreement on Disaster Management and Emergency Response (2005)

The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) was signed by ASEAN member countries in Vientiane on 26 July 2005. Lao submitted an Instrument of Acceptance to the AADMER on 5 March 2007. The AADMER aims to facilitate cooperation between the ten ASEAN member countries, as well as international partners, to improve regional capacities for disaster preparedness and response.

The general commitments of Parties under the AADMER are to:

- Co-operate in developing and implementing measures to reduce disaster losses including identification of disaster risk, development of monitoring, assessment and early warning systems, standby arrangements for disaster relief and emergency response, exchange of information and technology, and the provision of mutual assistance;
- Immediately respond to a disaster occurring within their territory. When the said disaster is likely to cause possible impacts on other Member States, respond promptly to a request for relevant information sought by a Member State or States that are or may be affected by such disasters, with a view to minimizing the consequences;
- Promptly respond to a request for assistance from an affected Party; and
- Take legislative, administrative and other measures as necessary to implement their obligations under this Agreement.¹¹⁴

Laws, Policies, and Plans on Disaster Management

DRR has been acknowledged as a national priority for the Government of Lao to reduce the overall effects of natural disasters, to mitigate the effects of climate change, and to develop plans for the implementation of sustainable management of natural resources.¹¹⁵ DM in Lao is not new. The response and relief operations have been at the center of policy and donor support in disaster relief. The NDMC and NDMO were established in 1999 through the Prime Ministerial decree No 158.¹¹⁶

Prime Minister's Decree No. 158

The Prime Minister's Decree No. 158 (1999) created the National, Provincial and District Disaster Management Committees (DMCs). It provides the basis for the development of a disaster management policy. NDMC Decree No. 97 series of 2000 assigns the roles and responsibilities of various sectors composing the NDMC. In December 2007, the other governmental decree was issued, which sought to change the DM policy from an emergency response to a disaster risk management.¹¹⁷

National Strategic Plan for Disaster Risk Management

The current National Strategic Plan for Disaster Risk Management identifies four key strategic objectives: 1) Safeguard sustainable development and reduce the impacts and damages caused by natural and man-made disasters; 2) Shift from relief to mitigation of disaster impacts to community, society and the economy, and preparedness before a disaster strikes with emphasis on hazards such as floods, drought, landslide and fire; 3) Ensure that disaster management is a joint responsibility of both the government and the people through building community capacity; and 4) Promote sustainable protection of the environment and the country's natural wealth such as forests, land and water resources.¹¹⁸

Disaster Prevention and Control Committees (DPCC) have also been set up from the national level down to village level. Currently not at all villages have established VDPU/ VDPCCs in place.¹¹⁹ The government can take steps towards the establishment of further committees, especially in village disaster prone areas, in order to strengthen CBDRM in these villages. In cooperation with various CBDRR

stakeholders, CBDRR projects can be initiated in villages in disaster prone areas in order to build the capacities of local authorities and VDPU/ VDPCC to cope with natural and manmade disasters.¹²⁰

National Disaster Management Action Plan

The Action Plan covers three major time frames from 2001-2005, 2005-2010, and 2010-2020. The general objectives of the Action Plan can be classified into main sections involving programs, training and disaster preparedness.

Develop Programs

- Continue to build disaster management program in accordance with the Prime Minister's Decree 158;
- Organize public awareness and education programs to understand causes of disasters; and
- Link disaster management and other sector programs.

Develop Training

- Develop training programs for the government and public sectors; and
- Coordinate simulation exercises to prepare for disasters.

Improve Disaster Preparedness and Response

- Establish focal points and contact persons for each organization to facilitate coordination between disaster management agencies;
- Organize effective early warning and information management systems to ensure timely dissemination of early warning information to the communities;
- Build storage facilities at the regional and provincial levels for effective distribute resources during disaster and recovery situations;
- Establish rescue and emergency response teams; and
- Establish an Information Centre for Disaster Management.¹²¹

Draft National Disaster Management Plan 2012-2015

The Draft National Disaster Management Plan 2012-2015 is the major plan developed by Lao to build a resilient nation based on the Hyogo Framework. The Disaster Management Vision of the Lao government described in the 2003 Strategic Plan is still applicable to current the National Plan.¹²²

The four-year action plan presents disaster risk threats for the country and the issues faced with risk reduction/mitigation, capacity building, climate change adaptation, livelihood security, gender mainstreaming, community empowerment, and response and recovery management. The plan delivers the national disaster management strategy and the action plan to achieve the desired outcomes. Implementation recommendations highlight areas of deficiency and proposed solutions and actions to remedy the situation with mandates, funding, and external assistance.¹²³

Seventh National Socio-Economic Development Plan (7th NESDP 2011-2015)

The 7th NESDP (2011–2015) aimed to achieve sustainable economic growth and poverty reduction, while gradually transforming Lao into a more open, strengthening the private sector productivity capacity and prioritizing the achievement of the Millennium Development Goals (MDGs) by 2015. The 7th NESDP had four overall targets:

- Ensure continuation of national economic growth with security, peace and stability and ensure GDP growth rate of at least 8 percent annually and GDP per capita of at least US\$ 1,700;
- Achieve the Millennium Development Goals (MDGs), join the ASEAN Economic Community by 2015, and eradicate poverty; adopt appropriate technology and skills and create favorable conditions for graduating the country from Least Developed Country (LDC) status by 2020;
- Ensure the sustainability of development by emphasizing on economic development which should include cultural and social progress, natural resources preservation and environment protection, natural disasters mitigation and climate change adaptation;
- Ensure political stability, peace and social order; and
- Widened regional and international integration.¹²⁴

Eighth National Socio-Economic Development Plan (8th NESDP 2016-2020)

The 8th Five-Year National Socio-Economic Development Plan (2016–2020) “8th NESDP” is a mean to implement the resolutions of the 10th Party Conference that also emphasizes the areas from the previous plan implementation that still need to be achieved. The Plan also reflects the Socio-Economic Development Strategy until

2025 and Vision 2030 with an aim to build a new foundation for graduating from LDC status by 2020 to become an upper-middle-income country by 2030.¹²⁵

Community Based Disaster Risk Reduction (CBDRR)

Lao has established CBDRR practices to cope with reoccurring natural disasters. In Lao, CBDRR is implemented at the village level to effectually make use of local resources and capabilities that will enhance community preparedness for natural hazards and to decrease village vulnerabilities to disasters.

CBDRR projects strengthen the local community’s capacity in managing natural disasters. Lao has also implemented Village Disaster Prevention Units (VDPUs) and Village Disaster Prevention and Control Committees (VDPCC) have developed in some communities.

The Government of Lao seeks to institute VDPCC coverage for 25 percent of vulnerable villages by 2020. However, many villages have not implemented a VDPCC at this time.¹²⁶ The primary function of the VDPUs is to increase the awareness of the local community and to further educate the community on what to do before, during and after disasters. Selected villages were provided with and have implemented community based EWS, while other villages have modified their day-to-day practices to be more resilient to natural disasters.¹²⁷

Education and Training

Government organizations at the national and local level have directed their focus on the education and training of the greater Lao population on disaster risk management through community-based disaster risk management initiatives. Disaster Risk Reduction (DRR) activities at the local level include; Basic education on Disaster Risk Management (DRM) for DM committee at all levels, CBDRM for DDMC and Village DM Units, DRR for specific sectors such as: police, army, teachers, health, mass media, fire prevention dept., women union, other specific courses such as flood preparedness planning, teaching on disaster management (DM) in primary and secondary school, published training manuals on flood preparedness in the Lao language and which are locally distributed, conducting one provincial

training course on planning and implementation of flood preparedness program for Khammouane PDMC, preparation of flood preparedness program in Khammouane province and Nong Bok district, national and regional experience sharing workshops disaster management communications, and incorporating DRM modules into the school curriculum.¹²⁸

Community based disaster risk management in upland communities was developed to build knowledge, skills and resources to mitigate, prepare for and respond to drought and other disasters among the leadership and households in twenty communities. This project spanned five years from 2007 to 2012 and was implemented in the Sekong, Saravanh, and Vientiane Provinces. The lead organizations for the implementation of CBDRM the Ministry of Labor and Social Welfare (MLSW), the National Disaster Management Office (NDMO), the Provincial Disaster Management Committee (PDMC), and Oxfam Australia.¹²⁹

Disaster risk education (DR) for children was implemented to support primary and secondary schools to deliver disaster risk reduction in education, to support child and youth lead activities which increase community resilience and to support the development of a provincial department action plan for sustained implementation of DRR education. The training was implemented in 2009 in the Xieng Hone District, Sayabury Province. The lead organizations for the implementation of DRR for children were Ministry of Labor and Social Welfare (MLSW), the National Disaster Management Office (NDMO), the Provincial Disaster Management Committee (PDMC), and the Asian Disaster Preparedness Center (ADPC).¹³⁰

Mainstreaming DRR into the education sector was implemented to initiate DRR into secondary school curriculum, and to study the impacts of disasters on the education sector. The program was conducted in two phases from 2007-2009 and was led by the Ministry of Education (MoE), National Disaster Management Office (NDMO), the Provincial Disaster Management Committee (PDMC), and the Asian Disaster Preparedness Center (ADPC).¹³¹

Early Warning Systems (EWS)

Department of Meteorology and Hydrology (DMH) is the pivotal entity required to report threats and hazards to the government authorities and NDMO. If the warning is

for a specific province, DMH will notify the appropriate provincial DMH office. While the disaster management organization exists, the Prime Minister can authorize notification through the ministries without National Disaster Management Committee (NDMC)/ National Disaster Prevention Committee (NDPC) or NDMO involvement.

The DMH in Lao is one government agency under the auspice of Ministry of Natural Resources and Environment (MoNRE). The organizational structure of DMH composes of 6 divisions at headquarters, 17 hydro-met services at provincial and stations at district level.

DMH's primary function is to provide meteorological, hydrological, environmental and climate services in support of safety and sustainable development of the Lao community. The DMH is highly competent in issuing meteorological and hydrological warnings to reduce the loss of life and property during severe weather events in Lao and the DMH plays an effective role in international and regional cooperation in the fields of meteorology and hydrology and Climate Service.¹³²

Responsible Agencies for Flood and Storm Warning

Flooding is a reoccurring, major disaster in Lao and results in significant damage to the national socio-economic development in Lao and is responsible for significant loss of life. The current flood warning systems of the country are received in real-time data from the hydrological stations to the data centers for flood forecasting and warning. Most flood alerts are sent to the public by mass media and bulletins.¹³³

The Lao government has established surveillance processes with designated departments and agencies dependent on the disaster management functions. The DMH has the major role of providing early warnings for any hazard detectable by its meteorology and hydrology equipment stationed throughout the country. Domestic stations feed data to DMH and the data is utilized for weather and flood forecasts. DMH does receive regional data the ADSL Internet, MTSAT Satellite Ground Receiving stations, CMACast Satellite Receiving station, the C Band Doppler Radar, the Weather Forecast Center, Flood Forecast Center, the World Meteorological Organization Global Telecommunications System RTH Bangkok, the RBSN and RBCN Secondary Climatic Stations

(48), hydrological stations (98) and national earthquake stations (2). All data is collected through the DMH and dissemination to the appropriate government agencies and the public.¹³⁴

In August 2017, the Ministry of Finance and the World Bank signed an agreement for USD \$30 million in financing for the Lao PDR Southeast Asia Disaster Risk Management Project. The project will invest in urban flood risk management in the Oudomxay province, and in improved and more dependable hydro-meteorological services across Lao. Additionally, a one million dollar grant from the Southeast Asia Disaster Risk Insurance Facility (SEADRIF), a multi-donor trust fund, was received which will support the Ministry of Finance in planning and applying disaster risk financing instruments. The projected benefit from the project is to directly benefit approximately 100,000 residents located in the Muang Xay area of Oudomxay province through urban flood risk management, which will assist in reducing the impacts of severe flooding.¹³⁵

Armed Forces in Disaster Response

The armed forces in Lao provide a critical role and provide essential assets before, during, and after disasters. The armed forces is accountable for preparing and training for disaster operations with lead or supporting roles in the pre-disaster, response, and early recovery phases. While the armed forces support to disaster preparedness and response is important, the Ministry of Defence has limited resources and capabilities for disaster response.

