APP
ASIAN PREPAREDNESS PARTNERSHIP

Cambodia Baseline Assessment Country Report

Program for Strengthening Capacity of Governments, Local Humanitarian Organizations and the Private Sector on Preparedness for Emergency Response in Asia

ADPC
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Acknowledgements

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Foreword

The Preparedness Partnership of Cambodia (PPC) was established as a national multi-stakeholder platform under the Asian Preparedness Partnership (APP) to improve humanitarian leadership and coordination among national and local humanitarian actors for disaster preparedness, emergency response and recovery. PPC is a partnership between the government, specifically the National Committee for Disaster Management (NCDM), the Cambodia Humanitarian Forum (CHF) representing the LNGO network, and the Federation of Associations for Small and Medium Enterprises of Cambodia (FASMEC) representing the Private Sector Network.

The PPC is an upscaling of the work completed under the Cambodian Humanitarian Forum which was created in May 2012 under a pilot project implemented by Asian Disaster Preparedness Center (ADPC) with support from the United States Agency for International Development (USAID)/ Office of U.S. Foreign Disaster Assistance (OFDA), in cooperation with NCDM, the Royal University of Phnom Penh (RUPP), and Partnership for Development of Kampuchea (PADEK). It successfully led to strengthening of the local humanitarian network and paved the way for enhancing the capacity of stakeholders and communities involved in emergency response.

The Baseline Assessment Report will help the local actors to understand the existing gaps and to identify areas that require strengthening for improving the local level leadership in preparedness to response. The study has revealed strengths and weaknesses of the local humanitarian actors in the key aspects of emergency response such as coordination, technical capacities, and communication during emergencies. Importantly, the study has also focused on disaster preparedness for the private sector and the need to focus on business resilience and invest in business continuity management. We, NCDM, PADEK/CHF and FASMEC would like to extend our thanks to ADPC and the Bill and Melinda Gates Foundation (BMGF) for opening this window of opportunity in Cambodia and working towards building resilient communities.

Preparedness Partnership of Cambodia

Contents

Acronyms and Abbreviations

AAL	Annual Average Loss
ADPC	Asian Disaster Preparedness Center
APP	Asian Preparedness Partnership
CCA	Climate Change Adaptation
CCDM	Commune Committee for Disaster Management
CHF	Cambodian Humanitarian Forum
CHS	Core Humanitarian Standards
CRC	Cambodia Red Cross
CSR	Corporate Social Responsibility
DCDM	District Committee for Disaster Management
DEM	Digital Evaluation Model
DRM	Disaster Risk Mitigation
DRR	Disaster Risk Reduction
DM	Disaster Management
EI	Education Index
EOC	Emergency Operation Centre
ER	Emergency Response
ERW	Landmine and Explosive Remnants of War
EWS	Early Warning System
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GAR 09	Global Assessment Report 2009
GDI	Gender Development Index
GDP	Gross Domestic Product
GII	Gender Inequality Index
HANet	Intern for Humanitarian Accountabilities Network
HAP	Humanitarian Accountability Partnership
HRF	Humanitarian Response Forum
HO	Humanitarian Organizations
ICT	Information Communication Technologies
IDI	ICT Development Index
IFRC	International Federation of Red Cross and Red Crescent Societies
INGOs	International Non-Governmental Organizations
IM	Information Management
JAG	Joint Action Group
KII	Key Informant Interview
KWWA	Kratie Women's Welfare Association (Cambodia)
LANGO	Law on Association and NGO
LECZ	Low Evaluation Coastal Zone
LNGO	Local Non-governmental Organization
MAFF	Ministry of Agriculture, Forestry, and Fisheries
MDG	Millennium Development Goals
MFAIC	Ministry of Foreign Affairs and International Cooperation
MoEYS	Ministry of Education Youth and Sport
MoH	Ministry of Health
MOI	Ministry of Interior
MOP	Ministry of Planning
MOWA	Ministry of Women Affairs
MoWRAM	Ministry of Water Resources and Meteorology
MPWT	Ministry of Public Works and Transport
MRD	Ministry of Rural Development
M&E	Monitoring and Evaluation
NCD	Non-communicable Diseases
NCDM	National Committee for Disaster Management
NGO	Non-governmental Organization
NR	Neary Rattanak
NSDP	National Strategic Development Plan
OFDA	Office of U.S. Foreign Disaster Assistance
PCDM	Provincial Committee for Disaster Management
PADEK	Partnership for Development in Kampuchea
PPP	Purchasing Power Parity
RRT	Rapid Response Team
RS	Rectangular Strategy
RUPP	Royal University of Phnom Penh
RUA	Royal University of Agriculture
SDGs	Sustainable Development Goals
SFDRR	Sendai Framework on DRR
SNAP	Strategic National Action Plan
SOP	Standard Operation Procedures
SPHERE	Minimum Standards for Humanitarian Response
TOT	Training of Trainers
UN	United Nations
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

Executive Summary

The Asian Disaster Preparedness Center (ADPC), in collaboration with the Bill and Melinda Gates Foundation, has launched the program Strengthening Capacity of Government, Local Humanitarian Organizations and the Private Sector on Preparedness for Emergency Response in six Asian countries: Cambodia, Myanmar, Nepal, Pakistan, the Philippines, and Sri Lanka. Each country has undertaken a Country Specific Baseline Survey to understand the current context and engagement of government entities, the private sector, local NGOs/civil society organizations, international organizations, academia, and the media in emergency response. These country reports will be summarized into a Regional Synthesis Report for the six countries to provide comparisons for the implementation of the program.

This Baseline Assessment Report aims to summarize findings on the humanitarian ecosystem in Cambodia to understand important areas for strengthening capacity for a more effective humanitarian response.

Due to its geographic and climate conditions, Cambodia is among the top at-risk countries for natural hazards in Asia. Floods and droughts are two major hazards that threaten the country and have caused enormous deaths and damages. The frequency of natural disasters and weaknesses of humanitarian actors who can timely and effectively respond during emergency events exacerbate the vulnerability of the Cambodian people, especially the poor living remotely along the Mekong River and around the Tonle Sap Lake.

The disaster management and response in Cambodia falls under the direct leadership of the National Committee for Disaster Management (NCDM), the humanitarian lead authority of the Royal Government of Cambodia, in partnership with local and international non-governmental organizations. The main responsibility of NCDM is to facilitate and support the intra and inter-ministerial coordination of its member agencies and other stakeholders in Disaster Risk Management in accordance with the laws on Disaster Management (LDM). Other humanitarian actors involved include UN agencies and the Cambodian Red Cross (CRC). Currently there are two humanitarian platforms within the country; the Cambodian Humanitarian Forum (CHF) is the local platform, and the international NGO platform is called the Humanitarian Response Forum (HRF). The government considers CRC as their key partner in emergency relief operations. There are a limited number of private sector stakeholders taking part in humanitarian actions, including the mass media and educational institutions. This report highlights

the findings from a thorough assessment of 87 participating governmental and non-governmental institutions, INGOs, the private sector, the media and academic institutions. This in-country situational analysis of the humanitarian ecosystem includes a stakeholder analysis using structured questionnaires, focus group discussions (FGDs), and key informant interviews (KII).

This baseline assessment revealed:

- Local and national humanitarian institutions have a strong willingness to build disaster resilience, but they possess limited capacity to undertake disaster risk management actions.
- Local Humanitarian Actors (local NGOs and Civil Society Organizations) do not have adequate capacity to take a leading role in prioritization and coordination with government and delivery of humanitarian response activities.
- The cooperation and coordination within governmental organizations, and within LNGOs is strong; however, there is a lack of cooperation and coordination between other stakeholders.
- INGOs are credited as the main sources of technical and capacity assistance, and they take a leadership role in establishing networks.
- Emergency response and recovery operations are not yet well-coordinated and there is a demand for capacity building among the concerned stakeholders in these areas.
- There is a gap in production of knowledge products and sharing of knowledge and information among stakeholders.

These findings suggest that Cambodia requires further financial and technical support to strengthen the local capacity and preparedness for emergency response. Since existing mechanisms and national coordinating platforms are in place, assistance may be most effective if aimed at strengthening these mechanisms by providing leadership and systematic networking arrangements. The next priority is to invest in human resource development for both the government and NGOs through specific provisions of Emergency Response and Assessment Tools. Additionally, humanitarian capacity at the sub-national level and coordination with at-risk communities should not be overlooked.

Cambodia Baseline Assessment Country Report

Preamble

The program on *Strengthening Capacity of Government, Local Humanitarian Organizations, and the Private Sector on Preparedness for Response* is being implemented by ADPC in collaboration with the Bill and Melinda Gates Foundation (BMGF) to improve emergency response preparedness in six Asian countries: Cambodia, Myanmar, Nepal, Pakistan, the Philippines, and Sri Lanka. Selection of the countries was based on the extent of each country's current vulnerability and risk.

The objectives of the program are as follows:

- To improve humanitarian leadership and coordination through systematic and local institutional strengthening
- To attain better coordination of humanitarian actions by enhancing humanitarian information management and knowledge exchange
- To establish more effective partnerships among national and local humanitarian actors

The goal is to improve the collaboration and south-south knowledge and information exchange between participating countries leading to the formation of the **Asian Preparedness Partnership** (APP) in the region.

Outline of the Baseline Survey

The Baseline Survey has the following objectives:

- To map the status of humanitarian capacity for managing humanitarian crises at the institutional, organizational, strategical, and operational levels and provide a baseline against which the progress and the impact of the program can be measured
- To establish a strategic roadmap for strengthening the humanitarian institutional leadership capacity based on country needs to streamline the responses and early recovery

The Methodology for the Baseline Survey

The selection of organizations was based on their active involvement in humanitarian work in Cambodia. Among the government organizations selected, 33 represented National Committee for Disaster Management (NCDM) and its provincial branches. The other five respondents were from the ministries directly involved in Disaster Risk Management (DRM). These included the Ministry of Rural Development (MRD), Ministry of Education Youth and Sport (MoEY), Ministry of Planning (MoP), Ministry of the Interior (MoI), and Ministry of Health (MoH). Thirty-two LNGOs involved in humanitarian work were identified, and 27 participated in the assessment.

Fifteen INGOs and five Cambodian Red Cross Organizations participated from the national and provincial levels. Out of the 14 private sector organizations selected, only three participated. All four academic institutes that were selected took part in the Focus Group Discussion. There were five UN organizations selected. However, their involvement was mainly in the Focus Group Discussion.

The sample for the baseline assessment was as follows:

NCDM and PCDM	33
Central Government Ministries	5
Cambodia Red Cross	5
Local NGOs	32
Private Sector Entities	3
International NGOs	15
Academic Institutions	4
UN Organizations	5

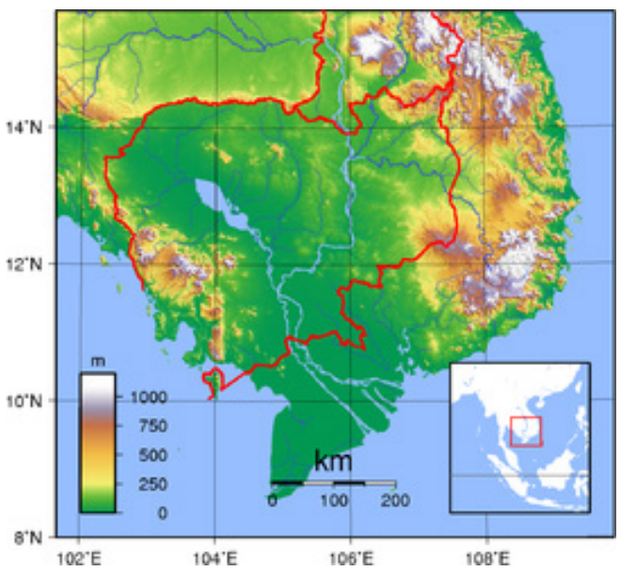
The instruments used for data collection were as follows:

- Literature Review
- 113 Structured Questionnaires
- 20 Key Informant Interviews (KIIs)
- 1 Focus Group Discussion (FGD)

English and Khmer languages were used at the preference of the interviewees. Data were analyzed and entered into a database using Survey Monkey tools.[1] The results were validated at a workshop with participating stakeholders.

Figure 1 Geographical Location of Cambodia[2]

Figure 2 Topography of Cambodia[3]



Country Overview

Cambodia is located in Southeast Asia, covering 181,040 sq. km^2 in the southwestern part of the Indochina peninsula. It lies completely within the tropics. Roughly square in shape, the country is bordered on the north by Thailand and Laos, on the east and southeast by Vietnam, and on the west by the Gulf of Thailand. Much of the country's area consists of rolling plains. Dominant

1 www.surveymonkey.com

2 http://www.adrc.asia/countryreport/KHM/2013/KHM_CR2013B.pdf

3 https://en.wikipedia.org/wiki/Geography_of_Cambodia

features are the large, almost centrally located Tonle Sap (Great Lake) and the Mekong River, which traverses the country from north to south. Nearly 75% of the land is alluvial flood-plains of the Tonlé Sap basin, with the lower Mekong River and the Bassac River plain forming central wetlands where paddy is the predominant cultivation.

Cambodia's low mountain ranges from the walls of the wetland bowl. To the north is the Dangrek Mountains plateau, bordering Thailand and Laos. To the north-east is the Annamite Range, to the south-west are the Cardamom Mountains and to the south are the Elephant Mountains.

Climate

The climate is tropical with two monsoon periods.[4] The southwest monsoon is the wet season from May to November, drawing moist air landward from the ocean with the heaviest rainfall from September to October. The northeast monsoon (November through March) is the dry season with two distinct periods, the cool dry season and the hot dry season. There is little change in average annual mean temperature of around 25°C. Maximum temperatures of higher than 32°C are common just before the start of the rainy season and may rise to more than 38°C. Minimum temperatures rarely fall below 10°C. January is the coolest month, and April is the warmest. Figure 3 depicts average conditions of precipitation and temperature; and Figure 4 depicts land use across the country.