The Ministry of Defence serves as the Chairman of the NDMC; assists communities in evacuation and rescue the trapped groups and individuals; provides essential medical assistance as required and transports injured to the hospitals; undertakes aerial and field assessment in collaboration with other stakeholders to identify needs of survivors; deploys military resources for provision of relief to the survivors in collaboration with other stakeholders; develops a disaster preparedness and response plan for the involvement of Lao military in response and relief operations in different parts of the country; coordinates mitigation activities in post disaster periods; assists civilian authorities in the reconstruction and rehabilitation of infrastructure as needed.¹³⁶

Responsibilities in Pre-Disaster Period

- The representative of the Ministry of Defence shall serve as the Chairman of the NDMC; shall appoint a disaster management contact person from the Ministry and establish focal points at the provincial, district and other units; Responsible for disaster management specialized training and organizing simulation exercises using policemen and civilians; Assess vulnerability of the assets, infrastructure and personnel of the military forces to natural disasters in hazard-prone areas and integrate vulnerability reduction measures; Develop a disaster preparedness and response plan for the involvement of Lao military in response and relief operations in different parts of the country; Assess resources for relief, rescue and evacuation work by the military; Deploy Army resources for disaster response upon receipt of instructions from the NDMC.¹³⁷

Responsibilities in Disaster Period

- Responsible for the National Search and Rescue Team (NASRET); coordinating joint emergency operations in disaster events; Deploy Army resources for disaster response upon receipt of instructions from the NDMA; Assist communities in evacuation and rescue the trapped groups and individuals; Undertake aerial and field assessment in collaboration with other stakeholders to identify needs of survivors; Deploy Army resources for provision of relief to the survivors in collaboration with other stakeholders; Assist communities in evacuation and rescue the trapped groups and individuals; Provide essential medical assistance as required and transport injured to the hospitals; Undertake aerial and field assessment in collaboration with other stakeholders to identify needs of survivors; Deploy Army resources for provision of relief to the survivors in collaboration with other stakeholders.¹³⁸

Responsibilities in Post-Disaster Period

- Coordinating mitigation activities in post disaster periods; assist civilian authorities in the reconstruction and rehabilitation of infrastructure as needed.¹³⁹



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Infrastructure

Infrastructure in remote areas of Lao is particularly limited. Many roads are inaccessible during the annual rainy season. Infrastructure is inadequate outside the capital Vientiane and is very basic in many rural areas. Some progress has been made with the help of foreign assistance.¹⁴⁰ However, there are recent initiatives among the Mekong basin countries including Lao, through the Mekong River Commission (MRC), to improve transnational infrastructure and facilitate the substantial, long-term economic benefits of increasing trade.¹⁴¹

Airports

Domestic air transport in the country may be small but it is growing.¹⁴² The restricted roads make air travel increasingly important, especially tourism. There are 14 civilian and 30 non-civilian airports in Lao. Nine are paved. There are three international airports: Wattay International Airport (VTE), Luang Prabang International Airport (LPQ), and Pakse International Airport (PKZ). Table 2 lists the three main International Airports in Lao along with their runway length and surface information.¹⁴³

Land Routes

Roads

The road network carries about 90 percent of freight and 80 percent of passenger traffic.¹⁴⁴ The volume of goods transported by road is rising by about 5-8 percent per year and passenger road transport volumes are increasing by 8-10 percent. In 2015, Lao had a total road network of 45,800 km. Only 7,370 km are designated national or paved roads, of which 2,810 km are included in the ASEAN Highway network. The road network is expanding at rate of about 7.4 percent a year as

the government has expanded the network, both for trade and strategic reasons. Its core national highway system is fully surfaced, although major washouts are still common during the wet season.¹⁴⁵

There are four so-called Friendship Bridges that link Lao with Thailand over the Mekong at Vientiane-Nong Khai, Savannakhet-Mukdahan, Khammouan-Nakhon Phanom and most recently at Huay Xai-Chiang Khong. In 2006 a new border crossing was opened with Vietnam. It was built as part of the trans-Asia highway project, and provides a connection from the south of the country to Vietnam's Da Nang city. In May 2015, the first trans-Mekong Lao-Myanmar Friendship Bridge was officially opened. The USD \$26 million bridge is located around 700 km north of Vientiane and links Laos' Luang Namtha province with Myanmar's Shan State.¹⁴⁶

Significant improvements have been made to the main National Road 13, which runs the length of the country, linking China with Vientiane, Savannakhet, the Cambodian capital of Phnom Penh, and Vietnam's Ho Chi Minh City. Urban roads around the capital are generally good. Public transport includes buses.¹⁴⁷

In early 2017, Lao signed a deal with Vietnam to build a highway that would link the capital Vientiane with Vietnam's Hanoi and Vung Ang port.¹⁴⁸

Railways

In terms of the role of railways, there is an urgent need for the government and private sectors to catch up with their competitors from other Asian countries. The only railway line in Laos to date is a short metered rail link between Laos and Thailand that opened in 2009. It is part of the Thai network that crosses the River Mekong from Nong Khai to Tha Na Laeng.¹⁴⁹ Plans are underway to extend this line to central Vientiane. Construction began in 2016 on a Lao-China Railway project but it will not be completed until 2021.¹⁵⁰ Lao uses the current rail

Airport	Maximum Runway length	Runway surface information
Wattay (Vientiane)International	3,001 m (9,843 ft)	Asphalt
Luang Prabang International	2,200 m (7,218 ft)	Paved
Pakse International	2,000 m (7,874 ft)	Asphalt

Table 2: International Airports in Lao PDR

line for passenger traffic and to transport freight by rail to Thailand. The country joined a regional scheme, in which cargo operators can hold cross-border operating licenses for one year. The country is a member of the Intergovernmental on the Tran-Asian Railway Network Ratification and Instrument of Acceptance the Protocol 6 on the railways border and interchange Station. Lao is also a member of Singapore-Kunming Rail link.¹⁵¹

Waterways

River transport is used for about six percent of the local freight and 15 percent of passengers.¹⁵² Lao has 4,587 km of inland waterways, principally consisting of the Mekong River and its tributaries. The waterways remain important for cargo transportation.¹⁵³

Seaports

Lao is a landlocked country and therefore there are no seaports. It has a number of river ports along the Mekong River, but relies on Thailand and Vietnam for access to sea ports. Mekong River ports are used for cross-border trade with Thailand with the largest ports at Ban Houey Xay, Luang Prabang, Pakbeng, Vientiane, Savannakhet, and Pakse. The military-runs a coastal freighter operating out of Bangkok called Bolisat Phatthana Khet Phoudoi (BPKP).¹⁵⁴

Schools

Education in Lao includes primary and lower secondary school levels. Children begin school from the age of six years until they complete four years of secondary education.¹⁵⁵

Lao has a total urban literacy rate (aged 15+) of 89.3 percent. Male literacy is 82.5 percent, and female literacy is at 63.2 percent.¹⁵⁶ According to the latest Census (2015), the population aged six years and above who had never attended school accounted for 13 percent, currently attending school (27percent) and school dropouts (58 percent).¹⁵⁷

No national standardized student assessments exist, but the Ministry of Education and Sports (MoES) is preparing a policy and plans to support them. MoES appoints new teachers to the education system, and provincial and district levels then deploy teachers to schools. Various school assessments take place annually. Results of school self-assessments are used for the purpose to inform the creation of school development plans. However, only occasional donor-supported

standardized student assessments have been implemented.¹⁵⁸

Communications

The Mekong River is by far the most important river in Southeast Asia not just for its abundant water resources, but because the river is the main line of communication through Lao. During the high-water season the Mekong River is navigable from the Chinese border to a series of waterfalls near the Cambodian border in the south. The Nam Ou River is the primary line of communication between Luang Prabang and Phong Saly.¹⁵⁹

Although some improvements have been made, telecommunications services are poor in Lao. Telephone connections are provided by Lao Telecom (which is owned by a Thai investor and the Lao government). International access via International Direct Dialing (IDD) is efficient in Vientiane and other major urban areas. International telephone and e-mail services are present in the capital and in some tourist areas, but they can be expensive and unreliable. By 2014 there were an estimated 170,000 fixed-line telephones. Cell phone ownership has increased with 5.5 million subscribers, or around 90 percent of the country's population. All urban centers and almost 7,000 villages are using mobile phones. Internet use is estimated at one million. In November 2015 China launched Laos' first satellite to enhance communication throughout the country.¹⁶⁰

Utilities

Power

The power sector plays a major role in the economy of Lao. It is expected that the country will increase the electrification to 90 percent by 2020. The government has prioritized to optimization of the power sector in order to alleviate poverty. The demand for electricity in Lao has increased due to the power production for export. Fortunately, Lao counts with many rivers, which increase the hydropower resources. It is estimated that Lao has a potential hydropower resource of 23,000 MW. Almost 100 percent of the total power supply comes from hydro power source. Lao exports 81.3 percent of the electricity generated to Thailand and the remaining is consumed domestically.¹⁶¹

Water and Sanitation

In 2015, 76 percent of the population had access to improved sources of drinking water, while sanitation improved by 71 percent.¹⁶² Defecation in the open is still a significant concern, particularly in rural areas where only 48 percent of households use a proper toilet, compared to 87 percent in urban areas. Even so, this is an improvement; there has been a 37 percent decline on the rates of open defecation.¹⁶³

The rural-urban gap in sanitation is significant in Lao. Improved sanitation is secondary to clean water; therefore, it is not a priority for the poor. The need of clean water is higher since it is a basic human need.

The consequences of unsafe water and inadequate sanitation are severe, it increases the risk of children to have diarrhea, stunting, and being underweight.¹⁶⁴

Currently, surface water is the major water source for urban supply since most towns are located along the rivers. The quality of the water in the rivers is satisfactory, although it is being threatened by pollution, in particular, waste and sewerage, as well as agricultural, industrial, and mineral run-offs from areas being developed.¹⁶⁵



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Health

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Health

Health Overview

Medical care in Lao is lacking. According to the World Health Organization (WHO), the total health expenditure in 2013 was 2.0 percent of GDP or the equivalent of around \$US 95 per capita. The public health system is underdeveloped, with only about 70 percent of the population having access to basic levels of care. It is estimated that for every 10,000 citizens, there are only 3.5 doctors. Doctors are starting to centralize in urban areas and are privatizing healthcare, this is mostly due to the increasing demand for better services.¹⁶⁶ However, it comes at the expense of those living in rural communities. Even with these challenges, Lao has managed to improve public health overall. Life expectancy is one of the key indicators of the improvement, but other areas of concern still affect the healthcare system. Issues such as HIV/AIDS are important aspects of the failure of the system; the government is not prepared to deal with the cost of long term medical challenges. Other health risks include mosquito-borne diseases, such as high-resistance strands of malaria and dengue fever. Lao also has high maternal mortality rate and limited skilled birth attendance, particularly in remote rural areas.¹⁶⁷

Healthcare System Structure

Lao's healthcare system is a government-owned system with three administrative levels: central (Ministry of Health (MOH), provincial (provincial health offices, or PHOs) and district level (district health offices, or DHOs). The structure of the health sector is organized among the MOH, 17 PHOs, the University of Health Sciences, and seven provincial colleges/schools, in addition to four central hospitals, four regional, 12 provincial hospitals, and many DHOs and district hospitals, with health centers and village drug kits providing the primary level of services.¹⁶⁸

Central Level

The MOH, a national health authority, manages and organizes services, including health prevention and promotion, curative care, and rehabilitation. It also has regulatory functions over food and drug safety, traditional

medicine, and supplies of pharmaceutical and medical equipment. The MOH also manages health information, human resources for health, health financing, and international health cooperation. The administrative apparatus of the MOH includes the Ministry's Cabinet and nine departments. In addition, the MOH has 40 institutions in three major areas: hospitals, preventive and curative medicine national centers, and medical colleges and universities.

Provincial Level

A PHO is an agency under the jurisdiction of the provincial government, headed by the governor. The PHO advises the governor on health affairs in the province, provides budget for provision of health services, and performs tasks as authorized by the governor. The PHO works under the control of the governor in terms of direction, organizational management, payroll and operations, but is also under the control of the MOH in terms of technical direction, guidance, monitoring, and inspection. The PHO administrative structure includes a cabinet, professional and technical divisions, and healthcare facilities. It is also responsible for health audits to district hospitals and health centers. Currently, there is one Capital Health Office (responsible for the capital city, Vientiane) and 16 PHOs with 16 provincial hospitals.

District level

The DHOs supervise the services of the district hospitals and health centers. Each DHO works under the control of the district mayor in terms of direction, organizational management, payroll and operations. However, DHOs are also under the control of the PHOs for technical direction, guidance, monitoring, and inspection. At the district level there are district hospitals (including outreach activities) and district units for preventive medicine, such as mother and child health (MCH), immunization, and hygiene and prevention units.¹⁶⁹

Figure 7 depicts the organization of the health system in Lao.¹⁷⁰

Health Reform

Challenges in the Healthcare System

A persistent problem with the healthcare system is professional training. Lao no longer offers training for low-level health workers, forcing the current low-level workers to upgrade

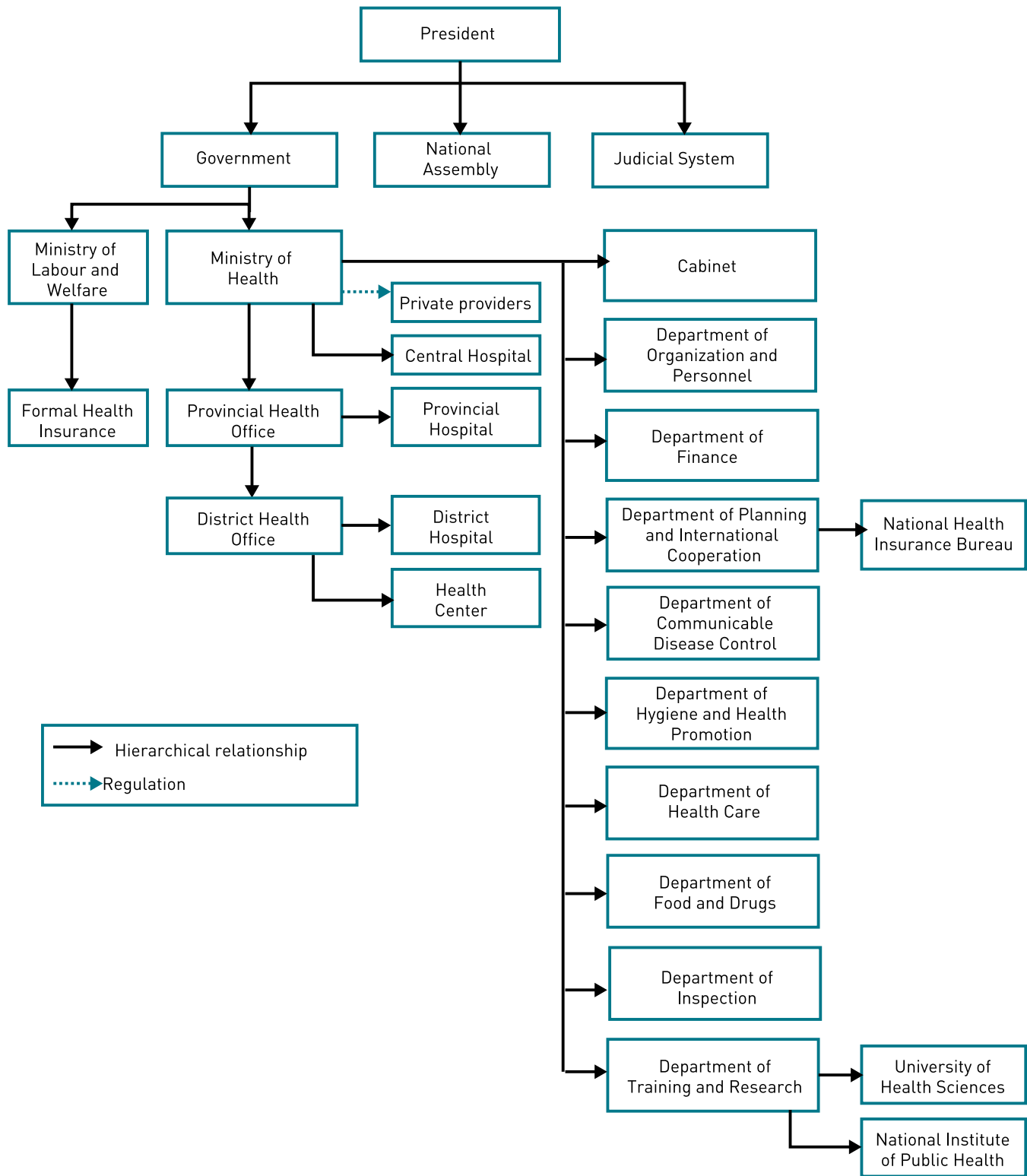


Figure 7: Organization of the Health System in Lao

their education. This has created a gap in service and many low-level staff workers are unable to upgrade their education.¹⁷¹

Continuing education programs are not obligatory for health staffs (other than low-level staff) to maintain their license. This is due to the availability of funding in health facilities. Participation in continuing education programs is occasionally offered to outstanding health staff as incentives.¹⁷²

A disconnect exist between medical education and health workforce demand. Medical education programs have quality limits and insufficient training for health workers. The medical education programs are not based on the actual demand, and the students in health disciplines are trained in less relevant disciplines. There is a lack of health education facilities and teachers, and the students do not have sufficient opportunities to conduct clinical practices.¹⁷³

Lao has a series of four policy notes for health and nutrition information, with each note respectively focusing on government health spending, maternal and child expenditure, healthcare workers and the status of nutrition.¹⁷⁴

Government Expenditure on Health in Lao

- Lao has made notable progress in improving maternal and child health outcomes. However, by global standards, it still has some of the most lagging population health outcomes globally associated with low access to health services and worsening financial protection.
- Catastrophic health expenditure has worsened from 3.8 percent in 2007-2008 to 5 percent in 2012-2013.
- Lao has low, but increasing levels of government spending and is committed to increasing government health expenditure to 9 percent of total government expenditure by 2015.
- In moving towards universal health coverage (UHC), Lao will need to decrease reliance on out of pocket-financed revenues from revolving drug funds, increase domestic government health financing (accompanied by a change in its composition and distribution), and strengthen pre-payment mechanisms.

Maternal and Child Out-of-Pocket Expenditure and Service Readiness in Lao

- Maternal mortality has decreased from 1,600 per 100,000 births in 1990 to 220 per 100,000 births in 2013.

- However, only 38 percent of these births occurred in a health facility and only 56 percent and 39 percent of pregnant women received any antenatal and postnatal care. Income and geographic inequities in health service utilization further accentuate this problem.
- In order to achieve more, tackling low utilization of maternal health services and weak financial protection, especially among the poor, can help.
- The Government of Lao has introduced a national free maternal and child health policy, which has the potential to reduce household expenditure on maternal health services substantially. However, this investment may be regressive due to the low utilization of health services among the poorer quintiles. Non-financial barriers, such as ethno-linguistic barriers, cultural barriers, poor education, physical access, need to be addressed, coupled with investments in the supply-side service readiness of facilities and staff, especially with regard to consumables such as essential drugs.

Lao Health Center Workforce Survey

- At the national and regional-level, the number of critical healthcare workers was mal-distributed and low, just over half of WHO recommendations, although share of public spending on staff (within overall government health expenditure) was within global and regional norms.
- At the facility level, health centers were staffed typically with four health workers who were relatively under-utilized, with only six consultations per health worker per day on average. Underutilization may lead to continued low productivity and low clinical ability.
- Healthcare workers include medical assistants and nursing professionals with mid-level degrees and four years of work experience, who receive a mean income of 1,599,000 kip (\$192).
- Almost half, or 44 percent, of healthcare workers never undergo in-service training. Where training was received, it was often mismatched with the type of health services being provided by the health worker.
- Although most healthcare workers were female (57 percent), 42 percent of health staff conducting deliveries were male, which may compound the already high cultural barriers in accessing maternity services.

- Poor service readiness (infrastructure, availability of medicines and equipment) and poor compensation were the main sources of dissatisfaction among health workers.

Nutrition in Lao: Causes, Determinants, and Bottlenecks

- The causes of undernutrition in Lao are multi-sectoral ranging from factors that are determined before the child is born (mother's stature, education, health, diet and age during pregnancy) to factors affecting the child after birth (sub-optimal infant and young child feeding, poor hygiene and sanitary environment).
- While food insecurity is widely assumed to be a major determinant of stunting in Lao, World Bank analyses show that access to food is less of a concern, but rather the lack of dietary diversity (which is largely due to poor child feeding practices) is the main source of inadequate nutrient intake in children.
- Children born to young girls, to mothers with less than complete primary education and to mothers who are themselves stunted, are much more likely to be stunted. The likelihood of being stunted is 10 percent higher among children conceived by women below the age of 17.
- Poor knowledge about nutrition among health workers in rural areas is demonstrated in practice. Sixty-seven percent of health center staff have not received appropriate training on nutrition, and they tend not to recognize stunted children or offer appropriate recommendations about nutrition and growth promotion.
- A combination of demand-side and supply-side interventions are needed. On the demand-side, scaling up of social and behavior change communication directed at mothers, child caregivers, as well as influential family members (grandmothers, husbands), focusing on appropriate infant and young child feeding practices, improving sanitation and hygiene practices, and prevention of teenage pregnancy is needed.
- On the supply side, there is a need to improve health and nutrition services delivered by frontline health workers, particularly in strengthening the skills and confidence among health workers in providing nutrition and growth promotion counseling.¹⁷⁵

Health Assistance

The World Bank approved USD15 million towards the Health Governance and Nutrition Development Project (HGNDP) in Lao. This will further support the HGNDP, which is helping to establish a unified approach to healthcare information systems that enable senior policymakers in the Ministry of Health to plan better. The HGNDP project builds on an earlier initiative, which successfully increased access to healthcare in specific areas of the country for reproductive, maternal and child health, and nutrition services.