Much of the cultivation is on the alluvial plains which are prone to flooding. Since the country is heavily dependent on the agricultural sector, with about 84% of the population dependent on farming, floods, drought, and insect outbreaks have severe effects on rural livelihoods.[5]

Figure 3 Average Temperatures and Precipitation[6]

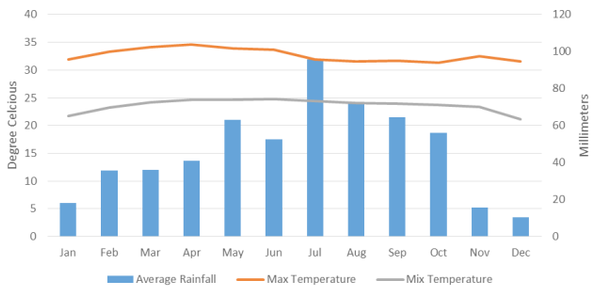
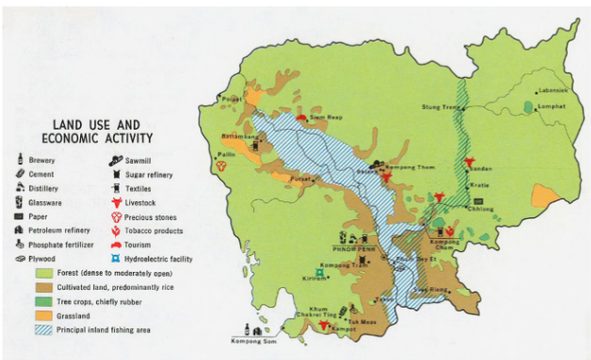


Figure 4 Land Use and Economic Activity[7]



Source: Cambodia Corps

Demography and Culture

The Cambodian population is estimated at 16 million based on 2013 census data. Most people in Cambodia refer to their culture and ethnicity as Khmer. Khmer is the official language of Cambodia and is the ethnic identity of nearly 90% of the population. English is commonly used due to Cambodia's recent transformation towards a market economy and consequent globalization process. French is spoken to a lesser extent.[8]

The indigenous ethnic minorities, known as Khmer Loeu, living in remote mountain areas speak the Loeu dialect. Non-indigenous ethnic

4 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf
5 Vulnerability and Adaptation Assessment to Climate Change in Cambodia (2001) Ministry of Environment.
6 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf
7 http://www.lib.utexas.edu/maps/cambodia.html
8 https://www.justlanded.com/english/Cambodia/Cambodia-Guide/Language/Languages-in-Cambodia

minorities in Cambodia include immigrants and their descendants. The three most prominent groups are the Chinese, Vietnamese, and Cham people. Cham is spoken by the Cham people. There are also minority groups of Thai and Laotians. Together, the minority groups comprise nearly 10% of the population.[9]

Buddhism is the official religion of the country, and an estimated 96% of the population are Buddhists. About 2% of Cambodians practice Islam, mostly among the Cham, while other faiths are practiced by 1-2% of the population. Most Christians were converted while refugees living in camps in neighboring countries.[10]

Administrative System

The Prime Minister is the head of the government. The National Assembly is established under the Constitution of 1993 constituted by 123 elected members. The Constitution was amended in March 1999 to establish the Senate, a new legislative body. The Constitution declares liberal democracy and a multiparty system as the foundations of the political regime of the Kingdom of Cambodia.[11]

Administratively, Cambodia is divided into 24 provinces with one capital city, Phnom Penh (Figure 5). Provinces are subdivided into 159 districts, 8 Khans, and 26 cities, and 1,621 communes.[12] Figure 5 depicts these divisions.

At the national level, there are more than 20 different ministries covering various areas including national defense, culture, art, etc. At the sub-national level, the administration is at provincial and district levels. Some ministries have line agencies down to the sub-national level,

Figure 5 Administrative Divisions[13]

such as the Ministry of Agriculture, Forestry, and Fisheries (MAFF), while others do not have clear agencies at the district level, such as the Ministry of Environment.

Local Governance

In 2001, Cambodia enacted two laws pertinent to local governance, specifically a law on the administration and management of communes and a law on commune council elections.[14] The commune council is the lowest level of the Cambodian public administration system. While communes have administrative boundaries on a map, they are divided into villages whose administrative boundaries are not yet available.

Hazards

A hazard is a process, phenomenon, or human activity that may cause loss of life or injury,

9 2013 Census
10 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf
11 www.cambodia.org/facts
12 The administrative unit such as commune and villages are subject to increase depending on the population and land availability. For the last update of the number of communes during commune election, the number was 1,664 communes.
13 http://www.stat.go.jp/info/meetings/cambodia/pdf/00dis_mp.pdf
14 https://asiafoundation.org/resources/pdfs/CambodiaLocalGovenance.pdf

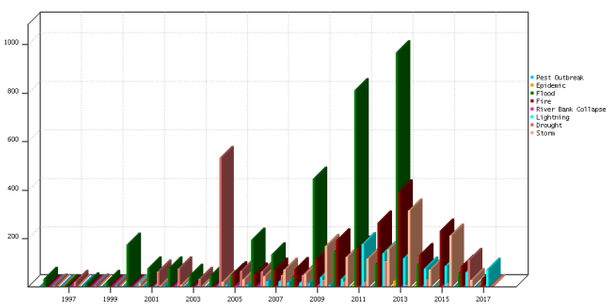
other health impacts, property damage, social and economic disruption, or environmental degradation.[15]

Cambodia is one of the most disaster-prone countries in the world, ranked eighth in the United Nations University's most recent World Risk Index,[16] and first in the Standard and Poor's Index of countries vulnerable to the impacts of climate change.[17]

According to National Committee on Disaster Management (NCDM), natural disasters in Cambodia include floods, fire, typhoons/tropical storms, droughts, lightning, pest infestations, post-disaster epidemic, and collapse of river banks.

DesInventar Database Cambodia,[18] reveals that floods, droughts, lightning, and pest infestations are the major hazards in that order as seen in Figure 6.

Figure 6 Number of Disasters over Time



Climate change is a concern for Cambodia due to its reliance on rain-fed subsistence agriculture.

15 http://www.preventionweb.net/english/professional/terminology/v.php?id=488

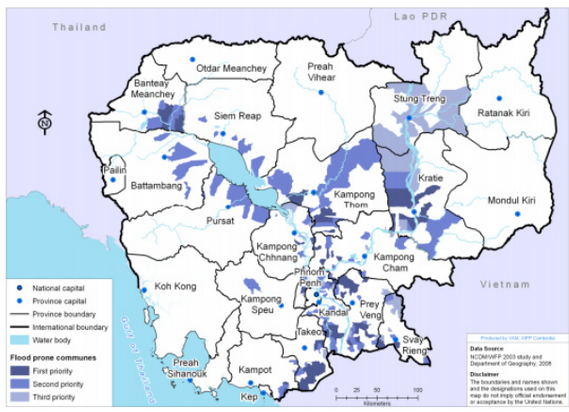
16 UNU-EHS, 2013. World Risk Report 2013, United Nations University Institute for Environmental and Human Security. Ac http://worldriskreport.entwicklung-hilft.de/uploads/media/WorldRiskReport_2013_online_01.pdf

17 S&P, 2014. Climate Change is a Global Mega-Trend for Sovereign Risk. Standard and Poor. http://www.acclimatise.uk.com/login/uploaded/resources/climate-change-is-a-global-mega-trend-for-sovereign-risk-15-may-14-.pdf

18 https://www.desinventar.org/

Water scarcity and frequent flooding are primary concerns that are expected to affect crop production and food security.[19] An increase in the annual mean temperatures due to climate change may also escalate the pest infestations on crops and livestock and increase the prevalence of epidemics such as dengue and malaria. Figure 7 shows the inundation due to major floods in 2000 and 2001. Comparing this with Figure 4 on land use shows the extent of impact on agricultural land.

Figure 7 Major Flood-prone Areas in Cambodia[20]



Floods in Cambodia typically occur due to the overflowing of the Mekong River and Tonle Sap Lake. Major floods have affected Cambodia in 1961, 1966, 1978, 1991, 2000, 2011, and 2013. In 2011, Cambodia was affected by one of the worst floods of the last decade. A total of 247 people were killed, and 1.6 million people were affected. More than 46,000 families were evacuated and 214,000 displaced. Nearly 10% of the country's agricultural crops were destroyed by the floods. The UN's Food and Agriculture Organization (FAO) estimated that more than 716,000 acres of rice paddy (28% of the total crop) were destroyed. Cambodia's NCDM estimates that the

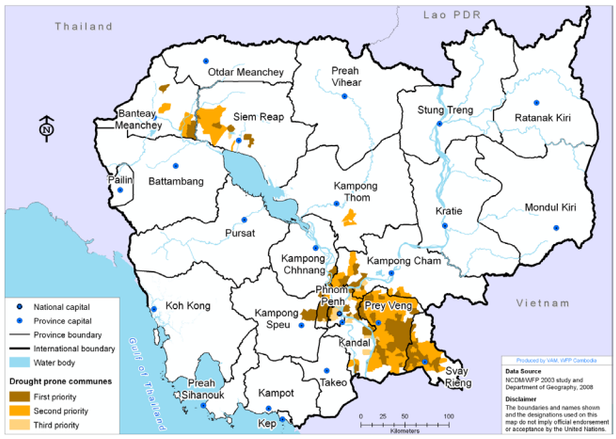
19 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf

20 http://www.adrc.asia/countryreport/KHM/2013/KHM_CR2013B.pdf

total economic damage from natural disasters in 2011 reached 500 million USD, largely due to flooding.[21]

Droughts occur regularly, although the frequency varies from province to province, with Kampong Speu, Takeo, and Battambang being the provinces most affected (see Figure 8). On a national scale, there have been droughts in 2002, 2003, 2004, and 2016. The 2016 drought due to the impact of 2015 El Nino was the worst recorded in recent times. NCDM estimated that nearly 2.5 million people in Cambodia were affected across all provinces.[23]

Figure 8 Major Drought-prone Areas in Cambodia[22]



Typhoon Ketsana struck northeastern Cambodia in September 2009 after hitting Vietnam and the Philippines, which was one of the most severe storms in the country's history. The worst damage occurred in Kampong Thom Province in the central part of the country. Approximately 14 out of 23 provinces were affected. Forty-three people were reported killed and more than 66,000 families were displaced by floodwaters. The Post Disaster Needs Assessment conducted by the Cambodian NCDM reported that typhoon Ketsana caused 132 million USD in damages.[24]

Over 64,000 landmine and Explosive Remnants of War (ERW) casualties have been recorded in Cambodia since 1979, resulting in over 25,000 amputations. However, deaths from landmines and unexploded ordnances have fallen from a high of 4,320 in 1996 to 286 in 2010. Demining has cleared approximately 270 square miles, but there are still 250 square miles of contaminated land remaining. Currently, 23 to 31 square miles are cleared each year. With more than two decades of humanitarian demining, the landmine threat is now largely concentrated in just 21 north-west border districts.[25]

Vulnerability

Vulnerability connotes the conditions determined by physical, social, economic, and environmental factors or processes that increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards.[26]

Authors Cardorna and Carreno[27] and Wisner[28] discuss the use of the Prevalent Vulnerability Index (PVI), which is comprised of a series of indicators to benchmark vulnerability that characterizes prevailing vulnerability conditions reflected in exposure in vulnerability-prone areas, socioeconomic fragility, and lack of resilience in general. The UNISDR publication, Global Assessment Report (GAR 2009), categorizes them as Proxy Indicators (PIs), which cover economic

21 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf
22 http://www.adrc.asia/countryreport/KHM/2013/KHM_CR2013B.pdf
23 http://www.caritascambodia.org/index.php/cambodia-drought-emergency-appeal-201
24 Cambodia Disaster Management Reference Handbook 2014. https://reliefweb.int/sites/reliefweb.int/files/resources/CambodiaHandbook_RevisedMar3_HiRes_Single.pdf
25 www.halotrust.org
26 http://www.preventionweb.net/english/professional/terminology/v.php?id=508
27 Cardona, O. & Carreño, M. (2013). System of indicators of disaster risk and risk management for the Americas: Recent updating and application of the IDB-IDEA approach. In J. Birkmann (Ed.), Measuring vulnerability to natural hazards (2d ed.) (pp. 251–276). Tokyo: United Nations University Press.
28 Wisner, Benjamin (2016), Vulnerability as Concept, Model, Metric, and Tool. http://naturalhazardscience.oxfordre.com/view/10.1093/acrefore/9780199389407.001.0001/acrefore-9780199389407-e-25.

Table 1

Proxy Indicators of Prevalent Vulnerability

Selected Indicators for Demography	
Population (millions) 2015	15.6
% Urban Population 2015	20.7
% below 15 years	31.4
% 15 – 64 years	64.63
% over 65 years	4.14
Selected Indicators for Economy	
Total GDP (2011 PPP $ Billion) 2015	51.1
Young age dependency ratio per 100 people	49.2
Old age dependency per 100 people	6.4
Total Debt Stock % GNI 2014	54.6
Country Rank (Low number indicates high debt stock)	63
Total Debt Stock % GNI	10.2
Selected Indicators for Income Disparity	
Gini coefficient	30.8
% population below PPP $1.90 Income per Day	2.2
Selected Indicators for Human Development	
HDI (Medium)	0.563
HDI Country Ranking	143
Selected Indicators on Gender	
Gender Development Index (GDI)	0.892
Gender Inequality Index (GII)	0.479
GII Country Ranking	112
Selected Indicators on Education	
Education index	0.495
Country Rank for Education Index	136
Government Expenditure on Education (% of GDP)	2
Adult Literacy Rate (15 Years and Older)	77.2
Adult Literacy (Youth % 15-24 Male)	91.1
Adult Literacy (Youth % 15-24 Female)	91.9
Youth Female to Male Literacy Rate	1.08
Selected Indicators for Access to Technology	
ICT Development Index (IDI)	3.12
IDI Country Ranking[15]	125
Telephones and Cellular Subscribers per 100	133
Personal Computers per 100 People	2.7
Internet Users % Population	19
Selected Indicators for Health	
Healthcare Spending (% of GDP)	1.3
Doctors (per 10,000 people)	6.8
Child Malnutrition (% under age 5)	14.7
Ecosystems	
Percentage of Forest Area (%)	53.6
Percentage of Protected Areas (%)[6]	18[33]
Population in the Low Elevation Coastal Zone LECZ[30]	
% Population in Low Elevation Coastal Zone	23.8

status, population density, Human Development Index, income, literacy, poverty, inequality, and access to technology, and natural resources. These are indicators that reflect relative weaknesses and conditions of deterioration that would increase the direct effects associated with hazard impacts.

Table 1 presents the status of selected proxy indicators for Cambodia. Unless otherwise stated, the values are extracted from the 2016 Human Development Report[29] and provide values for the year 2015. These proxy indicators would be useful to make a comparison between the prevalent vulnerabilities in the six countries under focus in this program.

Population Density

The average population density in Cambodia is 75 persons per square kilometer. The majority of the population are rural depending mostly on rain-fed agriculture. The UN Population Division's World Urbanizations Prospects 2003 report estimated that the level of urbanization in Cambodia will increase from 20.7% in 2015 to 33.2% by 2025. Rapid increases in population density can increase vulnerability by putting additional pressures on the environment and infrastructure of urban poor communities.

Nearly 24% of the population of Cambodia lives within the Low Elevation Coastal Zone (LECZ). Rising sea levels on the Cambodian coastal

29 hdr.undp.org/sites/default/files/2016_human_development_report.pdf

belt could pose a significant threat to marine coastal areas, which already suffer from storm surges, high tides, beach erosion, and seawater intrusion. Low-lying areas, including settlements, beach resorts, seaports, coastal fisheries, and mangrove forests could all be affected.[30]

Economy

Cambodia's Gross Domestic Product (GDP) is 51.1 billion USD per annum, and the country's economy relies primarily on agriculture (33% of GDP and employing 57% of the country's labor force), industry led by the garments industry (21% of GDP and employing 15.9% of the country's labor force), and services (42% of GDP and employing 26% of the country's labor force). The contribution of industry to GDP has doubled since 1993, but a substantial proportion of the population is still dependent on the farming and fisheries sectors. Cambodia is vulnerable to floods and droughts, mostly due to reliance on agriculture and fisheries.[31]

The significance of economic indicators in the aftermath of a disaster may vary depending on the type and magnitude of a disaster and the income level of a country.

Poverty and Income Distribution

Based on 2014 data, only two out of 10 Cambodians were poor, compared with five out of 10 in 2004, as a result of MDG achievements. According to the World Bank Poverty Assessment Report (2014),[32] Cambodia has halved poverty levels from 53% in 2004 to 20.5% in 2011. These achievements may erode if the effects of climate-related floods and droughts escalate in the future.

Many of those who escaped extreme poverty have only just cleared the poverty line, and the poverty rate is sensitive to small changes. In this context, it is important to consider that increased consumption financed by borrowing may be masking poverty reduction and poverty and vulnerability may be more significant than previously thought.[33]

The Gini Index, which measures the deviation of the distribution of income among individuals or households within a country, has fallen from 35.53 in 2004 to 30.8 in 2015, indicating a decrease in inequality.

Gender

The Cambodia MDG Acceleration Program (2013)[34] stated that gender issues have been shown to be at the root of many development problems that Cambodia faces. A stronger gender focus and specific gender strategies are required in all sector interventions. The program also stated that one of its targets was to eliminate gender disparities in wage employment in all economic sectors. Specific targets were set in the agriculture, industry, and service sectors. The progress on the female share of wage employment in the service sector is slow and much more attention needs to be paid to this sector. Gender equality and empowerment of women are key national development objectives in Cambodia as reflected in the Government's Rectangular Strategy (RS) and the National Strategic Development Plan (NSDP). Additionally, the Neary Rattanak (NR) is a five-year strategic plan, originally developed in 1999 by the Ministry of Women's Affairs (MoWA), as Cambodia's strategic framework and plan for gender equality. NRIII 2009-2013 focused on five pillars:

1. Economic empowerment of women

30 http://sdwebx.worldbank.org/climateportalb/doc/GFDRRCountryProfiles/wb_gfdrr_climate_change_country_profile_for_KHM.pdf
31 Ibid.
32 http://www.worldbank.org/en/news/press-release/2014/02/20/poverty-has-fallen-yet-many-cambodians-are-still-at-risk-of-slipping-back-into-poverty
33 https://www.adb.org/sites/default/files/institutional-document/151706/cambodia-country-poverty-analysis-2014.pdf
34 www.undp.org/.../MDG/MDG%20Acceleration%20Framework/.../Cambodia%20-%2...

2. Education of women and girls, attitudes and behavior change

3. Legal protection of women and girls

4. Health and nutrition of women and girls and HIV and AIDS prevention

5. Women in public decision-making and politics

Education

In Cambodia, the youth female to male literacy rate is 1.08. UNICEF Cambodia (2014)[35] found that in the 2010/2011 school year, the overall percentage of children enrolled in primary school was 95.2% (95.8% for boys and 94.6% for girls), demonstrating that the gender gap at the primary school level has been nearly eliminated. However, completion rates for primary, and particularly lower secondary education, are low. Poverty pushes many students out of school as many parents, especially in rural areas, cannot afford the direct and indirect costs related to education, and families often require children to help at home with chores and farming. Challenges multiply for children in rural and remote regions, especially those from ethnic minorities, who lack access to consistent, quality education.

Two major mechanisms are now assisting the government to effectively implement Cambodia's sector-wide approach to education. These are the Joint Technical Working Group on Education, comprising the Ministry of Education, Youth and Sport and development partners such as those from civil society and the Education Sector Working Group, which brings together development partners working in education.

Research by Neach[36] reveals that despite the success over the last two decades of increasing females' enrollment in higher education and substantial progress in alleviating gender inequality in Cambodian higher education, many challenges remain. Financial constraints are a major determinant of higher education enrollment, especially for higher education completion. Completing higher education involves numerous costs, and thus sending children to university is a huge hurdle for many families. Under such conditions of economic stress, students from economically disadvantaged families, especially girls, have limited opportunities to access and complete higher education. To be able to attend university, students are compelled to work part-time, which can consequently lead to lower academic performance, and negative effects on physical health and security.

Health

Cambodia currently allocates 1.3% of its GDP to health. According to WHO, 44% of Cambodia's population reports having less than one physician per 1000 population. This is in contrast to the Human Development Report (2016), which reports 1.3 physicians per 1000 people in Cambodia.

The health system is facing the dual challenge of the ongoing burden of communicable diseases and a growing epidemic of non-communicable diseases (NCDs). NCDs are already the largest cause of mortality in Cambodia.[37]

ICT Development

According to the International Telecommunication Union[38], the ICT Development Index (IDI) for Cambodia is 3.12 (2016) and the country rank is 125 out of 176. This is a concern because of the reduced ability to incorporate modern ICT applications for disaster monitoring, forecasting, and climate modeling capabilities.

35 https://www.unicef.org/cambodia/3.Education.pdf
36 Chea Nich (2015) Higher Education in Cambodia, MA Thesis, Goteborgs University, https://gupea.ub.gu.se/bitstream/2077/39995/1/gupea_2077_39995_1.pdf

37 Health Strategic Plan 2016-2020
38 http://www.itu.int/net4/ITU-D/idi/2017/index.html

Environment

Cambodia is rich in biodiversity. Of particular interest to conservationists is a 10,000km^2 area in the south-western part of the country known as the Cardamom Mountain Landscape, which harbors a remarkable diversity of species.[39]

It also has a rich marine environment, with coral reefs surrounding almost all of its islands. Destructive fishing practices are posing a threat to the coral reefs. The International Symposium on Flood-Pulse Ecosystems, Siem Reap (2018) expressed concern about the deterioration of the Tonle Sap ecosystem on which millions depend for food and irrigation. There are already-visible effects of climate change, overfishing, and dam construction on this indispensable ecosystem.

Disaster Risk Profile

Disaster risk is the potential loss of life, injury, or destroyed or damaged assets which can occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity.[40]

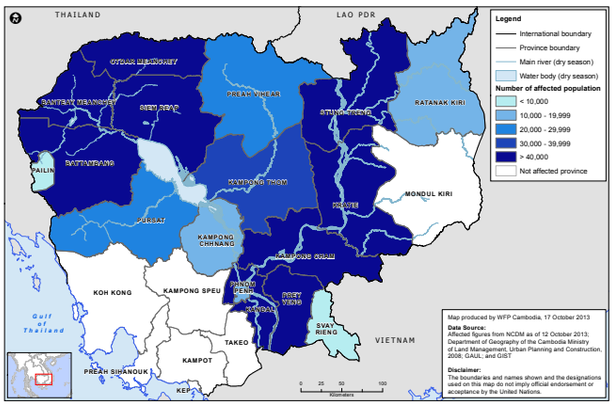
Floods are considered to be the major disaster in Cambodia. Figure 9 depicts the land area affected by floods in 2013.

In 2013, floods affected 20 out of 24 provinces, 377,354 households, claimed 168 lives, and forced 31,314 households to evacuate to safe areas.

From 1996 to 2017, natural disasters in Cambodia caused 2,327 deaths, destroyed 17,826 houses, and damaged 47,949 houses. There was a total of 15,128,836 people affected.[41]

39 https://www.fauna-flora.org/countries/cambodia
40 http://www.preventionweb.net/english/professional/terminology/v.php?id=7818
41 NCDM, Disaster Loss Database (CAMDi). 2017, NCDM Phnom Penh.

Figure 9 Flood Inundation in 2013[42]



EM-DAT Risk Profile for Cambodia

UNISDR has recommended the use of Annual Average Loss (AAL) as an indicator of risk and resilience in order to highlight future losses that a country could experience.[43]

> The Average Annual Loss is the expected loss per annum associated with the occurrence of future perils assuming a very long observation timeframe. It considers the damage caused on the exposed elements by small, moderate, and extreme events and results in a useful and robust metric for risk ranking and comparisons.
>
> Probabilistic risk assessment gives an overview of estimated losses, which can provide guidance to predict and plan for future losses. This information can be used to plan and prioritize investments and strategies for managing disaster risk.
>
> UNISDR, 2013

42 https://reliefweb.int/sites/reliefweb.int/files/resources/WFP_KHM_Impact_of_Flooding_12Oct2013_A4_V02_20131016.pdf
43 www.unisdr.org/files/35716_newsystemofprogressindicatorsfordrr.pdf

The Internationally Reported Database CRED EM – DAT[44] records disaster data for events that qualify based on the following criteria:

- Ten or more people reported killed
- One hundred or more people reported affected
- Declaration of a state of emergency
- Call for international assistance

These criteria fail to capture the impact of droughts where no deaths occur. Droughts have had a significant impact on livelihoods in Cambodia and consequently on household income but are not captured with these criteria. Therefore, national and sub-national databases are important to monitor droughts and small-scale disasters not recorded in EM-DAT.

Figure 10 has been adopted from CRED EM – DAT, as presented in the Prevention web domain,[46] and displays the frequency of hazard impacts and the Average Annual Loss (AAL).

Floods (16), storms (12), and droughts (72) are the most frequent according to EM-DAT, but the significance of droughts is not properly revealed due to the way the database is constructed.

One-hundred percent of the AAL, as seen in Figure 11, is comprised of floods. Agricultural losses from floods amount to between 100-170 million USD each year.[47]

Figure 10 Frequency of Disasters

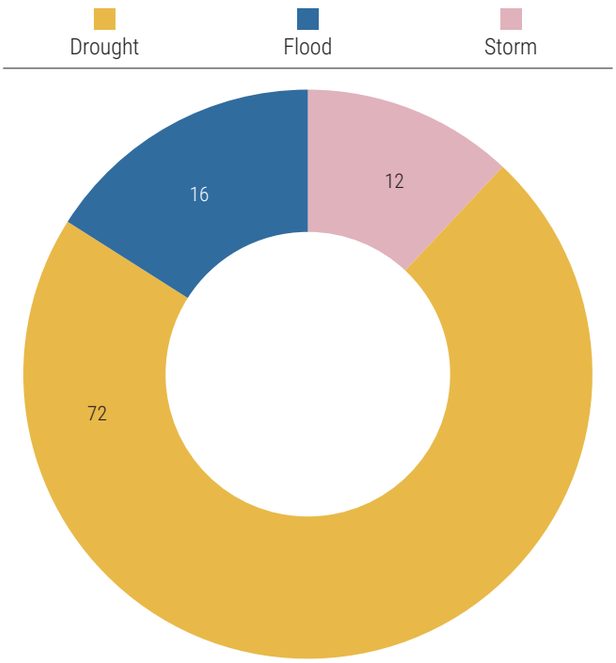
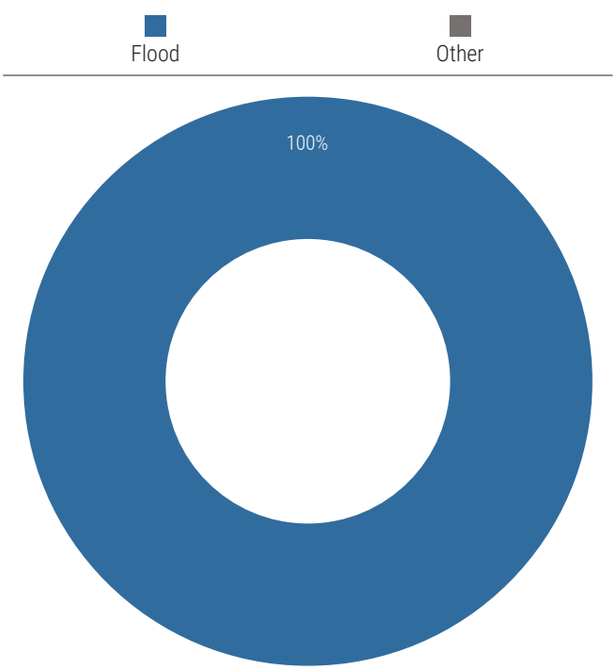


Figure 11 Annual Average Loss



44 www.emdat.be Universitè catholique de Louvain Brussels – Belgium
45 https://www.preventionweb.net/countries/khm/data/
46 https://www.preventionweb.net/countries/khm/data/
47 http://nidm.gov.in/easindia2014/err/pdf/country_profile/cambodia.pdf

Legal and Institutional Arrangements for DRM

Policy and Legal Framework

In Cambodia, the Disaster Management Portfolio falls under the leadership of National Committee for Disaster Management (NCDM).

The Law on Disaster Management was adopted in 2015, which gives full structure and strategic direction to NCDM with the devolution of DRM mandate from national government to sub-national and the commune level. Additional legal statues 2002 Sub-decree No. 30 ANKR.BK and 2006 Sub-decree No. 61 ANKR.BK provide the mandate for organization and functioning of the National and Sub-National Committees for Disaster Management; and the establishment of the Commune Committee for Disaster Management (CCDM).

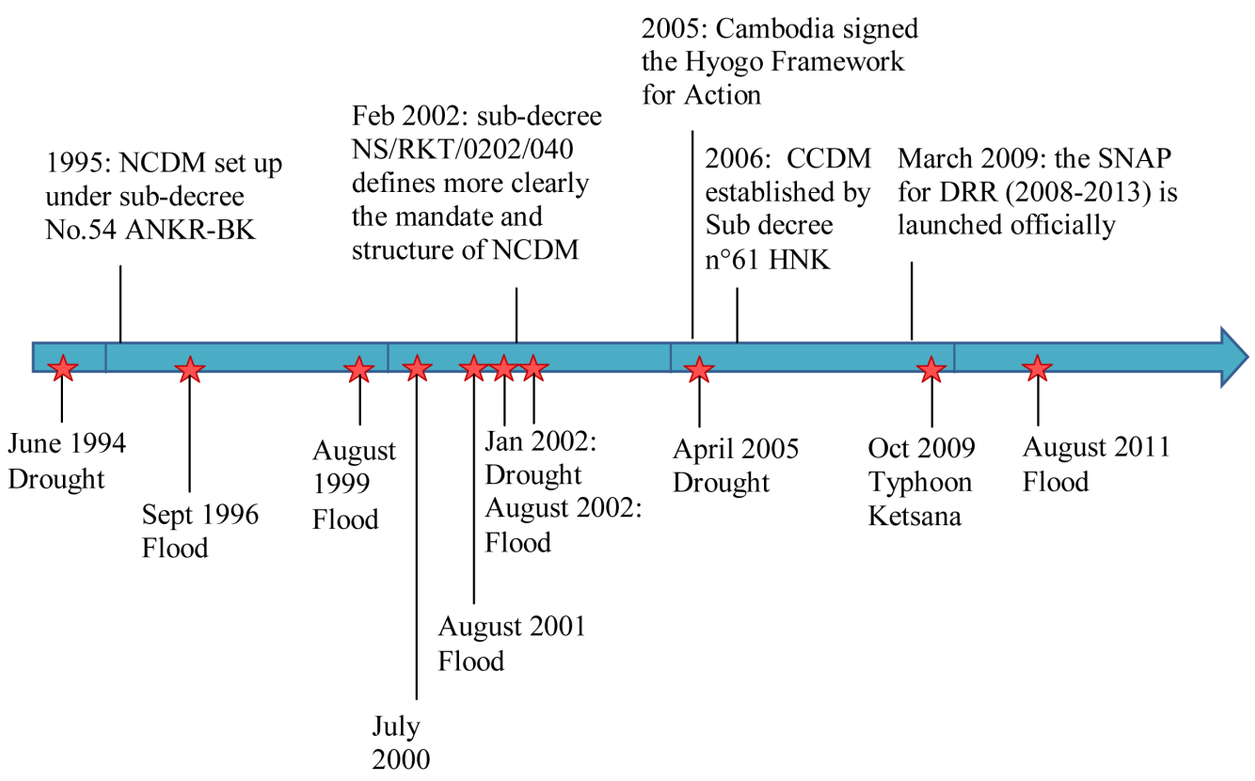
The government has formed the National Strategy Development Plan (NSDP) 2009-2013 and the Strategic National Action Plan for Disaster Risk Reduction (SNAP) 2008-2013. Figure 12 depicts the timeline of the evolution of DRM policy, legislation, and institutional frameworks in Cambodia.