The project began in 2015 and it introduced results-based financing approaches aimed to accelerate policy change, improve delivery of maternal and child health services, and achieves better health outcomes. The additional financing has given the project room to further improve health management and data systems at the subnational level and strengthen immunization coverage, as well as support a national campaign to encourage behavioral change towards nutrition.

The World Bank currently finances 18 projects in Lao in a variety of sectors. One of the key areas of the World Bank's Country Partnership Framework 2017-2021, is investing in people, with the goal of reducing malnutrition and improving access to and quality of health services.¹⁷⁶

Communicable Disease

Major infectious diseases and communicable diseases have a very high associated degree of risk in Lao. Food and waterborne diseases such as bacterial and protozoal diarrhea, Hepatitis A, and typhoid fever are common communicable diseases in the region. Vector-borne diseases such as Dengue Fever, Chikungunya virus and Malaria are prevalent. Various strands of bird flu have also affected the region in recent years. The extremely pathogenic H5N1 avian influenza (bird flu) has been identified in Lao.

Although Lao is located in a region where HIV/AIDS statistics are comparatively high in countries such as; Thailand, China, Vietnam, Cambodia and Myanmar, Lao has a significantly lesser prevalence of HIV. The Government of Lao worked progressively to respond to the HIV/AIDS virus emergence in the region and provided public education on the issue, as a

result; the prevalence of the HIV/AIDS virus in Lao has not been as significant or prevalent as seen in other parts of the region. However, Lao has indicated an increase of HIV/AIDS in migrant workers.¹⁷⁷

Photo 8 depicts an infant receiving the first dose of the Hepatitis B vaccine at a health facility in Lao.¹⁷⁸



Photo 8: Newborn Receives First Round of Hepatitis B Vaccine

Non-Communicable Diseases

The Department of Chronic Diseases and Health Promotion of the World Health Organization (WHO) reported that the health, social and economic impacts of chronic diseases in many low and middle income nations is progressively increasing. Data suggests that approximately 80 percent of chronic disease mortalities take place in low and middle income countries. Laos is a developing country and is classified as one of the poorest countries in the world.

In Lao chronic diseases are the leading causes of death. Major chronic diseases such as hypertension, stroke, diabetes, chronic respiratory diseases and lung cancer are the primary causes of health-related mortality. The leading causes of cardiovascular deaths are stroke, heart failure and acute myocardial. Raised blood pressure, dyslipidemia, alcohol consumption and tobacco smoking are the most common risk factors of stroke in Lao. Non-communicable diseases such as hypertension and stroke are highly common in Lao. Strokes are responsible for more than 50 percent of the cardiovascular mortality in Lao.¹⁷⁹

Training for Health Professionals

Healthcare Education

Lao has developed a complicated health education system, comprising of curriculum, structure, and various career paths; however, educational disparities in the system are present. Lao's health education system was developed to provide education in four categories of healthcare including: medical and dental, nursing and midwifery, paramedical, and management and administration. The healthcare education system consists of bachelor and postgraduate level curriculum. The length of instruction varies between the specialties and ranges from two to six years of study. The yearly amount of graduates in all specialties is approximately 2,000 from 10 health education institutions, one medical university, five health professional colleges, and four health schools.¹⁸⁰

Continuing Education

Ongoing education curriculums are provided to healthcare workers as long-term continuing education programs, but in shorter duration than the direct entry programs. The condensed-term continuing education curriculums are instructed at four levels: health facility, district, provincial, and central levels. The programs at the health facility level consist of in-seat instruction with varied frequencies among facilities. The district, provincial, and central-level curriculums are instructed in the form of concentrated training involving different topics. Various intercontinental institutes also provided curriculum or financing to support continuing education programs. Additionally, scholarship opportunities allow some healthcare professionals to attend upper-level programs in health facilities or in other countries.¹⁸¹



LAO PDR
Women, Peace, and Security

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Women, Peace, and Security

Lao ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1981. Lao was the second country in the region (Philippines was the first), however the first state report was not submitted to the CEDAW Committee for review until 2005. Within Lao CEDAW data is restricted to senior government officials and senior members of the Lao Women's Union (LWU). Greater understanding of CEDAW and of women's human rights is essential throughout Lao. The National Commission for the Advancement of Women (NCAW) was founded in 2003 and serves as Lao's national women's mechanism for the promotion of gender equality and women's empowerment. NCAW's primary function is to formulate and implement national policy for the advancement of women, as well as monitoring implementation of the Convention and the Beijing Platform for Action.¹⁸²

The primary challenges to gender equality in Lao are supporting equal access for women to opportunities and resources. These challenges are particularly difficult for rural and marginalized women in Lao. Women in Lao foster high levels of illiteracy, have limited access to reproductive and basic health, are faced with food insecurity and economic exclusion. These challenges rank high among development priorities for women. The small-scale business sector in Lao is dominated by women, who represent more than 90 percent of vendors in fresh food markets across the country. A lack of education and economic opportunities, and limited access to resources force women into small-scale businesses. The greater parts of these women belong to one or more of Lao's vulnerable groups: ethnic minorities, illegal workers, and poverty-stricken, undereducated, disabled, or residing in isolated areas.¹⁸³ Photo 9 depicts a woman selling produce from a cart at a fresh fruit vendor in Vientiane, Laos.¹⁸⁴

In December of 2014, the Government of Lao announced greater safeguard actions for violence against women

and children together with ratifying a new law on combatting violence against women and children. The government's other key accomplishments includes a system-wide commitment and capacity for application, monitoring and reporting on CEDAW; combating violence against women and promoting more stringent standards to legislative methods to policy making and development planning in regards to the national strategic plan.¹⁸⁵

The Lao National Survey on Women's Health and Life Experiences in 2014, commissioned by the Government of Lao and the United Nations Population Fund (UNFPA) with the support of UN Women and the World Health Organization, is recognized as Lao's first national survey on violence against women. The report revealed approximately one-third of women in Lao have suffered physical violence, sexual violence or emotional abuse. Reported cases of abuse account for less than five percent of all cases. Additionally, roughly 50 percent of all women who were physically or sexually abused by their husbands reported frequent physical injuries.¹⁸⁶

The Government of Lao is progressively working to improve women's economic position with its National Strategy for the Advancement of Women, intended to promote women's initiatives in economic leadership, increase women's participation in development planning and to improve women's access to essential services. Lao has recently witnessed an increase in women's involvement in the labor market. However, Lao continues to face several economic and social confronts for women. Vast disparities exist in the developmental indicators of men and women.¹⁸⁷



Photo 9: Fresh Fruit Vendor



LAO PDR Conclusion

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Conclusion

The policies related to disaster management have mainly focused on providing emergency relief to meet basic needs, such as food, water, and shelter. Lao has not focus on the mobilization of resources for prevention and mitigation as much. The creation of the National Disaster Management Committee (NDMC) was a significant breakthrough for disaster management.¹⁸⁸

Lao has made attempts at improving their disaster management, but they have fallen short. The country's four key strategic objectives; 1) safeguard sustainable development and reduce the impacts and damages caused by natural and man-made disasters, 2) transition from relief to mitigation of disaster impacts to preparedness for the community, society and economy before a disaster occurs with emphasis on hazards such as floods, drought, landslide and fire, 3) ensure that disaster management becomes a joint responsibility between the government and people by building community capacity, and 4) promote sustainable protection of the environment and the country's forests, land, and water resources, have not been met.¹⁸⁹

Lao does not have an effective early warning system at the local level and the procedures to access emergency funds remains a large challenge for both the government and the international community. This delays the response of different agencies as there is no official process.¹⁹⁰

In recent years, Lao has experienced high levels of economic growth; however, certain groups including the poor, children, women, and the disabled are part of the vulnerable population that is vulnerable to natural disasters and seasonal fluctuations in weather.¹⁹¹

The majority of the Lao workforce is in the agriculture sector. One of the main structural weaknesses facing the development of the private sector is the lack of skilled labor. Having the highest level of illiteracy in the region, and lack of educational does not help the country.¹⁹² Even though Lao is becoming a middle-income status country, twenty percent of the population consumes less than the minimum dietary requirements and the country is behind on stunting reduction.¹⁹³

Lao is considered as one of the most vulnerable countries in Southeast Asia to future climate change impacts, especially in the form

of droughts and floods causing landslides, river bank erosion and reduced food security.¹⁹⁴ This highlights the importance of an improved disaster management system, since climate change is making Lao more vulnerable to disasters.



LAO PDR Appendices

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Appendices

DMHA Engagements in the Past Five Years

September 2017- The U.S. Pacific Airforce (PACAF), along with several nongovernmental organizations, participated in Pacific Angel humanitarian assistance and subject matter expert exchanges from September 5-18, 2017. Pacific Angel has built positive relations through interactions such as these for the last decade in Lao, Bangladesh, Cambodia, Timor-Leste, Indonesia, Vietnam, the Philippines, Sri Lanka, Thailand, Mongolia, Tonga, Nepal and Papua New Guinea.

April 2016- MARFORPAC supported a Humanitarian Mine Action with one EOD team. The goal was to reduce human suffering by minimizing the adverse effects of mines and UXO's on non-combatants.

September 2016- Lao and Japan co-host The Association of Southeast Nations Defense Minister's Meeting (ADMM-Plus) Exercise 2016. The combined TTX and FTX was the Capstone Event for the three year co-chairmanship of the ADMM-Plus Experts Working group. The exercise improved joint operations among the Armed Forces of the ten ASEAN Member States and eight other countries.

December 2016- Lao hosted the 9th meeting of the ADMM-Plus HADR Experts Working Group. The meeting concluded the three year Lao and Japan co-chairmanship of the ADMM-Plus Experts Working Group. The development of the MNCC SOP was the primary deliverable.

September 2015- Lower Mekong Initiative Disaster Relief Exercise and Exchange (LMI DREE)

The LMI DREE is annual civil-military disaster preparedness and response initiative between the U.S. and governments of Lao PDR, Cambodia, Myanmar, Thailand, and Vietnam. The United States Army Pacific (USARPAC) supported the State Department's Lower Mekong Initiative (LMI) by conducting a civil-military coordination exercise focused on regional flooding and emergency response within the Mekong region watershed in Lao. During an

exercise during the Lower Mekong Initiative, participants discussed a typhoon scenario that caused massive flooding along the Mekong River and tributaries in Lao, with specific focus on its impacts to the agriculture, health and transportation infrastructure sectors.¹⁹⁵

December 2014- Lao hosted the 5th meeting of the ADMM-Plus Experts Working Group. Discussions focused on the considerations of legal issues of foreign forces, exchange of views on countries processes and procedures on the reception of foreign forces in times of natural calamities and emergencies, as well as the development ADMM-Plus Standard Operating Procedures.