Institutional Framework

NCDM was initially established in 1995 by Sub decree No 54 ANKR-BK and was legitimized in 2002 by Royal Decree No. NS/RKT/0202/040, providing a clearer definition of its mandate and structure. Figure 13 provides its organizational structure.

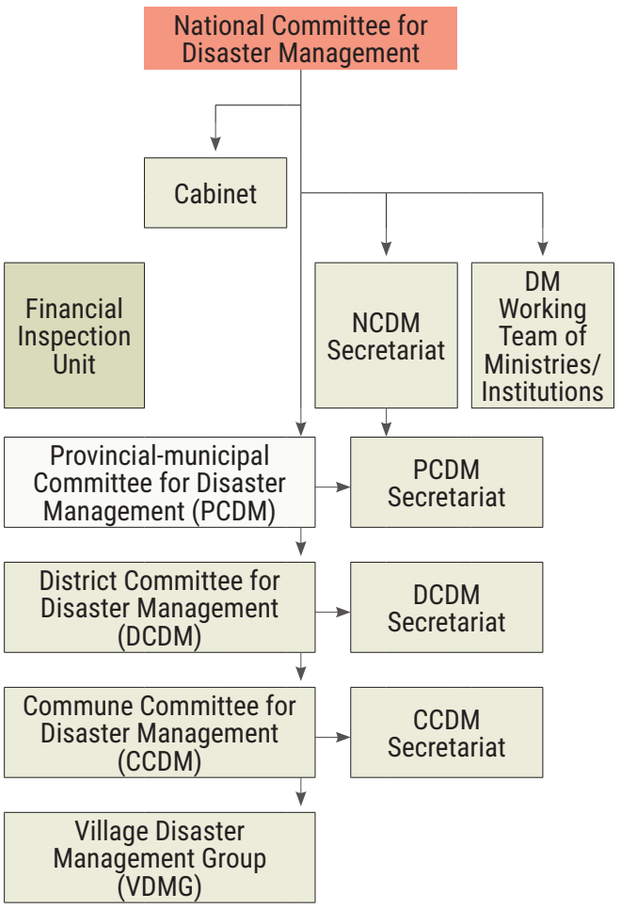
At the national level, NCDM is constituted by the Secretariat and five technical departments. The sub-national structure comprises of Municipal Committees for Disaster Management (MCDN), Provincial Committees for Disaster Management (PCDM), District Committees for

Figure 12 Timeline of Hazard Occurrences and DRM Framework Development 1994 - 2011



Disaster Management (DCDM), and Commune Committees for Disaster Management (CDCM).

Figure 13 DRM Institutional Framework



Key Agencies Involved in DRM

In principle, each ministry of the Cambodian government is mandated to implement the following two policies:

- Appoint focal officials for developing policy and supervising all activities associated with emergency cases within the ministry; and
- Develop policy, operational plans, other procedures, and guidelines for making damage and need assessments for working agents within the institution.

The most active ministries in DRM are the Ministry of National Defense, Ministry of Public Works and Transport (MPWT), Ministry of Health (MoH), Ministry of Water Resources and Meteorology (WoWRAM), Ministry of Education, Youth and Sports (MoEYS), Ministry of Agriculture, Forestry and Fisheries (MAFF), and Ministry of Planning (MoP). The MPWT works on the reconstruction of damaged national and local roads, bridges, and other key communication infrastructure in cooperation with collaborators in the MPWT. MPWT also provides transportation facilities for rapid movement of relief supplies and relief personnel for evacuation victims. The MoH initiates the Rapid Response Teams (RRT) and Emergency Operation Center (EOC) at the ministry. The MoWRAM helps in providing necessary tools, such as hydro meteorological early warning. The MoEYS provides education on DRR and integrates DRR into the public educational program. The MAFF is currently preparing a Priority Framework for Action in CCA and DRR. Finally, the MoP plays a key role in the development of the Strategic National Action Plan (SNAP).

Baseline Assessment Study in Cambodia

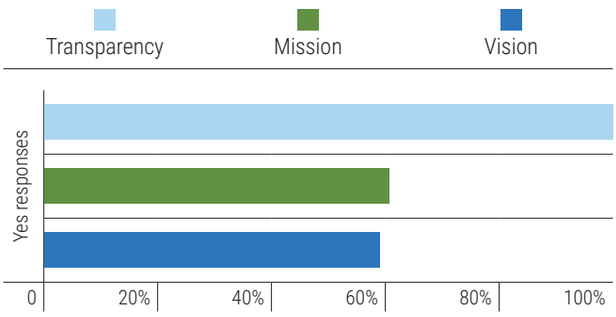
This baseline study was carried out as the first step of program implementation to determine the current status of emergency preparedness in the selected countries. It will serve as a benchmark to inform decisions on the subsequent interventions to be carried out in each of the program countries. It will also be useful to assess the impact of the interventions at the end of the program and is therefore inherent to the monitoring and evaluation mechanism. Baseline data will be used to define road maps towards strengthening emergency response capacities of local actors at the country level which will be aggregated at the regional level for the program.

Findings from the Baseline Survey for Government Organizations

Purpose of the Organization

Purpose of the organization was assessed using the availability of a vision and mission statement for the organization and transparency of work. Responses are depicted in Figure 14.

Figure 14 Responses for Purpose of Organization



Only about 60% of the surveyed organizations have a vision and mission statement. One-hundred percent of responses were positive regarding transparency of work, which indicates that the organizations believe in the policies of their organizations.

Institutional Capacity

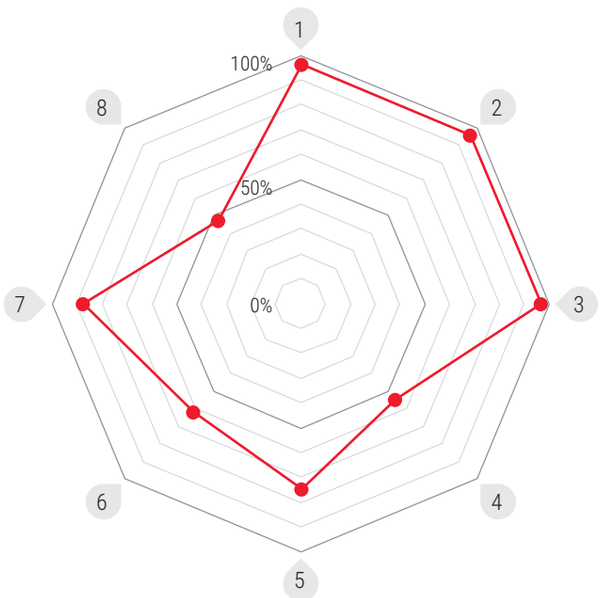
Institutional capacity was assessed based on several criteria (represented by numbers) and sub-criteria (represented by bullet points) as follows:

1. Organizational structure
2. Administrative processes
   - Manuals on administrative procedures
   - Manuals on human resource management
   - Recruitment policies
   - Code of conduct
   - Workplace Harassment Policy
   - Gender Sensitive Workplace Policy
   - Adequacy of documented procedures
   - Staff orientation in administrative procedures

Government institutions are established under legal mandates and therefore organizational structures are defined. Laws and regulations formulated by the Council for

Figure 15 Responses for Sub-Criteria under Administrative Processes

1 Human resources	2 Recruitment policies	3 Selection policy	4 Staff orientation
5 Code of conduct	6 Work place harrassment policy	7 Gender sensitive work place policy	8 Manuals on administrative procedures



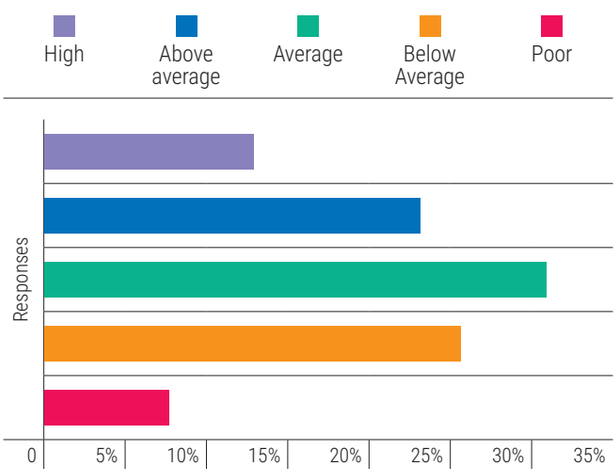
the Development of Cambodia (CDC) guide organizational procedures.

Responses obtained for administrative processes are depicted in Figure 15, except adequacy of documented procedures.

Figure 15 represents a spider chart in the shape of an octagon where each angle of the octagon represents one of the eight sub-criteria for administrative processes. The outer-most line of the octagon represents a value of 60% responses (availability), while the innermost represents 0%. The diagram offers a useful visual representation for comparing responses obtained for the eight sub-criteria. Manuals for administrative procedures show lower responses, which is possibly due to organizations relying on regulations formulated by the Council for Development for Cambodia (CDC). Staff orientation and inadequate harassment policy are areas of concern. All administrative procedures can benefit from further improvement.

Responses for adequacy of documented procedures are depicted in Figure 16.

Figure 16 Responses for Adequacy of Documented Procedures



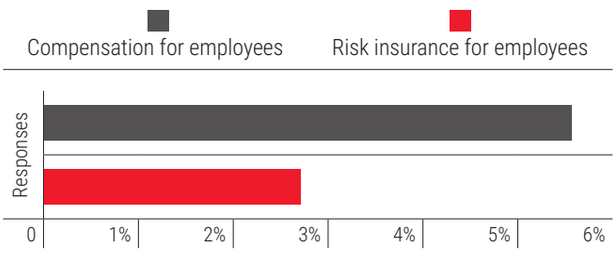
Respondents had mixed feelings about the adequacy of the documented procedures. Only less than 25% felt that they were above average in terms of adequacy.

Staff Security

The intention of this question was to determine whether employees working in hazardous locations were covered by risk insurance. Government organizations had no special insurance coverage for officers working in disaster risk management.

Responses obtained are depicted in Figure 17.

Figure 17 Insurance Coverage for Staff



*Note the restricted range of percentages on the X axis.

Less than 3% of respondents have insurance coverage for staff, and less than 6% responded positively to the fact that compensation was available.

Financial Management

To measure financial management, government organizations were requested to respond to the following criteria:

1. Availability of an established financial reporting system
2. Completion of annual financial audits
3. Annual budgetary allocation for DRM

Responses obtained for these criteria are depicted in Figure 18.

Figure 18 Responses for Financial Management

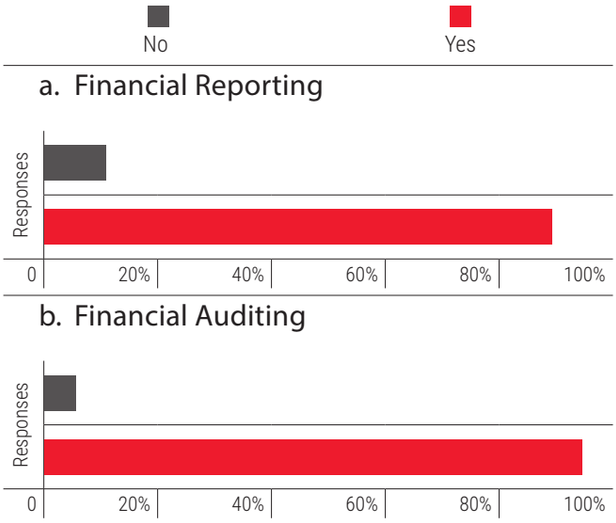
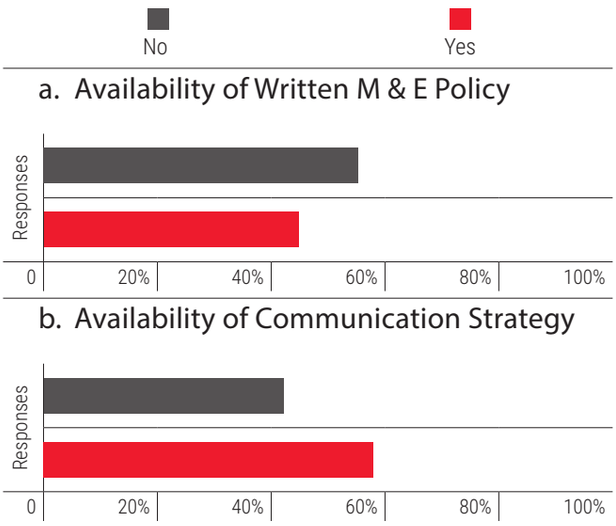


Figure 19 Responses to M & E Criteria



Government organizations are bound by regulations provided by the CDC and therefore responses for proper financial management are high. The few responses to the lack of financial reporting and auditing requires further investigation. Most organizations had no budgetary allocation for DRM.

Monitoring and Evaluation (M & E)

M & E capacity was evaluated based on the following criteria:

1. Availability of a written monitoring, evaluation, and learning policy

2. Availability of a communication strategy for disseminating learning from monitoring, evaluation, and learning results.

Responses are depicted in Figure 19 (a & b).

Less than 50% of the organizations surveyed had a written M & E policy. The responses for the availability of communication strategy for dissemination of learnings was nearly 60% and suggests that some organizations may have M & E procedures, even though the process is not documented.

Technical Capacity for Emergency Response

Organizational technical capacity for emergency response was assessed based on the following criteria, which also serve to indicate organizational preparedness for emergency response:

1. Staff adequacy to perform emergency response

2. Established Standard Operation Procedures (SOP)

3. Availability of emergency response plan

4. Conduct simulation drills

5. Staff training for preparedness in emergency response

Responses for staff adequacy is depicted in Figure 20.

Less than 40% of the organizations responded that staffing for emergency response was adequate. The % yes responses obtained for criteria 2 and 3 are given in Figure 21.

Figure 20 Responses for Staff Adequacy

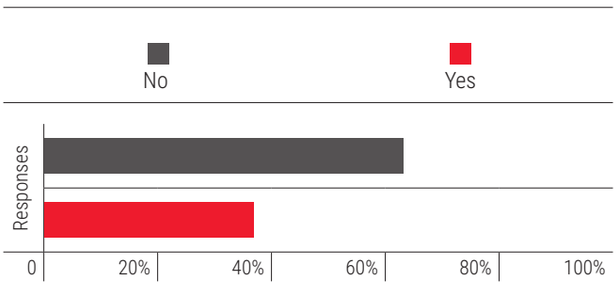
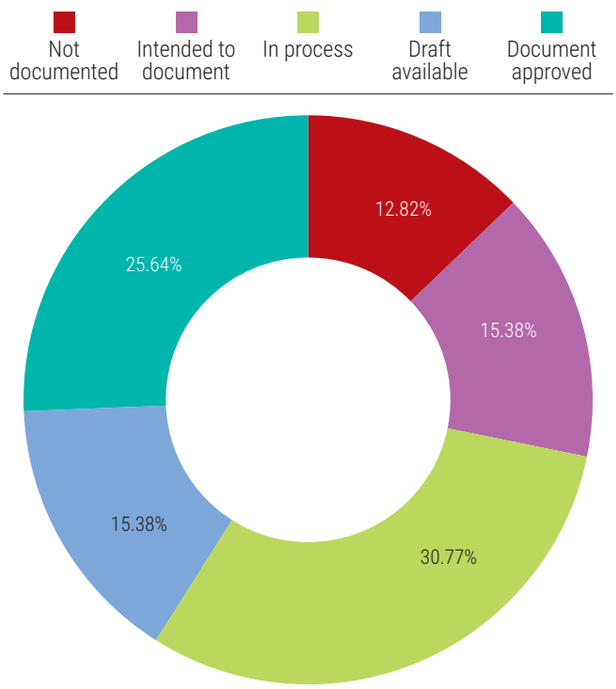


Figure 21 Responses for Availability of Response Plans and SOPs



Only 26% of the surveyed organizations had approved response plans and SOPs.

Responses to criterion 4, conduct simulation drills, are depicted in Figure 22.

Less than 40% of the organizations surveyed conducted simulation drills.

Responses to staff training for preparedness in emergency response are depicted in Figure 23.

Figure 22 Responses Regarding Simulation Drills

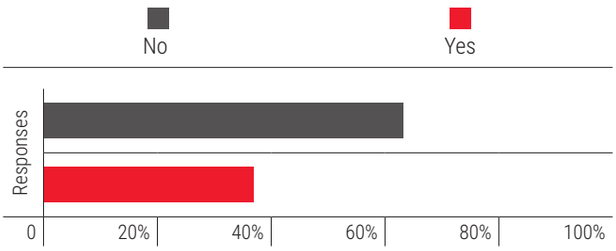


Figure 23 Responses for Staff Training

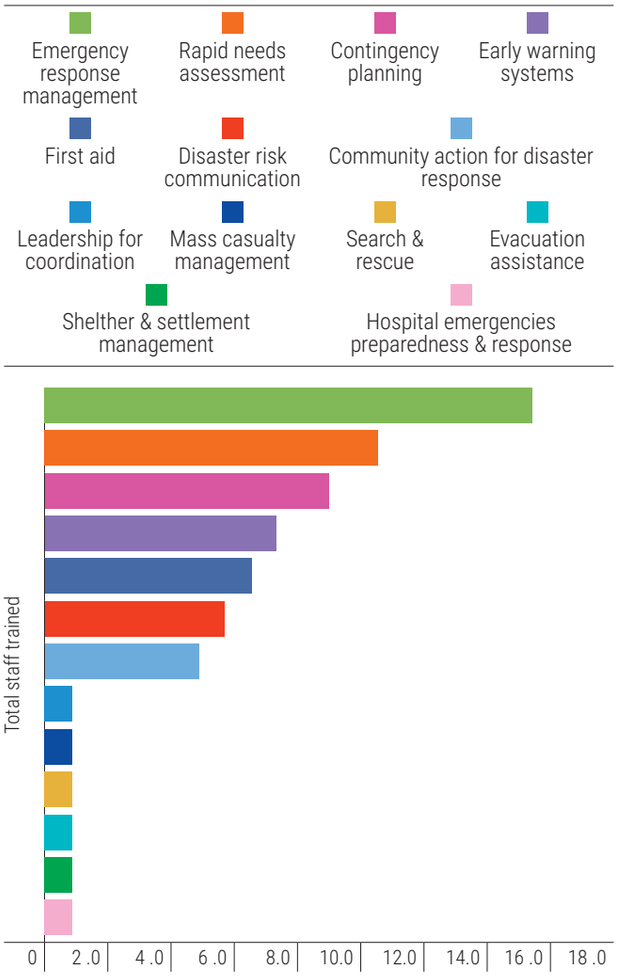


Figure 23 reveals that the highest area of staff training is in emergency response management (over 15%) and rapid needs assessment (over 10%), however there is an inadequacy of both the types and numbers of training events undertaken for government organizations.

Figure 24 depicts gender disaggregated data for staff training.

Figure 24 Gender Disaggregated Data for Staff Training

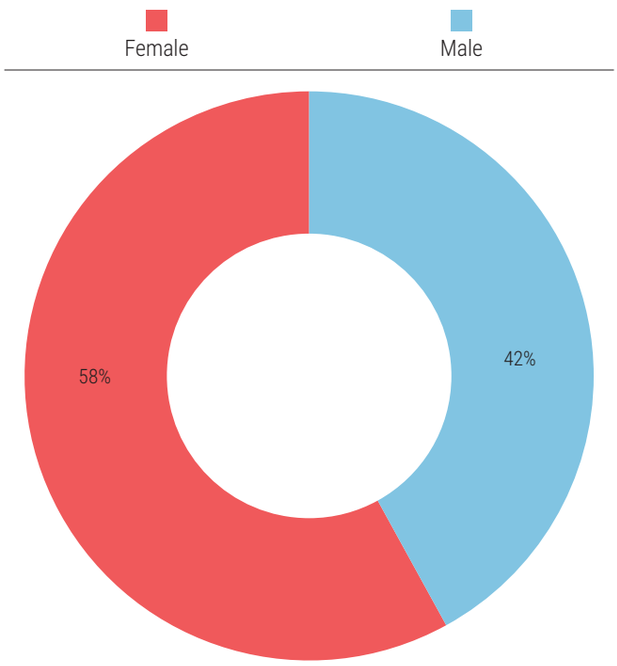


Figure 24 demonstrates that females have had good opportunities for undertaking training in Cambodia.

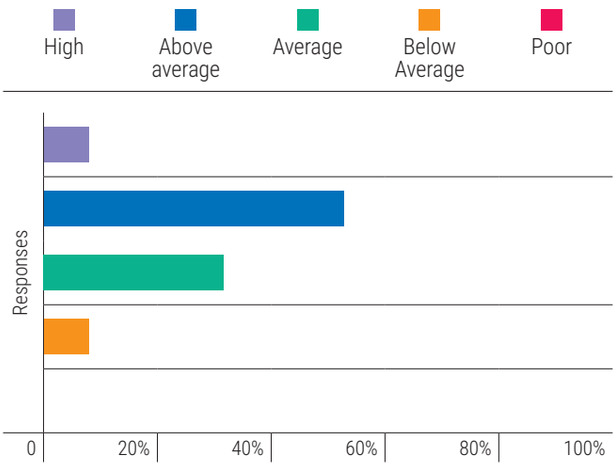
Coordination between Stakeholders

The level of coordination between stakeholder organizations during emergency management was studied based on two criteria:

1. Inclusion in a disaster management coordination network
2. Perception of the adequacy of its functional effectiveness

One hundred percent of organizations expressed that they are included in a disaster management coordination network. The responses regarding the perception of its effectiveness are displayed in Figure 25.

Figure 25 Responses for Effectiveness of Coordination



The majority of respondents believe that the existing coordination mechanisms are effective.

Knowledge Management

The level of knowledge management for emergency response in the government sector was studied based on the following criteria and sub-criteria:

1. Availability of institutional database for emergency response
2. Production of knowledge material
3. Sharing of the produced knowledge material
4. Types of organizations with which knowledge material is shared and the level of sharing

Responses for knowledge management are depicted in Figure 26, 27 and 28.

Nearly 70% of the surveyed organizations responded that they have an institutional database.

Figure 26 Availability of Database

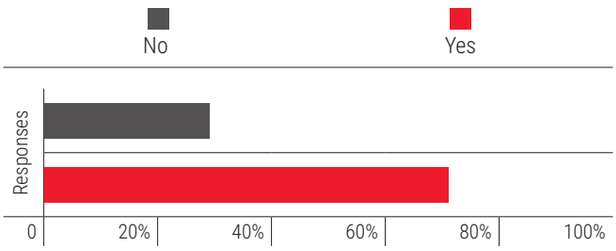


Figure 27 Production of Knowledge Material

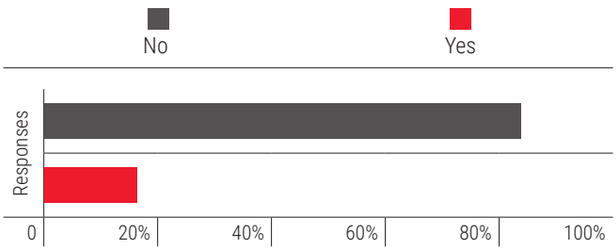
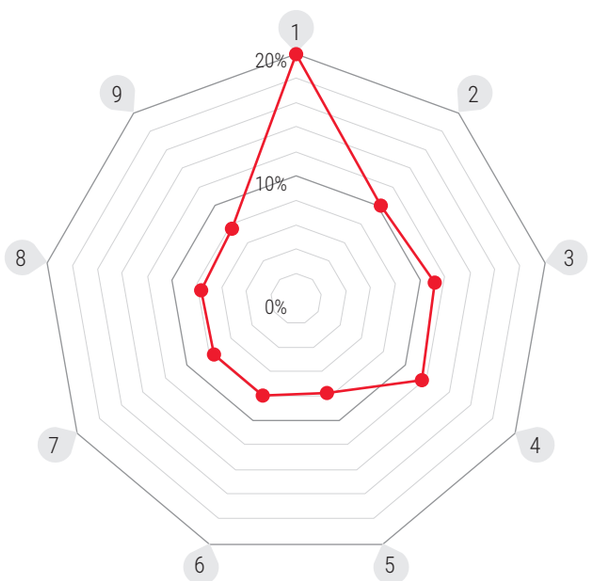


Figure 28 Responses for Sharing Knowledge Materials

1 Government	2 International non-governmental	3 Bilateral organization
4 Donor Agencies	5 Local non-governmental organizations	6 United Nations organizations
7 Private organizations	8 Media	9 Academic institutions



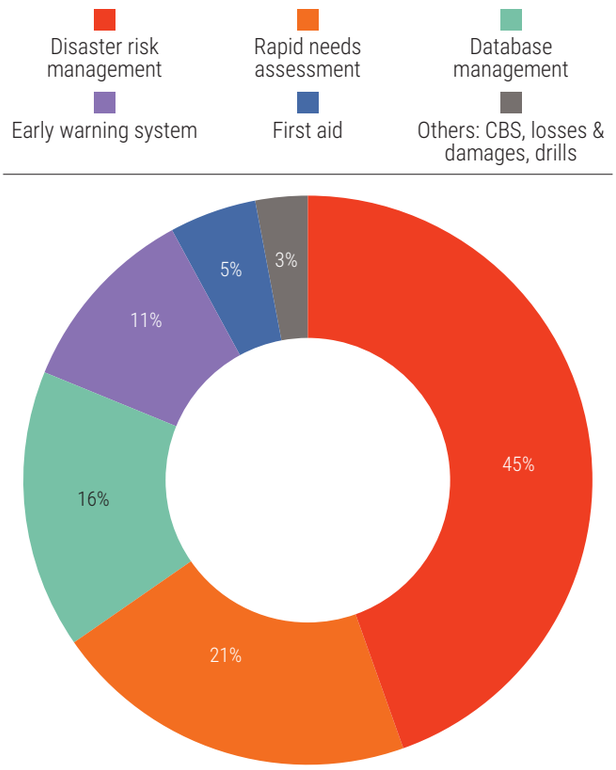
Majority of the government organizations do not produce knowledge products as seen in Figure 27.

Sharing of knowledge material is high within government organizations and within LNGOs. Figure 28 highlights the need to significantly improve sharing with other types of stakeholders.

Capacity Building Needs

Staff capacity building needs were studied. The responses received are depicted in Figure 29.

Figure 29 Staff Capacity Building Needs



Responses revealed that DRM knowledge, Rapid Needs Assessment, Database Management, Early Warning Dissemination, and First Aid are perceived as necessary in terms of capacity building in that order.

Humanitarian Standards

Affiliation with humanitarian standards was measured based on the following three criteria:

1. Member of the Humanitarian Accountability Partnership (HAP)
2. Acknowledgement of SPHERE Standards
3. Acknowledgement of Core Humanitarian Standards (CHS)

Responses are depicted in Figure 30.

Responses show affiliation with SPHERE Standards is high but affiliation with CHS and Humanitarian Accountability require further improvement.