September 2014- USPACOM provided a capacity building workshop in conjunction with National Blood Transfusion Center. The purpose was to develop, improve and increase capacity, and promote blood product safety by providing technical assistance to civil-military medical personnel.

May 2014- USPACOM provided new laboratory equipment to a regional blood center for Northern Laos on the grounds of Luang Prabang Provincial Hospital.

April 2012- U.S. Pacific Airforce (PACAF) conducted Exercise Pacific Angel, which demonstrated U.S. goodwill and Global reach. It also promoted regional civilian-military partnerships and enhanced military-military, military-civilian, military-NGO, and military-Interagency Interoperability capacities.

International/Foreign Relations

Lao is in an interesting position. Historically, the country has been influenced by varying bigger powers around it. China has a footprint in Lao PDR because it is the largest source of developmental assistance and investment in the country. Lao is supportive of investments and grants because they want to graduate from Least Developed Country Status-by 2020.¹⁹⁶ China's interest in economic cooperation in this arena links China's political-security cooperation and creating a pull on the ASEAN member states. Lao has had to manage relationships with countries surrounding it while becoming an ASEAN chair (in 2016).¹⁹⁷

The U.S. continues to advance its political, economic, and security interests in Southeast Asia and works with ASEAN to secure vital sea-lanes, fight translational threats, and increase the economic growth in the region. There is no comprehensive regulatory agenda between ASEAN and its bilateral or multilateral aid partners such as the U.S., China, Russia, Japan, Australia and others. Lao, like many ASEAN countries, has many multilateral aid partners which is important to recognize as the U.S. is part of this arena.¹⁹⁸

Force Protection/Pre-Deployment Information

The following information is provided for pre-deployment planning and preparations. Visit www.travel.state.gov prior to deployments for further up-to-date information.

Passport/Visa

Before entering Lao, you must ensure that your passport has at least six months validity remaining from the date of entry and at least two blank visa pages.

Lao requires tourist visas, which are available on arrival at certain ports of entry. Visas on arrival permit a 30 day stay in Lao; however, you can extend the visa up to an additional 60 days through the Department of Immigration in Vientiane. Be sure to have a valid entry stamp and stay within your authorized period of departure from Lao. Otherwise, you will be fined and possibly be arrested.

You may obtain a tourist visa before arriving in Lao, if you do so, you may stay in Lao for 60

days. To obtain a visa in advance, and for other information about Lao entry requirements, please contact the Embassy of the Lao People's Democratic Republic, 2222 S St. NW, Washington DC 20008, tel: 202-332-6416, fax: 202-332-4923.

If your U.S. passport is lost or stolen in Lao, you must obtain both a replacement passport and an exit visa. In an emergency, the U.S. Embassy can issue a limited validity replacement passport in one day; however, the Lao government requires three to five working days to issue an exit visa.

When traveling with a child, your departure may be facilitated if you have documents that prove your relationship to the child, such as the child's birth certificate, and permission for the child's travel from the parent(s) or legal guardian not present. U.S. citizen children born out of wedlock to a Lao national and a U.S. citizen may experience difficulty departing Laos.¹⁹⁹

Emergency Contact Information

U.S. Embassy Vientiane

Thadeua Road, Km 9
Ban Somvang Thai
Hatsayphong District
Vientiane, Lao PDR
Telephone: +(856) (21) 48-7000
Emergency After-Hours Telephone: +(856) (21) 48-7600
Fax: +(856) (21) 48-7040
Email: CONSLAO@state.gov

Currency Information

The currency for Lao is the Lao kip (k). The symbols used for the kip is k.

Travel Health Information

Medical Care

Medical facilities and services in Lao are extremely limited and may not meet basic international standards.

Before traveling to Lao, make sure your health insurance plan provides coverage overseas; however, medical providers usually only accept cash payments.²⁰⁰

Prescriptions

When traveling with prescription medication, contact to Lao Ministry of Foreign Affairs to ensure the medication is legal in Laos.

Always carry your prescription medication in original packaging, along with your doctor's prescription.²⁰¹

Vaccinations

Before arriving in Lao, make sure you are up-to-date on all vaccinations recommended by the U.S. Center for Disease Control and Prevention (CDC).²⁰² Some of the vaccines you are expected to have include measles-mumps-rubella (MMR) vaccine, diphtheria-tetanus-pertussis vaccine, varicella (chickenpox) vaccine, polio vaccine, and your yearly flu shot.²⁰³

CDC Travel Recommendations for Travel to Lao

Eat and drink safely

Unclean food and water can cause travelers' diarrhea and other diseases. Reduce your risk by sticking to safe food and water habits.

Eat

- Food that is cooked and served hot
- Hard-cooked eggs
- Fruits and vegetables you have washed in clean water or peeled yourself
- Pasteurized dairy products

Don't Eat

- Food served at room temperature
- Food from street vendors
- Raw or soft-cooked (runny) eggs
- Raw or undercooked (rare) meat or fish
- Unwashed or unpeeled raw fruits and vegetables
- Unpasteurized dairy products
- Bushmeat (monkeys, bats, or other wild game)

Drink

- Bottled water that is sealed
- Water that has been disinfected
- Ice made with bottled or disinfected water
- Carbonated drinks
- Hot coffee or tea
- Pasteurized milk

Don't Drink

- Tap or well water
- Ice made with tap or well water
- Drinks made with tap or well water (such as reconstituted juice)
- Unpasteurized milk
- Take Medicine
- Talk with your doctor about taking

prescription or over-the-counter drugs with you on your trip in case you get sick.

Prevent Bug Bites

Bugs (like mosquitoes, ticks, and fleas) can spread a number of diseases in Lao. Many of these diseases cannot be prevented with a vaccine or medicine. You can reduce your risk by taking steps to prevent bug bites.

To prevent bug bites:

- Cover exposed skin by wearing long-sleeved shirts, long pants, and hats;
- Use an appropriate insect repellent (see below);
- Use permethrin-treated clothing and gear (such as boots, pants, socks, and tents). Do not use permethrin directly on skin;
- Stay and sleep in air-conditioned or screened rooms; and
- Use a bed net if the area where you are sleeping is exposed to the outdoors.
- For protection against ticks and mosquitoes:
- Use a repellent that contains 20 percent or more DEET for protection that lasts up to several hours.

For protection against mosquitoes only:

- Products with one of the following active ingredients can also help prevent mosquito bites. Higher percentages of active ingredient provide longer protection. Always use insect repellent as directed.
- DEET
- Picaridin (also known as KBR 3023, Bayrepel, and icaridin)
- Oil of lemon eucalyptus (OLE) or PMD
- IR3535²⁰⁴

Safety and Security

The U.S. Embassy recommends that U.S. citizens avoid non-essential travel to all of Xaisomboun Province. U.S. Embassy personnel are restricted from traveling to Xaisomboun Province due to past reports of violence.

There are large amounts of unexploded ordnance in Lao (UXO) left over from the Indochina War. UXO is found in some parts of Savannakhet, Xieng Khouang, Saravane, Khammouane, Sekong, Champassak, Houaphan, Attapeu, Luang Prabang, and Vientiane provinces. In particular, UXO is found along Route 7 (from Route 13 to the Vietnam border), Route 9 (Savannakhet to the Vietnam border), and Route 20 (Pakse to Saravane). Never pick up unknown metal objects and avoid traveling off

well-used roads, tracks, and paths.

Exercise caution in remote areas along the border with Burma. Bandits, drug traffickers, and other people pursuing illegal activities operate in these border areas, as do armed insurgent groups opposed to the government of Burma.²⁰⁵

Crime: In Lao, petty thieves target foreigners for pickpocketing (especially in tourist hubs) and theft of unattended property, including in vehicles. Thieves on passing motorcycles snatch

purses. Petty theft increases during major Lao holidays. Residential break-ins also occur.²⁰⁶

Scams: In tourist areas, shop owners may rent motorbikes to tourists, have someone “steal” the motorbike, and charge the tourist for the cost of the “stolen” motorbike. Be cautious of rental arrangements and never provide your passport as collateral.²⁰⁷

Sendai Framework

The Sendai Framework is the global blueprint and fifteen-year plan to build the world’s resilience to natural disasters.²⁰⁸ The Sendai Framework for Disaster Risk Reduction 2015-2030 outlines seven clear targets and four priorities for action to prevent new and reduce existing disaster risks:

- Understanding disaster risk;
- Strengthening disaster risk governance to manage disaster risk;
- Investing in disaster reduction for resilience; and
- Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries over the next 15 years. It was adopted at the Third United Nations World Conference on Disaster Risk Reduction in Sendai, Japan in 2015. Figure 8 shows the Sendai DRR Framework.²⁰⁹

Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030

Scope and purpose

The present framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks. It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors

Expected outcome

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries

Goal

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience

Targets

Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015	Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015	Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030	Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030	Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020	Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030	Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030
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Priorities for Action

There is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas.



Figure 8: UN Sendai Framework for Disaster Risk Reduction 2015-2030

Hyogo Framework for Action Country Progress Report

The Hyogo Framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists participating countries to become more resilient and to better manage the hazards that threaten their development. The levels of progress of the 2013-2015 results of the HFA for Lao PDR are represented in Figure 9 and Table 3. Table 4 provides an overview of the overall challenges and the future outlook statement from the HFA report.²¹⁰ The 2013-2015 is the most recent HFA report available for Lao PDR.

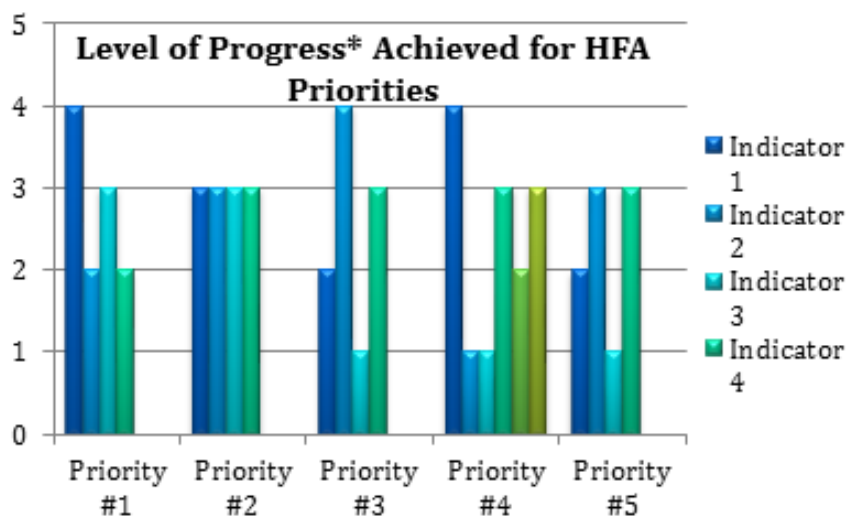


Figure 9: HFA Level of Progress Achieved

Note: The information in this section is taken directly from the HFA for Lao PDR.²¹¹

Priority for Action #1: Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.		
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.	2
3	Community Participation and decentralization is ensured through the delegation of authority and resources to local levels.	3
4	A national multi sectoral platform for disaster risk reduction is functioning.	2

Priority #2: Identify, assess and monitor disaster risks and enhance early warning		
Core Indicator*	Indicator Description	Level of Progress Achieved
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.	3
4	National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.	3

Table 3: Lao National Progress Report on the Implementation of the HFA 2013-2015

Priority #3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc.).	2
2	School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices.	4
3	Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.	1
4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.	3

Priority #4: Reduce the underlying risk factors

Core Indicator*	Indicator Description	Level of Progress Achieved
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.	4
2	Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.	1
3	Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities.	1
4	Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.	3
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

Priority #5: Strengthen disaster preparedness for effective response at all levels

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.	3
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.	3
3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.	1
4	Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.	3

Table 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

Table 3: Lao National Progress Report on the Implementation of the HFA 2013-2015 (cont.)