Findings from the Baseline Survey with LNGOs

Legal Mandate

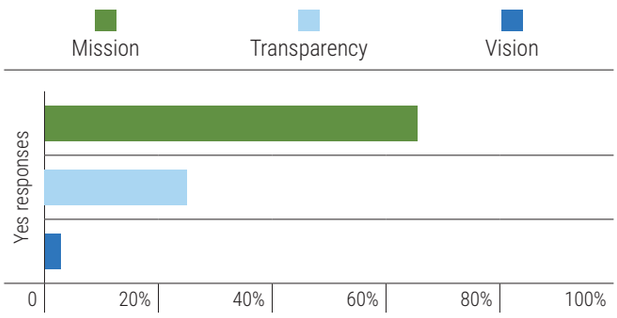
Responses were sought based on the following criteria:

1. Registration with the national government
2. Geographical location(s) of emergency response activities

All local NGOs (LNGO) are required to register prior to the commencement of activities and are regulated by the Law on Associations and NGOs (LANGO, 2015). International NGOs are registered through the Ministry of Foreign Affairs and International Cooperation (MFAIC), in conjunction with the ministries relevant to the NGO's sector. A local NGO is registered through the Ministry of Interior (MOI).[48]

48 https://cambodianlaw.wordpress.com/2010/07/16/doing-good-by-doing-it-right-setting-up-an-ngo-in-cambodia/

Figure 30 Responses for Affiliation with Humanitarian Standards



*Note the restricted range of percentages on the X axis

Figure 31 Geographical Operational Areas of Surveyed LNGOs

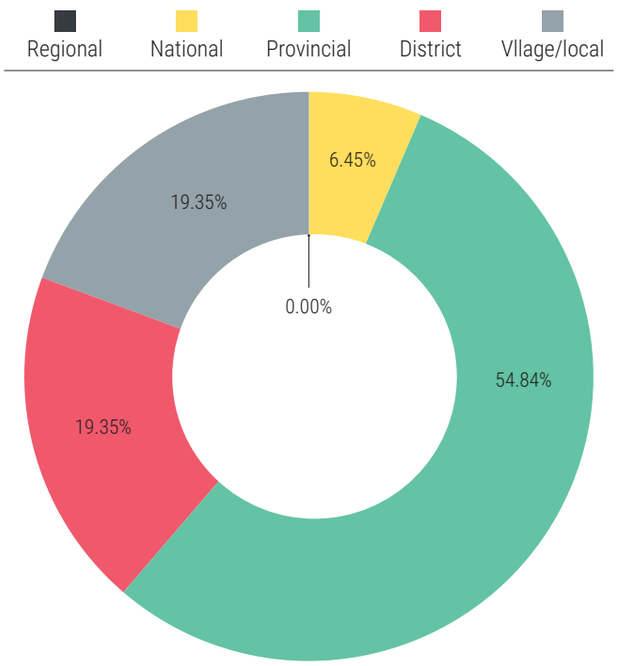
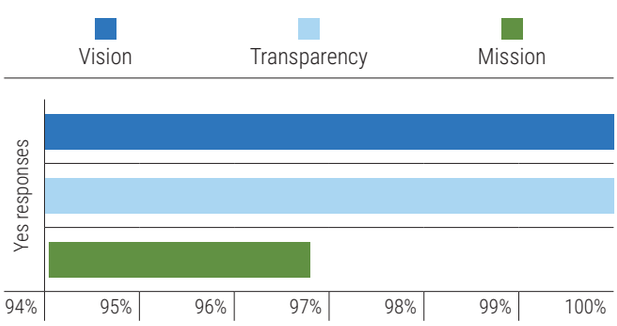


Figure 32 Responses for Purpose of Organization



*Note the restricted range of percentages on the X axis.

Geographical locations of operational areas of NGOs sampled are displayed in Figure 31.

The surveyed organizations are represented by national, provincial, district, and local level actors.

Purpose of the Organization

The purpose of the organization was assessed using the availability of a vision and mission statement for the organization. A total of 97% of the sample responded that their organization had a mission statement formulated. Responses are depicted in Figure 32.

Bound by the legal enactment, all LNGOs responded that the processes in their organizations are transparent. Though nearly all of the organizations responded that they have a vision statement, less than 40% have a mission statement.

Institutional Capacity

Institutional capacity was assessed based on several criteria (represented by numbers) and sub-criteria (represented by bullet points) as follows:

1. Organizational structure
2. Administrative processes
   - Manuals on administrative procedures
   - Manuals on human resource management
   - Recruitment policies
   - Code of conduct
   - Workplace Harassment Policy
   - Gender Sensitive Workplace Policy
   - Adequacy of documented procedures
   - Staff orientation in administrative procedures

Organizational Structure

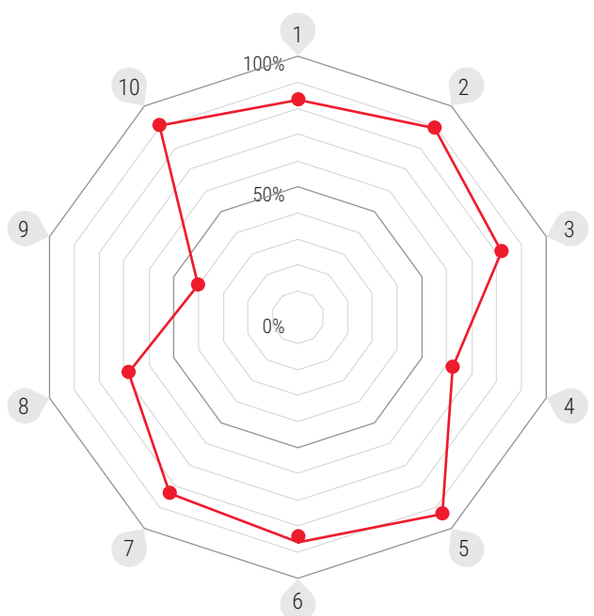
All organizations responded "Yes" to the availability of an organizational structure.

Administrative Process

Responses for the administrative process are depicted in Figure 33 as a spider chart.

Figure 33 Responses for Administrative Procedures

1 Human resources
2 Recruitment policies
3 Selection policy
4 Professional development procedures
5 Code of conduct
6 Work place harrassment policy
7 Gender sensitive work place policy
8 Administrative policies and procedures
9 Adequacy of the written policies
10 Staff orientations in adminstrative procedures

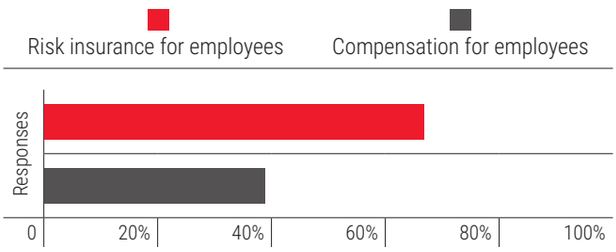


Apart from responses to two sub-criteria - adequacy of documented processes and staff orientation - responses to other sub-criteria under administrative procedures are high.

Staff Security

The survey asked whether organizations have insurance coverage for staff working in emergency response. Responses obtained are depicted in Figure 34.

Figure 34 Responses to Staff Security



Responses show that nearly 70% of organizations provide insurance to staff. However, less than 40% responded that they have compensation for staff if affected during duty in hazardous situations.

Financial Management

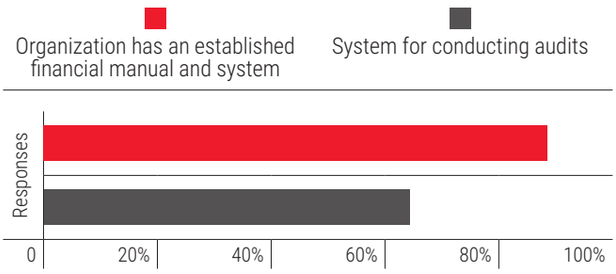
LNGOs were requested to respond Yes or No to the following criteria:

1. Availability of an established financial reporting system
2. Conduct annual financial audits
3. Annual budgetary allocation for DRM

Responses obtained for these criteria are depicted in Figure 35.

Nearly 90% of organizations responded that they have a financial reporting system. However, less than 70% responded that they have financial auditing. Most LNGOs do not have budget allocated for DRM.

Figure 35 Responses for Criteria on Financial Management



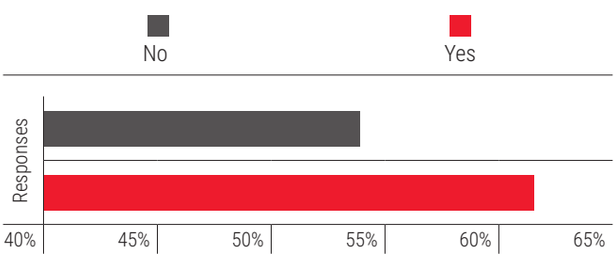
Monitoring and Evaluation (M & E)

M & E capacity was evaluated based on the following criteria:

- Availability of a written monitoring, evaluation, and learning policy
- Availability of a communication strategy for disseminating learning from monitoring, evaluation, and learning results

The responses on the availability of an M & E policy and a strategy for communication is given in Figure 36.

Figure 36 Responses Regarding M & E



*Note the restricted range of percentages on the X axis.

Less than 55% of the organizations surveyed have a written M & E policy, although close to 63% of the responses indicated the availability of a communication strategy for lessons learned.

Technical Capacity for Emergency Response

Organizational technical capacity for emergency response was assessed based on the following criteria which also serve to indicate organizational preparedness for emergency response:

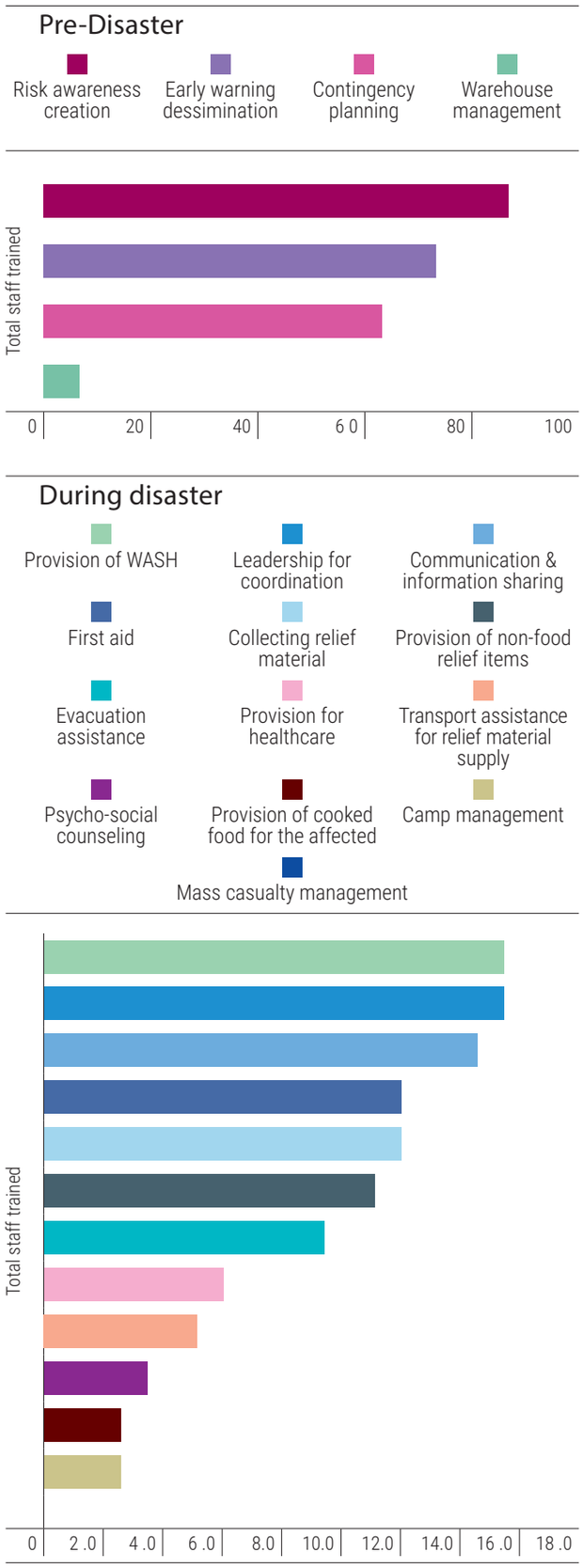
1. Emergency response activities are undertaken by the organization
2. Staff adequacy to perform emergency response
3. Established Standard Operation Procedures (SOP)
4. Availability of emergency response plan
5. Conduct simulation drills
6. Staff training carried out for preparedness in emergency response

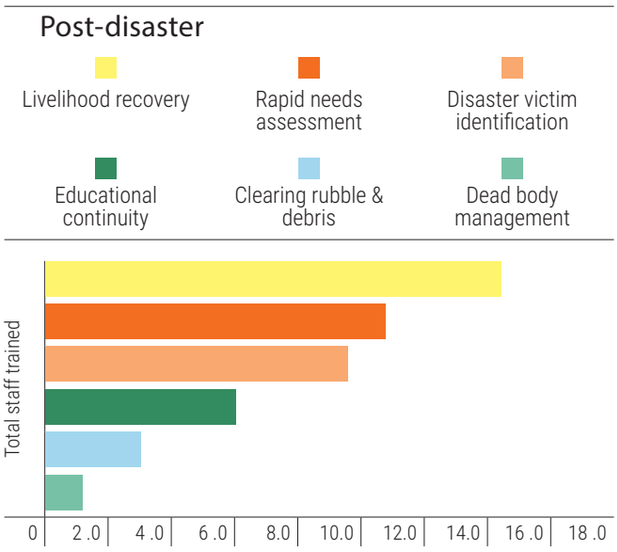
Responses for emergency response activities undertaken are depicted in Figure 37.

Pre-disaster activities include risk awareness (83.3%), early warning dissemination (73.3%), contingency planning (63.3%), and warehouse management (6%) in that order.

During a disaster, the range of activities is higher. These include water, sanitation and hygiene (WASH) (60%), leadership for coordination (60%), information sharing (56.6%), collecting relief material (46.6%), first aid (46.6%), Non-Food Relief Items (NFRI) distribution (43.3%), evacuation assistance (36.6%), provision of health care (23.3%), transport for relief distribution (20%), psycho-social counselling (13.3%) and provision of cooked food (10%).

Figure 37 Emergency response activities undertaken

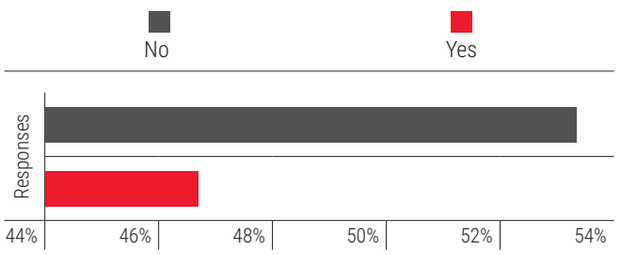




Post-disaster activities include livelihood recovery (80%), rapid needs assessment (60%), disaster victim identification (53.3%), educational continuity (33%), and dead body management (6.6%).

Responses for staff adequacy to perform emergency response is depicted in Figure 38.

Figure 38 Staff Adequacy to Perform Emergency Response



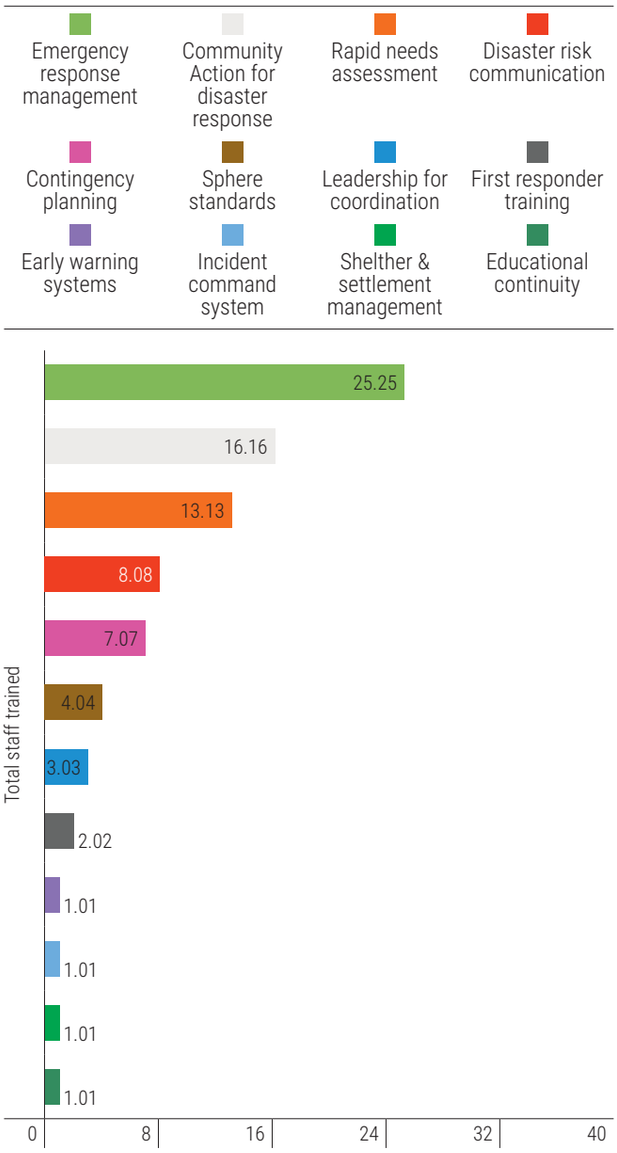
(Note the restricted range of percentages on the X axis)

The figure reveals that only 47% expressed that they have adequate staff in their organizations to perform emergency response activities.

Over 80% of organizations have SOPs for emergency response, and 76% of them have already formulated Emergency Response Operational Plans for their own institutions. However, due to the lack of resources, only 32% of the governmental agencies in charge of DRM have conducted simulation exercises on a once-yearly basis.

Figure 39 depicts staff capacity building.

Figure 39 Staff Capacity Building

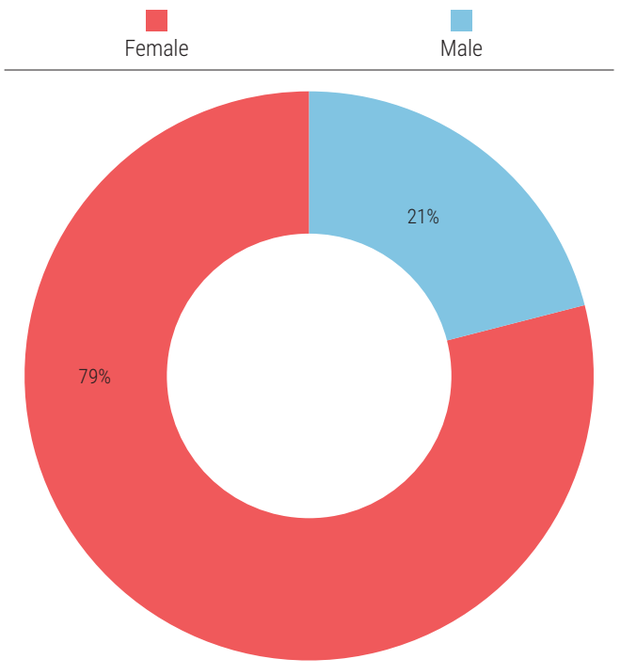


*Note the restricted range of percentages on the X axis.

The figure reveals that the area with the most staff training is SPHERE Standards. However the type and number of trainings for emergency response need to improve significantly.

Figure 40 depicts gender disaggregated data for staff training.

Figure 40 Gender Disaggregated Data for Staff Training



Similar to findings from the government sector, the graph displays the finding that female staff have

Providers of Capacity Building

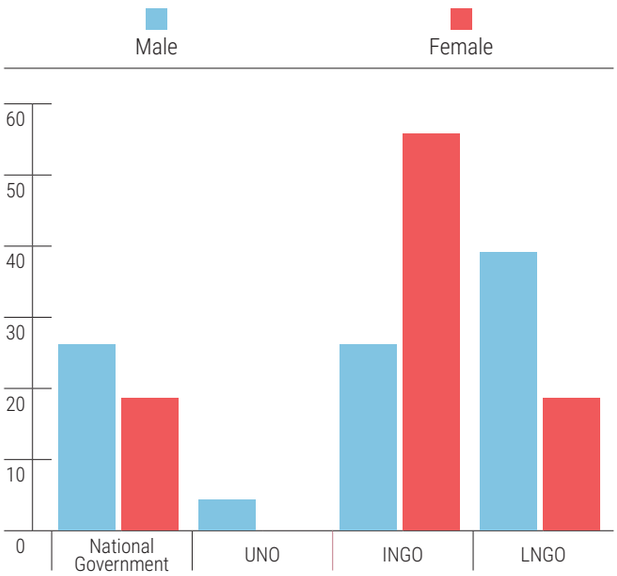
Figure 41 displays the contributions of stakeholders for staff training.

INGOs and LNGOs have contributed significantly to staff trainings. Government and UN organizations have also contributed some support for trainings.

Coordination between Stakeholders

The level of coordination between stakeholder organizations during emergency management was measured based on two criteria:

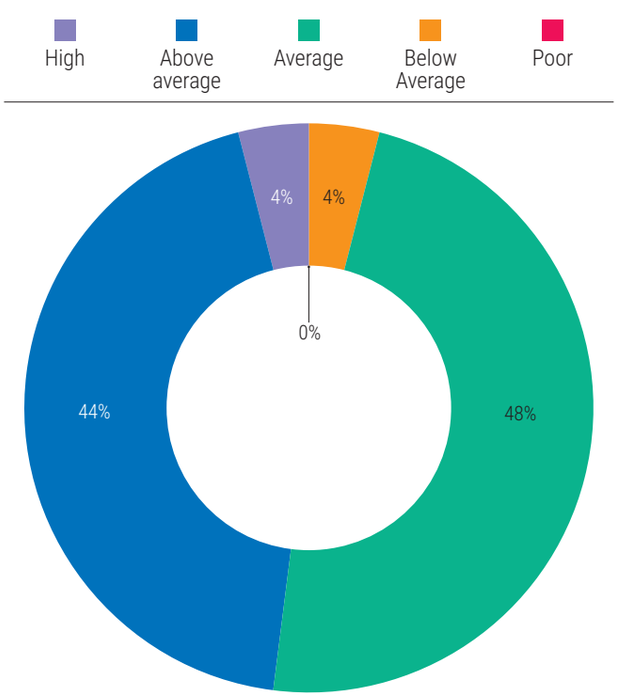
Figure 41 Providers of Staff Training



1. Inclusion in a disaster management coordination network

2. Perception of the adequacy of its functional effectiveness

Figure 42 Perception of Adequacy of Coordination



Majority of LNGOs are members of the coordinating network of the Cambodian Humanitarian Forum (CHF).

Responses to the perception of adequacy of coordination are depicted in Figure 42.

Nearly 50% of the surveyed organizations perceive coordination as average, and 4% perceived it to be poor. This highlights how organizations perceive the coordination mechanisms that are in place in the country and the need for strengthening these mechanisms.

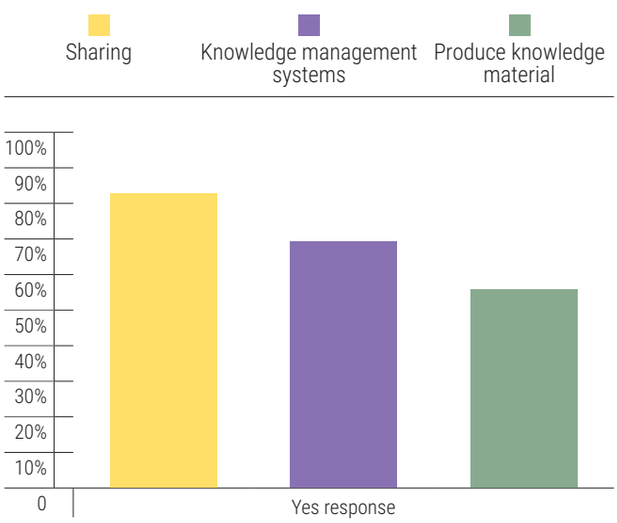
Knowledge Management

The level of knowledge management for emergency response was measured using the following criteria:

1. Availability of institutional database for emergency response
2. Production of knowledge material
3. Sharing of the produced knowledge material

Responses obtained are displayed in Figure 43.

Figure 43 Responses for Knowledge Management

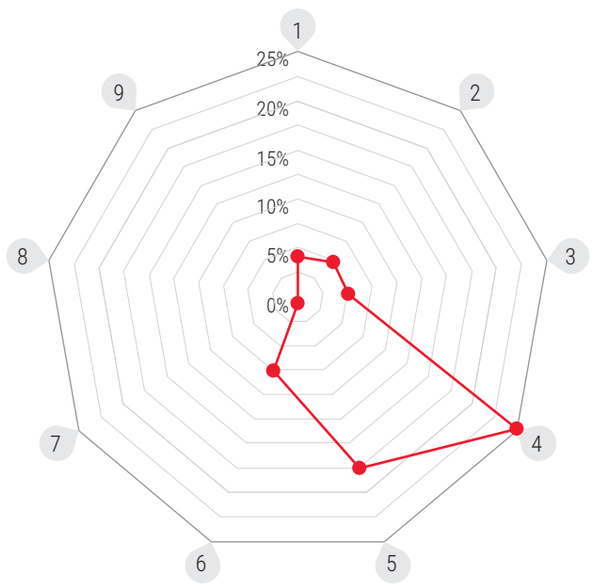


Nearly 70% of the organizations have knowledge management databases. Responses for production of knowledge material is just above 50%.

Figure 44 depicts the level of sharing knowledge products among stakeholders.

Figure 44 Level of Knowledge Sharing among Stakeholders

1 Government	2 International non-governmental	3 Bilateral organization
4 Donor Agencies	5 Local non-governmental organizations	6 United Nations organizations
7 Private organizations	8 Media	9 Academic institutions

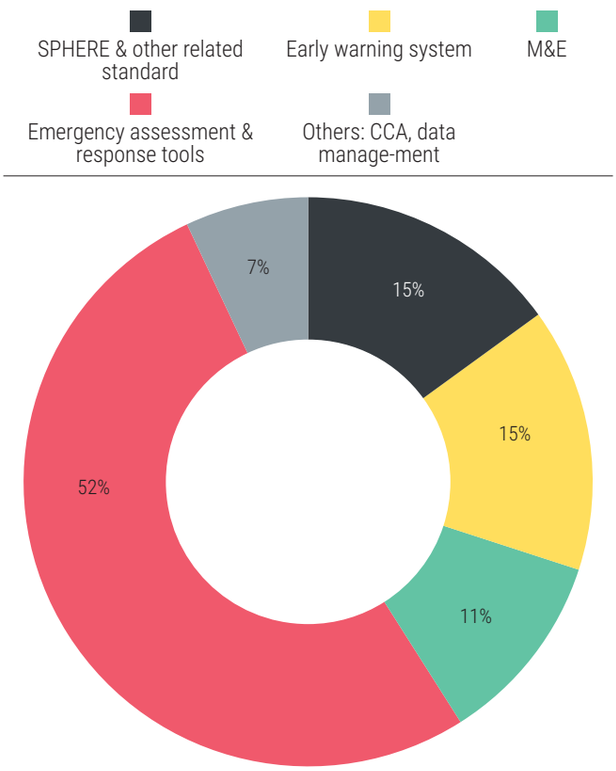


The figure reveals that sharing of knowledge materials is only high among donor agencies and LNGOs, and this should be considered as an area for improvement for other stakeholders such as academic institutions, the media, and private organizations in particular.

Capacity Building Needs

Staff capacity building needs were also studied. The responses are depicted in Figure 45.

Figure 45 Capacity Building Needs



More than half of the LNGOs recognize the need for capacity building in emergency response, 15% express a need for capacity building in humanitarian standards and early warning dissemination, followed by M & E and others.

Humanitarian Standards

Affiliation with humanitarian standards was measured based on three criteria:

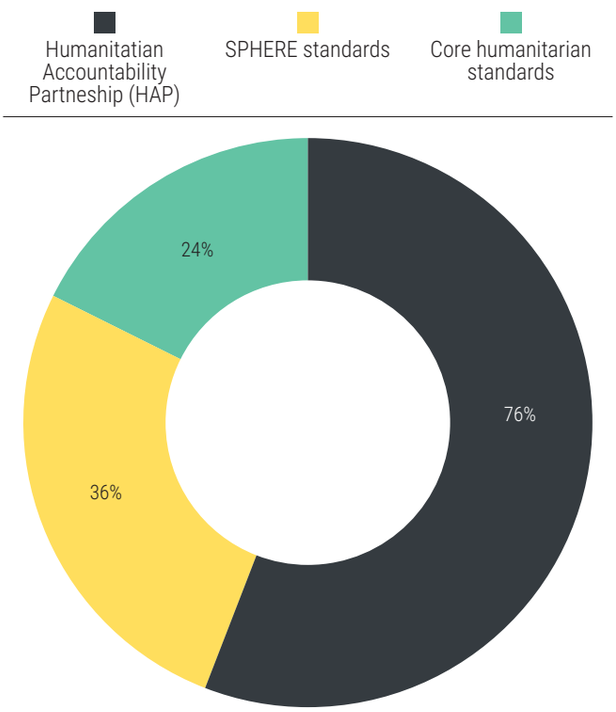
1. Member of the Humanitarian Accountability Partnership (HAP)

2. Acknowledgement of SPHERE Standards

3. Acknowledgement of Core Humanitarian Standards (CHS)

Responses are depicted in Figure 46.

Figure 46 Affiliation with Humanitarian Standards



A total of 76% of LNGOs responded that they comply with HAP. A total of 36% acknowledge SPHERE standards, and 24% comply with CHS. Compliance with Humanitarian Standards appears be an area that requires strengthening.

Perceptions of INGOs

INGOs play an active role in humanitarian emergency intervention in Cambodia. Their engagements in the DRR National Platform in Cambodia are mostly through the Humanitarian Response Forum (HRF). The other involvements are in Office of U.S. Foreign Disaster Assistance (OFDA), Joint Action Group (JAG), Disaster

Risk Reduction Forum (DRR Forum), Intern for Humanitarian Accountabilities Network Cambodia (HANet Cambodia), International Federation of Red Cross and Red Crescent Societies (IFRC), Cambodian Humanitarian Forum (CHF) and ACT Forum Cambodia.