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:	The role and responsibilities of the Department of Disaster Management and Climate Change, Ministry of Natural Resources and Environment (DDMCC) as functioned as Secretariat for the National Disaster Prevention and Control Committee (NDPCC) need to be clarified. As DDMCC continues to grow, information management and information sharing will need to be more mainstreamed for plans and programming. Monitoring and evaluation for Disaster Risk Reduction (DRR) also remains low in the country. The legal framework will help establish how the DDMCC will work in disaster management, putting an emphasis on risk reduction.
Future Outlook Priorities:	Continue to develop key legal and regulatory framework, long with more delegation on disaster management tasks to the lower level as appropriate, in order to ensure the effective and on-time disaster risk management arrangement and longer term resilient building.

Future Outlook 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.	
Challenges:	Community work is project driven; therefore, some communities are much more developed than others in terms of planning and capacity at the local level. This type of work will likely continue until budget is allocated from the central level to cover all communities.
Future Outlook Priorities:	Improvement of disaster risk prevention approaches one step forward along with humanitarian assistance and relief; centralization of DRR projects and activities form commonly systematic management arrangement, in line with national policies and strategies; improve Disaster Risk Reduction/Management (DRR/M) internal and international-linked coordination and collaboration for more systematic, consistent and on-time basis.

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:	Lao PDR does not have an effective early warning system at the local level. This poses one problem for preparedness. In addition, there is no emergency operations center to coordinate preparedness and response. Horizontal and vertical design of program needs to take place, not only reaching all sectors at each level, but ensuring various sectors are working together at all levels.
Future Outlook Priorities:	Enhancement of disaster data and information management and dissemination to support planning and implementation; development and improvement of Emergency Warning Services (EWSs); and setup the National Emergency Centers with appropriate linkages to sectoral Emergency Operation Centers (EOCs) and other relevant institutions.

Table 4: HFA Country Progress Report Future Outlook Areas, Lao

Country Profile

The information in the Country Profile section is sourced directly from the CIA World Fact book²¹²

Background:

Modern-day Lao has its roots in the ancient Lao kingdom of Lan Xang, established in the 14th century under King Fa Ngum. For 300 years Lan Xang had influence reaching into present-day Cambodia and Thailand, as well as over all of what is now Laos. After centuries of gradual decline, Laos came under the domination of Siam (Thailand) from the late 18th century until the late 19th century, when it became part of French Indochina. The Franco-Siamese Treaty of 1907 defined the current Lao border with Thailand. In 1975, the communist Pathet Lao took control of the government, ending a six-century-old monarchy and instituting a strict socialist regime closely aligned to Vietnam. A gradual, limited return to private enterprise and the liberalization of foreign investment laws began in 1988. Laos became a member of ASEAN in 1997 and the WTO in 2013.

Geography:

Southeastern Asia, northeast of Thailand, west of Vietnam

Geographic coordinates:

18 00 N, 105 00 E

Map references:

Southeast Asia

Area:

Total: 236,800 sq km

Land: 230,800 sq km

Water: 6,000 sq km

Country comparison to the world: 85

Area - comparative:

About twice the size of Pennsylvania; slightly larger than Utah

Land boundaries:

Total: 5,274 km

Border countries (5): Burma 238 km, Cambodia 555 km, China 475 km, Thailand 1,845 km, Vietnam 2,161 km

Coastline:

0 km (landlocked)

Maritime claims:

None (landlocked)

Climate:

Tropical monsoon; rainy season (May to November); dry season (December to April)

Terrain:

Mostly rugged mountains; some plains and plateaus

Elevation:

Mean elevation: 710 m

Elevation extremes: lowest point: Mekong River 70 m

Highest point: Phu Bia 2,817 m

Natural resources:

Timber, hydropower, gypsum, tin, gold, gemstones

Land use:

Agricultural land: 10.6 percent

Arable land 6.2 percent; permanent crops 0.7 percent; permanent pasture 3.7 percent

Forest: 67.9 percent

Other: 21.5 percent (2011 est.)

Irrigated land:

3,100 sq km (2012)

Population - distribution:

Most densely populated area is in and around the capital city of Vientiane; large communities are primarily found along the Mekong River along the southwestern border; overall density is considered one of the lowest in Southeast Asia

Natural hazards: Floods, droughts

Environment - current issues:

Unexploded ordnance; deforestation; soil erosion; most of the population does not have access to potable water

Environment - international agreements:

Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Law of the Sea, Ozone Layer Protection Signed, but not ratified: none of the selected agreements

Geography - note:

Landlocked; most of the country is mountainous and thickly forested; the Mekong River forms a large part of the western boundary with Thailand

Population:

7,126,706 (July 2017 est.)

Country comparison to the world: 101

Nationality:

Noun: Lao(s) or Laotian(s)

Adjective: Lao or Laotian

Ethnic groups:

Lao 53.2 percent, Khmou 11 percent, Hmong 9.2 percent, Phouthay 3.4 percent, Tai 3.1 percent, Makong 2.5 percent, Katong 2.2 percent, Lue 2 percent, Akha 1.8 percent, other 11.6 percent
Note: the Laos Government officially recognizes 49 ethnic groups, but the total number of ethnic groups is estimated to be well over 200 (2015 est.)

Languages:

Lao (official), French, English, various ethnic languages

Religions:

Buddhist 64.7 percent, Christian 1.7 percent, none 31.4 percent, other/not stated 2.1 percent (2015 est.)

Age structure:

0-14 years: 32.76 percent (male 1,180,227/female 1,154,550)

15-24 years: 21.17 percent (male 749,312/female 759,677)

25-54 years: 36.7 percent (male 1,290,768/female 1,324,390)

55-64 years: 5.48 percent (male 190,627/female 199,673)

65 years and over: 3.89 percent (male 125,682/female 151,800) (2017 est.)

Dependency ratios:

Total dependency ratio: 60.2

Youth dependency ratio: 54

Elderly dependency ratio: 6.2

Potential support ratio: 16.1 (2015 est.)

Median age:

Total: 22.7 years

Male: 22.4 years

Female: 23 years (2016 est.)

Country comparison to the world: 172

Population growth rate:

1.5 percent (2017 est.)

Country comparison to the world: 78

Birth rate:

23.6 births/1,000 population (2017 est.)

Country comparison to the world: 63

Death rate:

7.4 deaths/1,000 population (2017 est.)

Country comparison to the world: 115

Net migration rate:

-1.1 migrant(s)/1,000 population (2017 est.)

Country comparison to the world: 139

Population distribution:

Most densely populated area is in and around the capital city of Vientiane; large communities are primarily found along the Mekong River along the southwestern border; overall density is considered one of the lowest in Southeast Asia

Urbanization:

Urban population: 40.7 percent of total population (2017)

Rate of urbanization: 4.13 percent annual rate of change (2015-20 est.)

Major urban areas - population:

Vientiane (capital) 997,000 (2015)

Sex ratio:

At birth: 1.04 male(s)/female

0-14 years: 1.02 male(s)/female

15-24 years: 0.99 male(s)/female

25-54 years: 0.97 male(s)/female

55-64 years: 0.96 male(s)/female

65 years and over: 0.83 male(s)/female

Total population: 0.99 male(s)/female (2016 est.)

Maternal mortality rate:

197 deaths/100,000 live births (2015 est.)

Country comparison to the world: 21

Infant mortality rate:

Total: 51.4 deaths/1,000 live births

Male: 56.8 deaths/1,000 live births

Female: 45.8 deaths/1,000 live births (2016 est.)

Country comparison to the world: 31

Life expectancy at birth:

Total population: 64.3 years

Male: 62.2 years

Female: 66.4 years (2016 est.)

Country comparison to the world: 182

Total fertility rate:

2.7 children born/woman (2017 est.)

Country comparison to the world: 65

Contraceptive prevalence rate:

49.8 percent (2011/12)

Health expenditures:

1.9 percent of GDP (2014)

Country comparison to the world: 191

Physician density:

0.18 physicians/1,000 population (2012)

Hospital bed density:

1.5 beds/1,000 population (2012)

Drinking water source:

Improved:

Urban: 85.6 percent of population

Rural: 69.4 percent of population

Total: 75.7 percent of population

Unimproved:

Urban: 14.4 percent of population

Rural: 30.6 percent of population

Total: 24.3 percent of population (2015 est.)

Sanitation facility access:**Improved:**

Urban: 94.5 percent of population

Rural: 56 percent of population

Total: 70.9 percent of population

Unimproved:

Urban: 5.5 percent of population

Rural: 44 percent of population

Total: 29.1 percent of population (2015 est.)

HIV/AIDS - adult prevalence rate:

0.3 percent (2016 est.)

Country comparison to the world: 86

HIV/AIDS - people living with HIV/AIDS:

11,000 (2016 est.)

Country comparison to the world: 94

HIV/AIDS - deaths:

<500 (2016 est.)

Major infectious diseases:

Degree of risk: very high

Food or waterborne diseases: bacterial and protozoal diarrhea, hepatitis A, and typhoid fever

Vector borne diseases: dengue fever and malaria (2016)

Obesity - adult prevalence rate:

3 percent (2014)

Country comparison to the world: 179

Children under the age of 5 years underweight:

26.5 percent (2012)

Country comparison to the world: 22

Education expenditures:

3.3 percent of GDP (2014)

Country comparison to the world: 147

Literacy:

Definition: age 15 and over can read and write

Total population: 79.9 percent

Male: 87.1 percent

Female: 72.8 percent (2015 est.)

School life expectancy (primary to tertiary education):

Total: 11 years

Male: 11 years

Female: 11 years (2015)

Child labor - children ages 5-14:

Total number: 175,138

Percentage: 11 percent (2006 est.)