They expressed their concern about the inadequate communications and logistics in emergency response. The level of coordination among INGOs is considered to be above average. INGOs continue to take the role as key contributors to technical capacity, financial support, capacity building, and leadership for local partners and other members. For instance, Humanitarian Response Forum (HRF) has taken a leading role in providing advocacy and improving knowledge and awareness on DRR for local networks. The other capacity building activities tools that HRF focuses upon include Rapid Needs Assessment and contributions in the development of National Contingency Plans.

There is also a willingness by the INGOs to provide technical and financial assistance for activities such as such as cash assessment, contingency plans, and experience and best practice sharing. Red Cross and its sub-national branches are accessible for capacity building activities on Emergency Response and Emergency Response coordination, especially the mobilization of material resources for emergency.

It can be inferred that the majority of INGOs are key enablers for coordinating leadership, technical and financial contributions for capacity building, and INGOs can be called upon for capacity building activities and other relevant humanitarian services.

The Private Sector in Cambodia

Cambodia's real gross domestic product grew more than 7% per annum during 2011-2013, powered by the private sector, which accounts for nearly all of the marketed output. With one of the most open economies in Southeast Asia, expanding market opportunities as Cambodia integrates more closely with the Greater Mekong Sub-region, and a government that sees business as central to the country's future prosperity, the outlook for private enterprise in Cambodia is encouraging. Nevertheless, significant challenges, including a high degree of business informality, combine to reduce productivity and limit the growth and diversification of interlinked supply chains and high-value industries, and generally reduce Cambodia's international competitiveness.

Due to limited responses received from the private sector organizations, a more comprehensive assessment needs to be undertaken for understanding the role and involvement of the private sector in the humanitarian spectrum. However, following the participation of a few private sector organizations during focus group discussions as well as responses to the survey, it was found that the private sector interest in emergency response is low and is limited to providing loans and NFRIs to their stakeholders affected. There is also a poor level of coordination with other humanitarian partners in the country.

Regional Initiatives[49]

In 2005, ASEAN states signed the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), which is among the first legally binding disaster management agreements in the world. The agreement led to the establishment of the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) in 2011 in Bali, Indonesia. The AHA Centre facilitates cooperation and coordination among ASEAN member states with the UN and INGOs for disaster management and emergency response.

49 https://opendevelopmentmekong.net/topics/disasters-and-emergency-response/

The Mekong River Commission (MRC) through its Flood Management and Mitigation Programme (FMMP) and the Drought Management Programme (DMP), assists four countries (Cambodia, Thailand, Vietnam and Laos) on flood and drought forecasting and implementation of regional drought and flooding mitigation and adaptation strategies. Flood forecasting is managed by the Regional Flood Management and Mitigation Centre in Phnom Penh.

ASEAN established the ASEAN Technical Working Group on Pandemic Preparedness and Response in 2008 and adopted the ASEAN Work Plan for multi-sectoral Pandemic Preparedness and Response.

It would be desirable to forge collaboration with these initiatives when developing the Cambodian Road Map for implementation of this program.

Conclusion

Legal and Institutional Framework

Policy, legal, and institutional capacity in the government sector is adequate. Government organizations are instituted through legal enactments within a specified institutional framework. However, ADB[50] has observed that NCDM is limited in terms of both capacity and resources to carry out its core responsibilities of coordinating a multi-agency effort required for disaster risk management. KIIs and FDGs revealed that operational effectiveness of the implementation of existing DM laws and policies is relatively low.

The LNGO sector is also governed and guided by the Law on Associations and NGOs (LANGO, 2015) and, as such, has government recognition for their activities.

Organizational purpose, institutional capacity, and financial management

Vision and mission statements to guide organizational activities are an area requiring improvement for a significant number of organizations in both the government and LNGO sectors.

Due to their alignment with existing regulations, financial procedures seem adequate. However, administrative procedures for many of the organizations in both these sectors require strengthening. Most organizations lack budgetary allocations for DRM.

Similarly, monitoring and evaluation capacity and technical capacity are perceived as low. Organizational emergency response plans for many of the organizations surveyed are non-existent and conducting of mock drills is absent due to resource constraints. These areas need strengthening.

NCDM has formulated a National Contingency Plan (NCP). The Humanitarian Response Forum (HRF) established in 2011, has also developed an HRF Contingency Plan aligned with the structure of NCP. It has been developed in partnership with representatives from NCDM and the Cambodian Red Cross (CRC). It is organized into six sectors, namely Food Security and Nutrition (FSN); Water, Sanitation, and Hygiene (WASH); Shelter and Settlements; Health, Education, and Protection. The aspiration has been that it will be used by stakeholder organizations to develop their own preparedness and response plans. The baseline reveals that this is yet to be accomplished.[51]

Staff Security

Insurance for staff is slightly better in the LNGO sector as compared to the government sector but is an area for significant improvement for both sectors.

50 https://www.adb.org/sites/default/files/linked-documents/46009-003-sd-02.pdf

51 https://www.humanitarianresponse.info/en/operations/cambodia

Technical capacity for emergency response

Majority of the organizations in both government and LNGO sectors perceive staff adequacy as low. Number and type of capacity development initiatives in both sectors are inadequate. INGOs and LNGOs have been the major contributors of funding for staff development.

Following the flood response in 2011 and 2013, humanitarian partners have conducted action reviews/lessons learned workshops in which one of the key priorities identified has been the need for stronger and more comprehensive preparedness, particularly at the sectorial level.[52]

Stakeholder Coordination

Both government and LNGO sectors perceive coordination as adequate. However, the perception of INGOs is that the coordination is inadequate.

One of the main aims of HRF is to enhance coordination between development partners to intervene in humanitarian disasters. The HRF collaborates with National Committee for Disaster Management (NCDM).[53] The objective is to ensure sound coordination and communication on emergency preparedness, and humanitarian response between the UN, INGOs, and international organizations.

Knowledge Management

Most responders perceive this as an area which needs strengthening. HRF has compiled an interactive map with all the common and fundamental operational datasets (CODs/FODs) needed for emergency response.

There is a need to update the database, strategic plans, and documentations both for internal usage of the institutions and for activities relating to DRM. The progress, assessment and debate on the national and local DRR plans needs to be published and shared. One effective approach for doing this is to enhance partnerships and networks with multi-stakeholders particularly with those NGOs which have established strategies and plans.

Affiliation with Humanitarian Standards

It was found that most of the LNGOs focus on and have a high affiliation with HAP as compared to the government sector. However, both sectors could benefit by improvement in their affiliation with humanitarian standards.

Recommendations

Awareness of Humanitarian Coordination

The short course on humanitarian coordination in Cambodia, which has been implemented for 4 years to date, should be further replicated in the provinces for both governmental and non-governmental personnel participating in emergency response work. Ideally the training participants would be a mix of stakeholders to also allow for informal networking opportunities.

Coordinating Platforms at the National and Local Levels

In order to strengthen the coordination, it is recommended that the government continue to integrate with regional and international strategies and take advantage from absorbing strategic policies and frameworks from ASEAN and other international frameworks that have clear guidelines, best practices, and lessons learned. The regional DRR strategies can be

52 ibid
53 https://www.humanitarianresponse.info/en/operations/cambodia

embraced along with updating the national and local DRR strategy.

It is also important to implement the global SFDRR call for National and Local Coordinating Platforms '*to establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for disaster risk reduction*'.[54]

Special attention should be paid to developing partnerships with the private sector, which is lacking at the moment.

Development of a Comprehensive Emergency Response Database

It is recommended that a national to local comprehensive Emergency Response Database be established, which aligns with the call from SF DRR '*to promote real-time access to reliable data, make use of space and in situ information, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data*'.

Enhance Capacity Building of all Stakeholders

As the capacity and the number of numbers of staff for emergency response are lacking, capacity assessment of the government, and the building of National and Regional Partnerships involving multi-stakeholder reviewing of strategies and knowledge and experience sharing will support the government in strengthening its capacity for preparedness for emergency response. Capacity building of local authorities at the sub-national level is essential so that they can integrate DRR into their development plan.

It will also be beneficial to reach consensus on required curriculum with all stakeholders to improve preparedness for response and compile standardized capacity building and training manuals to be used by stakeholders and facilitate their application through a series of Provincial Training of Trainers (ToTs) as relevant.

It is important for LNGOs to improve the capacity of their staff in terms of administrative management, M & E, and emergency needs assessments.

Knowledge Management

It is recommended to enhance the capacity of stakeholders in the development and compilation of knowledge products, to embed lessons learned for enriched sharing through the CHF and the Asian Preparedness Partnership Web Portal. There is also a need to increase knowledge and information sharing between different stakeholders including better partnerships with private sector organizations and academia.

Indicators for Monitoring and Evaluation

Monitoring and Evaluation is an important process in program planning to make sure the implementation of the program is on track and in line with the set objectives. It is important to use the information derived through this baseline assessment to design project activities in each country with targets within the program framework.

A results framework has been developed at the regional level to measure the progress of the project and achievements. Each country will contribute towards achieving the set objectives indicated in the results framework. For achieving

54 SFDRR

that purpose, baseline data from each country will be used to define activities in their road maps towards strengthening emergency response capacities of local actors at national and local level which will be aggregated at the regional level for the program.

KMI 1: Number of agencies with improved operational systems (admin processes, financial reporting system, KM, M&E, etc.), technical capacity and access to information to act effectively in disaster response and recovery phases			
Unit of Measure	Number of agencies	Disaggregated by	• Type of agency - • Govt./LNGO/ Private Sector • Level of the agency - National/Sub-national
Definition:	This indicator measures the agencies that have new or increased ability to respond to disasters effectively. ***Measuring institutional capacity in terms of administrative, financial, technical expertise, networks, etc. are important elements of enabling environment for ensuring effective response by those agencies.*** Indications with improved capacity to act effectively in disaster response and recovery include, but are not limited to: • Improving operational systems (proper administration policy guidelines, financial systems, knowledge management systems, M&E systems, etc.) of humanitarian agencies which are transparent and accountable • Building in-house relevant technical expertise which can be utilized during disaster response and recovery • Improved participation in disaster management coordination networks/ committees with identified role • Engaging with related stakeholders and building networks for sharing of information • Devoting greater resources (human/financial) for Disaster Risk Management activities		
Baseline as of 2017:	The baseline assessment conducted through the program showed the following level of capacities among local actors in Nepal: • Government has limited capacity and resources to carry out its core responsibilities of coordinating a multi-agency effort required for disaster risk management • Inadequate number and type of capacity development initiatives • Need for stronger and more comprehensive disaster preparedness, particularly at sectorial level • Low level of access to information in case of a disaster		
Target 2019:	Through the program interventions, it is expected to have at least 3 institutions with improved capacity in terms of operational, technical and access to information to act effectively in disaster response and recovery phases		
Data Source	• Baseline report, Organizational Capacity Assessment survey results, evaluation reports		

KMI 2: Number of local rapid deployment teams established/strengthened with necessary capacity for better response			
Unit of Measure	Number of teams	Disaggregated by	N/A
Definition:	This indicator measures the established/strengthened local rapid deployment teams which can be utilized in disaster response quickly. Strengthening capacities includes skill trainings, networking, identified roles and responsibilities, and access in case of an emergency. Rapid deployment teams can assist disaster affected communities within hours which is key in effective emergency response. Rapid deployment teams consist of professionals such as search and rescue experts, fire fighters, medical staff, troops, etc. and/or volunteers who can help communities during first 48 hours of a disaster		
Baseline as of 2017:	The baseline assessment conducted through the program showed the need for a well-organized team of professionals who are technically qualified to carry out response functions within first 48 hours.		
Target 2019:	Through the program interventions, it is expected to form a group of professionals and volunteers attached with the government and build their technical capacity to carry out functions in first 48 hours after a disaster.		
Data Source	• Country reports • Media reports		

KMI 2: Number of active emergency coordination committees/forums comprising of actors such as govt., LNGO and private sector with identified roles for each			
Unit of Measure	Number of committees/ forums	Disaggregated by	• Level of the committee/forum - • National / Sub-National
Definition:	This indicator measures the engagement of different stakeholders in emergency coordination which is important for effective response. Emergency coordination committees can be at national level as well as at sub-national level comprise of local actors such as government, LNGO, private sector with identified role for each. Active emergency coordination committee is a one which meets at least once in 3 months bringing all members to discuss about preparedness for response activities in countries.		
Baseline as of 2017:	The baseline assessment conducted through the program showed the smooth functioning of National Emergency Operation Center (NEOC) together with Regional Emergency Operation Centres (REOCs) and the District Emergency Operation Centres (DEOCs). However, the role for LNGO and private sector in the coordination mechanism is not clearly defined.		
Target 2019:	Through the program interventions, it is expected to improve the emergency coordination by engaging LNGO as well as private sector to the existing coordination mechanism with identified role for each actor.		
Data Source	• Government records • Media reports • Coordination meeting minutes • Interviews		

In order to monitor the country level progress in Cambodia, a monitoring framework (Table 2) was developed, which was guided by the baseline data and the regional program results framework. It is expected that the country program team, together with concerned stakeholders, define targets considering short-term, medium-term and long-term time frames for these indicators within the program framework. This framework will be a tool for monitoring the progress of activities and achievements towards set objectives, while ensuring accountability and transparency of the progress of the country program.

Table 2

Indicators to measure progress

No.	Expected result/ Outcome	Baseline status	Recommendations	Indicators to measure the progress and impact
1	Strengthened emergency response coordination mechanisms and partnerships	• Low level of operational effectiveness of the implementation of existing DM laws and policy • Lack of multi-agency coordination mechanism • Non-existence of organizational emergency response plans	• Implement the SFDRR call for National and Local Coordinating Platforms	• Active emergency response coordination committees comprising of actors such as govt., LNGO and private sector with identified roles for each from national to local level • Regular coordination meetings organized by national/local platforms involving all concerned stakeholders • % of LNGOs and Private sector entities in government led coordination platforms
2	Improved capacities on emergency response through priority training and learning actions	• Government has limited capacity and resources to carry out its core responsibilities of coordinating a multi-agency effort required for disaster risk management • Inadequate number and type of capacity development initiatives • Need for stronger and more comprehensive preparedness, particularly at sectorial level	• Training course on humanitarian coordination to be replicated in the provinces • Reach consensus on curriculum needed with all stakeholders to improve preparedness for response and compile standardized capacity building and training manuals to be used by stakeholders • Carry out Provincial Training of Trainers (ToTs) as relevant and practicable	• Agencies (govt., LNGO, private) having adequate technical capacity (sufficient staff, established SoPs, practice on simulation drills, etc.) for emergency response • Priority training programs (ToTs) conducted • Number of people trained • Learning events, drills, simulations, and field visits/study tours facilitated
3	Learning and knowledge management systems on emergency response initiated and institutionalized	• Very low level of learning and knowledge management capacity which need strengthening	• Establish a national to local comprehensive Emergency Response Database • Enhance the capacity of stakeholders in the development and compilation of knowledge products	• Online platform at the national level for knowledge and information sharing • Knowledge products developed and available for public access • Experts/volunteers registered in a roster which can be accessed for emergency response

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