Government

Country name:

Conventional long form: Lao People's Democratic Republic

Conventional short form: Laos

Local long form: Sathalanalat Paxathipatai Paxaxon Lao

Local short form: Mueang Lao (unofficial)

Etymology: name means “Land of the Lao [people]”

Government type:

Communist state

Capital:

Name: Vientiane (Viangchan)

Geographic coordinates: 17 58 N, 102 36 E

Time difference: UTC+7 (12 hours ahead of Washington, DC, during Standard Time)

Administrative divisions:

17 provinces (khoueng, singular and plural) and 1 capital city* (nakhon luang, singular and plural); Attapu, Bokeo, Bolikhamxai, Champasak, Houaphan, Khammouan, Louangnamtha, Louangphabang, Oudomxai, Phongsali, Salavan, Savannakhet, Viangchan (Vientiane)*, Viangchan, Xaignabouli, Xaisomboun, Xekong, Xiangkhouang

Independence:

19 July 1949 (from France)

National holiday:

Republic Day (National Day), 2 December (1975)

Constitution:

Previous 1947 (preindependence); latest promulgated 13-15 August 1991; amended 2003, 2015 (2016)

Legal system:

Civil law system similar in form to the French system

International law organization participation:

Has not submitted an ICJ jurisdiction declaration; non-party state to the ICCT

Citizenship:

Citizenship by birth: no

Citizenship by descent only: at least one parent must be a citizen of Laos

Dual citizenship recognized: no

Residency requirement for naturalization: 10 years

Suffrage:

18 years of age; universal

Executive branch:

Chief of state: President Bounnyang Vorachit (since 20 April 2016); Vice President Phankham Viphavan (since 20 April 2016)
Head of government: Prime Minister Thongloun Sisoulit (since 20 April 2016); Deputy Prime Ministers Bounthong Chitmani, Sonxai Siphandon, Somdi Douangdi (since 20 April 2016)

Cabinet: Council of Ministers appointed by the president, approved by the National Assembly
Elections/appointments: president and vice president indirectly elected by the National Assembly for a 5-year term (no term limits); election last held on 20 April 2016 (next to be held in 2021); prime minister nominated by the president, elected by the National Assembly for 5-year term election results: Bounnyang Vorachit (LPRP) elected president; Phankham Viphavan (LPRP) elected vice president; percent of National Assembly vote - NA; Thongloun Sisoulit (LPRP) elected prime minister; percent of National Assembly vote - NA

Legislative branch:

Description: unicameral National Assembly or Sapha Heng Xat (149 seats; members directly elected in multi-seat constituencies by simple majority vote from candidate lists provided by the Lao People's Revolutionary Party; members serve 5-year terms)
Elections: last held on 20 March 2016 (next to be held in 2021)
Election results: percent of vote by party - NA; seats by party - LPRP 144, independent 5

Judicial branch:

Highest court(s): People's Supreme Court (consists of the court president and organized into criminal, civil, administrative, commercial, family, and juvenile chambers, each with a vice president and several judges)

Judge selection and term of office: president of People's Supreme Court appointed by National Assembly on recommendation of the president of the republic for a 5-year term; vice presidents of People's Supreme Court appointed by the president of the republic on recommendation of the National Assembly; appointment of chamber judges NA; tenure of court vice presidents and chamber judges NA

Subordinate courts: appellate courts; provincial, municipal, district, and military courts

Political parties and leaders:

Lao People's Revolutionary Party or LPRP [Bounnyang Vorachit]

Note: other parties proscribed

Political pressure groups and leaders:

NA

International organization participation:

ADB, ARF, ASEAN, CP, EAS, FAO, G-77, IAEA, IBRD, ICAO, ICRM, IDA, IFAD, IFC, IFRC, ILO, IMF, Interpol, IOC, IPU, ISO (subscriber), ITU, MIGA, NAM, OIF, OPCW, PCA, UN, UNCTAD, UNESCO, UNIDO, UNWTO, UPU, WCO, WFTU (NGOs), WHO, WIPO, WMO, WTO

Diplomatic representation in the US:

Chief of mission: Ambassador MAI Xaignavong (since 3 August 2015)

Chancery: 2222 S Street NW, Washington, DC 20008

Telephone: [1] (202) 332-6416

Fax: [1] (202) 332-4923

Consulate(s): New York

Diplomatic representation from the US:

Chief of mission: Ambassador Rena Bitter (since 2 November 2016)

Embassy: Thadeua Road, Kilometer 9, Ban Somvang Tai, Hatsayfong District, Vientiane
Mailing address: American Embassy Vientiane, Unit 46222, APO AP 96546-6222

Telephone: [856] 21-48-7000

Fax: [856] 21-48-7190

Flag description:

Three horizontal bands of red (top), blue (double width), and red with a large white disk centered in the blue band; the red bands recall the blood shed for liberation; the blue band represents the Mekong River and prosperity; the white disk symbolizes the full moon against the Mekong River, but also signifies the unity of the people under the Lao People's Revolutionary Party, as well as the country's bright future

National symbol(s):

Elephant; national colors: red, white, blue

National anthem:

Name: "Pheng Xat Lao" (Hymn of the Lao People)

Lyrics/music: Sisana Sisane/Thongdy Sounthonevichit

Note: music adopted 1945, lyrics adopted 1975; the anthem's lyrics were changed following the 1975 Communist revolution that overthrew the monarchy

Economy - overview:

The government of Laos, one of the few remaining one-party communist states, began decentralizing control and encouraging private enterprise in 1986. Economic growth averaged more than 6 percent per year in the period 1988-2008, and Laos' growth has more recently been amongst the fastest in Asia, averaging nearly 8 percent per year for most of the last decade. However, growth has declined over the past year and is expected to be about 6.8 percent in 2017, according to the IMF.

Nevertheless, Laos remains a country with an underdeveloped infrastructure, particularly in rural areas. It has a basic, but improving, road system, and limited external and internal land-line telecommunications. Electricity is available to 83 percent of the population. Agriculture, dominated by rice cultivation in lowland areas, accounts for about 25 percent of GDP and 73 percent of total employment. Recently, the country has faced a persistent current account deficit, falling foreign currency reserves, and growing public debt, as slow recovery of the global economy, especially that of China, has driven down the prices of its mineral exports. Laos' economy is heavily dependent on capital-intensive natural resource exports. The economy has benefited from high-profile foreign direct investment in hydropower dams along the Mekong River, copper and gold mining, logging, and construction, although some projects in these industries have drawn criticism for their environmental impacts.

Laos gained Normal Trade Relations status with the US in 2004 and applied for Generalized System of Preferences trade benefits in 2013 after being admitted to the World Trade Organization earlier in the year. Laos held the chairmanship of ASEAN in 2016. Laos is in the process of implementing a value-added tax system. The government appears committed to raising the country's profile among foreign investors and has developed special economic zones replete with generous tax incentives, but a limited labor pool, a small domestic market, and corruption remain impediments to investment. Laos also has ongoing problems with the business environment, including onerous registration requirements, a gap between legislation and implementation, and unclear or conflicting regulations.

GDP (purchasing power parity):

\$40.9 billion (2016 est.)

\$38.24 billion (2015 est.)

\$35.59 billion (2014 est.)

Note: data are in 2016 dollars

Country comparison to the world: 114

GDP (official exchange rate):

\$13.79 billion (2016 est.)

GDP - real growth rate:

6.9 percent (2016 est.)

7.5 percent (2015 est.)

8 percent (2014 est.)

Country comparison to the world: 10

GDP - per capita (PPP):

\$5,700 (2016 est.)

\$5,400 (2015 est.)

\$5,200 (2014 est.)

Note: data are in 2016 dollars

Country comparison to the world: 165

Gross national saving:

25 percent of GDP (2016 est.)

20 percent of GDP (2015 est.)

25.8 percent of GDP (2014 est.)

Country comparison to the world: 53

GDP - composition, by end use:

Household consumption: 62.6 percent

Government consumption: 14.1 percent

Investment in fixed capital: 33.1 percent

Investment in inventories: 1 percent

Exports of goods and services: 47.2 percent

Imports of goods and services: -58 percent (2016 est.)

GDP - composition, by sector of origin:

Agriculture: 21.3 percent

Industry: 32.5 percent

Services: 39.4 percent (2016 est.)

Agriculture - products:

Sweet potatoes, vegetables, corn, coffee, sugarcane, tobacco, cotton, tea, peanuts, rice; cassava (manioc, tapioca), water buffalo, pigs, cattle, poultry

Industries:

Mining (copper, tin, gold, gypsum); timber, electric power, agricultural processing, rubber, construction, garments, cement, tourism

Industrial production growth rate:

8 percent (2016 est.)

Country comparison to the world: 12

Labor force:

3.5 million (2016 est.)

Country comparison to the world: 99

Labor force - by occupation:

Agriculture: 73.1 percent

Industry: 6.1 percent

Services: 20.6 percent (2012 est.)

Unemployment rate:

1.3 percent (2012 est.)

1.4 percent (2014 est.)

Country comparison to the world: 9

Population below poverty line:

22 percent (2013 est.)

Household income or consumption by percentage share:

Lowest 10 percent: 3.3 percent

Highest 10 percent: 30.3 percent (2008)

Distribution of family income - Gini index:

36.7 (2008)

34.6 (2002)

Country comparison to the world: 84

Budget:

Revenues: \$2.882 billion

Expenditures: \$3.822 billion (2016 est.)

Taxes and other revenues:

20.9 percent of GDP (2016 est.)

Country comparison to the world: 145

Budget surplus (+) or deficit (-):

-6.8 percent of GDP (2016 est.)

Country comparison to the world: 183

Public debt:

61.6 percent of GDP (2016 est.)

61.7 percent of GDP (2015 est.)

Country comparison to the world: 65

Fiscal year:

1 October - 30 September

Inflation rate (consumer prices):

2 percent (2016 est.)

1.3 percent (2015 est.)

Country comparison to the world: 122

Central bank discount rate:

4.3 percent (31 December 2010)

4 percent (31 December 2009)

Country comparison to the world: 84

Commercial bank prime lending rate:

16.5 percent (31 December 2016 est.)

18.2 percent (31 December 2015 est.)

Country comparison to the world: 30

Stock of narrow money:

\$1.161 billion (31 December 2016 est.)

\$1.132 billion (31 December 2015 est.)

Country comparison to the world: 151

Stock of broad money:

\$7.782 billion (31 December 2016 est.)

\$7.196 billion (31 December 2015 est.)

Country comparison to the world: 117

Stock of domestic credit:

\$8.135 billion (31 December 2016 est.)

\$7.231 billion (31 December 2015 est.)

Country comparison to the world: 110

Market value of publicly traded shares:

\$1.012 billion (2012 est.)

\$576.8 million (2011 est.)

Country comparison to the world: 106

Current account balance:

-\$2.35 billion (2016 est.)

-\$2.114 billion (2015 est.)

Country comparison to the world: 154

Exports:

\$3.075 billion (2016 est.)

\$2.928 billion (2015 est.)

Country comparison to the world: 125

Exports - commodities:

Wood products, coffee, electricity, tin, copper, gold, cassava

Exports - partners:

Thailand 30.4 percent, China 26.9 percent, Vietnam 17.5 percent (2015)

Imports:

\$3.936 billion (2016 est.)

\$4.058 billion (2015 est.)

Country comparison to the world: 130

Imports - commodities:

Machinery and equipment, vehicles, fuel, consumer goods

Imports - partners:

Thailand 60.9 percent, China 18.6 percent, Vietnam 7.3 percent (2015)

Reserves of foreign exchange and gold:

\$1.024 billion (31 December 2016 est.)

\$1.058 billion (31 December 2015 est.)

Country comparison to the world: 126

Debt - external:

\$11.98 billion (31 December 2016 est.)

\$10.77 billion (31 December 2015 est.)

Country comparison to the world: 105

Stock of direct foreign investment - at home:

\$15.14 billion (31 December 2012 est.)

\$12.44 billion (31 December 2011 est.)

Country comparison to the world: 89

Exchange rates:

Kips (LAK) per US dollar -

8,190.2 (2016 est.)

8,147.9 (2015 est.)

8,147.9 (2014 est.)

8,049 (2013 est.)

8,007.3 (2012 est.)

Electricity access:

Population without electricity: 900,000

Electrification - total population: 87 percent

Electrification - urban areas: 97 percent

Electrification - rural areas: 82 percent (2013)

Electricity - production:

16 billion kWh (2014 est.)

Country comparison to the world: 86

Electricity - consumption:

3.9 billion kWh (2014 est.)

Country comparison to the world: 125

Electricity - exports:

13 billion kWh (2014 est.)

Country comparison to the world: 15

Electricity - imports:

1.3 billion kWh (2014 est.)

Country comparison to the world: 59

Electricity - installed generating capacity:

3.4 million kW (2014 est.)

Country comparison to the world: 95

Electricity - from fossil fuels:

.7 percent of total installed capacity (2012 est.)

Country comparison to the world: 207

Electricity - from nuclear fuels:

0 percent of total installed capacity (2012 est.)

Country comparison to the world: 124

Electricity - from hydroelectric plants:

98.3 percent of total installed capacity (2012 est.)

Country comparison to the world: 8

Electricity - from other renewable sources:

0 percent of total installed capacity (2012 est.)

Country comparison to the world: 190

Crude oil - production:

0 bbl/day (2015 est.)

Country comparison to the world: 156

Crude oil - exports:

0 bbl/day (2013 est.)

Country comparison to the world: 151

Crude oil - imports:

0 bbl/day (2013 est.)

Country comparison to the world: 148

Crude oil - proved reserves:

0 bbl (1 January 2016 es)

Country comparison to the world: 155

Refined petroleum products - production:

0 bbl/day (2013 est.)

Country comparison to the world: 161

Refined petroleum products - consumption:

3,500 bbl/day (2014 est.)

Country comparison to the world: 184

Refined petroleum products - exports:

0 bbl/day (2013 est.)

Country comparison to the world: 169

Refined petroleum products - imports:

3,480 bbl/day (2013 est.)

Country comparison to the world: 176

Natural gas - production:

0 cu m (2013 est.)

Country comparison to the world: 153

Natural gas - consumption:

0 cu m (2013 est.)

Country comparison to the world: 200

Natural gas - exports:

0 cu m (2013 est.)

Country comparison to the world: 134

Natural gas - imports:

0 cu m (2013 est.)

Country comparison to the world: 146

Natural gas - proved reserves:

0 cu m (1 January 2014 es)

country comparison to the world: 199

Carbon dioxide emissions from consumption of energy:

500,000 Mt (2013 est.)

Country comparison to the world: 182

Telephones - fixed lines:

Total subscriptions: 1,266,605

Subscriptions per 100 inhabitants: 18 (July 2016 est.)

Country comparison to the world: 81

Telephones - mobile cellular:

Total: 3.727 million

Subscriptions per 100 inhabitants: 54 (July 2016 est.)

Country comparison to the world: 122

Telephone system:

General assessment: service to public is generally improving; the government relies on a radiotelephone network to communicate with remote areas

Domestic: mobile cellular network coverage including 3G is relatively widespread, although usage has slowed as the regulator imposed a strict policy on pricing and competition is effectively discouraged; network performance has suffered because of insufficient maintenance and upgrades
International: country code - 856; satellite earth station - 1 Intersputnik (Indian Ocean region) and a second to be developed by China (2017)

Broadcast media:

6 TV stations operating out of Vientiane - 3 government-operated and the others commercial; 17 provincial stations operating with nearly all programming relayed via satellite from the government-operated stations in Vientiane; Chinese and Vietnamese programming relayed via satellite from Lao National TV; broadcasts available from stations in Thailand and Vietnam in border areas; multi-channel satellite and cable TV systems provide access to a wide range of foreign stations; state-controlled radio with state-operated Lao National Radio (LNR) broadcasting on 5 frequencies - 1 AM, 1 SW,

and 3 FM; LNR's AM and FM programs are relayed via satellite constituting a large part of the programming schedules of the provincial radio stations; Thai radio broadcasts available in border areas and transmissions of multiple international broadcasters are also accessible (2012)

Internet country code: .la

Internet users:

Total: 1.258 million

Percent of population: 18.2 percent (July 2016 est.)

Country comparison to the world: 142

National air transport system:

Number of registered air carriers: 1

Inventory of registered aircraft operated by air carriers: 11

Annual passenger traffic on registered air carriers: 1,181,187

Annual freight traffic on registered air carriers: 1,356,497 mt-km (2015)

Civil aircraft registration country code prefix: RDPL (2016)

Airports:

41 (2013)

Country comparison to the world: 103

Airports - with paved runways:

Total: 8

2,438 to 3,047 m: 3

1,524 to 2,437 m: 4

914 to 1,523 m: 1 (2013)

Airports - with unpaved runways:

Total: 33

1,524 to 2,437 m: 2

914 to 1,523 m: 9

Under 914 m: 22 (2013)

Pipelines:

Refined products 540 km (2013)

Roadways:

Total: 39,586 km

Paved: 5,415 km

Unpaved: 34,171 km (2009)

Country comparison to the world: 89

Waterways:

4,600 km (primarily on the Mekong River and its tributaries; 2,900 additional km are intermittently navigable by craft drawing less than 0.5 m) (2012)

Country comparison to the world: 23

Military expenditures:

0.2 percent of GDP (2013)

0.22 percent of GDP (2012)

0.23 percent of GDP (2011)

Military branches:

Lao People's Armed Forces (LPAF): Lao People's Army (LPA, includes Riverine Force), Air Force (2011)

Military service age and obligation:

18 years of age for compulsory or voluntary military service; conscript service obligation - minimum 18-months (2012)

Military - note: Serving one of the world's least developed countries, the Lao People's Armed Forces (LPAF) is small, poorly funded, and ineffectively resourced; its mission focus

is border and internal security, primarily in countering ethnic Hmong insurgent groups; together with the Lao People's Revolutionary Party and the government, the Lao People's Army (LPA) is the third pillar of state machinery, and as such is expected to suppress political and civil unrest and similar national emergencies; there is no perceived external threat to the state and the LPA maintains strong ties with the neighboring Vietnamese military (2012)

Disputes - international:

Southeast Asian states have enhanced border surveillance to check the spread of avian flu; talks continue on completion of demarcation with Thailand but disputes remain over islands in the Mekong River; Cambodia and Laos have a longstanding border demarcation dispute; concern among Mekong River Commission members that China's construction of eight dams on the Upper Mekong River and construction of more dams on its tributaries will affect water levels, sediment flows, and fisheries; Cambodia and Vietnam are concerned about Laos' extensive plans for upstream dam construction for the same reasons

Trafficking in persons:

Current situation: Laos is a source and, to a lesser extent, transit and destination country for men, women, and children subjected to forced labor and sex trafficking; Lao economic migrants may encounter conditions of forced labor or sexual exploitation in destination countries, most often Thailand; Lao women and girls are exploited in Thailand's commercial sex trade, domestic service, factories, and agriculture; a small, possibly growing, number of Lao women and girls are sold as brides in China and South Korea and subsequently sex trafficked; Lao men and boys are victims of forced labor in the Thai fishing, construction, and agriculture industries; some Lao children, as well as Vietnamese and Chinese women and girls, are subjected to sex trafficking in Laos; other Vietnamese and Chinese, and possibly Burmese, adults and girls transit Laos for sexual and labor exploitation in neighboring countries, particularly Thailand
Tier rating: Tier 2 Watch List – Laos does not fully comply with the minimum standards for the elimination of trafficking; however, it is making significant efforts to do so; authorities sustained moderate efforts to investigate, prosecute, and convict trafficking offenders; the government failed to make progress in proactively identifying

victims exploited within the country or among those deported from abroad; the government continues to rely almost entirely on local and international organizations to provide and fund services to trafficking victims; although Lao men and boys are trafficked, most protective services are only available to women and girls, and long-term support is lacking; modest prevention efforts include the promotion of anti-trafficking awareness on state-controlled media (2015)

Illicit drugs:

Estimated opium poppy cultivation in 2015 was estimated to be 5,700 hectares, compared with 6,200 hectares in 2014; estimated potential production of between 84 and 176 mt of raw opium; unsubstantiated reports of domestic methamphetamine production; growing domestic methamphetamine problem

Acronyms and Abbreviations

Acronym	Definition
ADB	Asian Development Bank
ADMMER	ASEAN Agreement on Disaster Management and Emergency Response
ADMM-Plus	The Association of Southwest Nations Defense Minister's Meeting
ADPC	Asian Disaster Preparedness Center
AFTA	ASEAN Free Trade Agreement
BPKP	Bolisat Phatthana Khet Phoudoi
ASEAN	Association of Southeast Asian Nations
CBDRR	Community-Based Disaster Risk Reduction
CEADW	Convention on the Elimination of All Forms of Discrimination against Women
CFE-DM	Center for Excellence in Disaster Management and Humanitarian Assistance
CIA	Central Intelligence Agency
DDMCC	Department of Disaster Management and Climate Change, Ministry of Natural Resources and Environment
DHO	District Health Offices
DM	Disaster Management
DMC	Disaster Management Committees
DMH	Department of Meteorology and Hydrology
DMHA	Disaster Management and Humanitarian Assistance
DOS	U.S. Department of State
DPCC	Disaster Prevention and Control Committees
DR	Disaster Risk
DREE	Disaster Response Exercise and Exchange
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRR/M	Disaster Risk Reduction/Management
EOC	Emergency Operation Center
EWS	Early Warning Systems
FIMC	Foreign Investment Management Cabinet
GDP	Gross Domestic Product
GMS	Greater Mekong Sub-Region
GTS	Global Telecommunications System
HFA	Hyogo Framework for Action
HGNDP	Health Governance and Nutrition Development Project
IDD	International Direct Dialing
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Countries
LFNC	Lao Front for National Construction
LFTU	Lao Federation of Trade Unions
LMI	Lower Mekong Initiative
LPDR	Lao People's Revolutionary Party
LPQ	Luang Prabang International Airport
LPRP	Lao People's Revolutionary Party
LPRYU	Lao People's Revolutionary Youth Union

Acronym	Definition
LWU	Lao Women's Union
MCH	Mother and Child Health
MDGs	Millennium Development Goals
MLSW	Ministry of Labor and Social Welfare
MoE	Ministry of Education
MoES	Ministry of Education and Sports
MoH	Ministry of Health
MRC	Mekong River Commission
NA	National Assembly
NASRET	National Search and Rescue Team
NCAW	National Commission for the Advancement of Women
NDMC	National Disaster Management Committee
NDMO	National Disaster Management Office
NDPC	National Disaster Prevention Committee
NDPCC	National Disaster Prevention and Control Committee
NESDP	National Socio-Economic Development Plan
NGO	Non-Governmental Organization
NSCC	National Strategy on Climate Change
PACAF	U.S. Pacific Air Force
PDMC	Provincial Disaster Management Committee
PDR	People's Democratic Republic
PHO	Provincial Health Offices
PKZ	Pakse International Airport
SEADRIF	Southeast Asia Disaster Risk Insurance Facility
USARPAC	United States Army Pacific
U.S.	United States
UN	United Nations
UNDP	United National Development Program
UNFPA	United Nations Population Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNODC	United Nations Office on Drugs and Crime
UXO	Unexploded Ordnance
VDPCC	Village Disaster Prevention and Control Committees
VDPU	Village Disaster Prevention Unit
VTE	Wattay International Airport
WHO	World Health Organization
WTO	World Trade Organization

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