

ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊີນລາວ ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ຍຸດທະສາດ ການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ 2021 - 2030

National Strategy on Disaster Risk Reduction (NSDRR) 2021 - 2030





ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ

ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ

ນາຍົກລັດຖະມົນຕີ

ເລກທີ / 10/ນຍ.

บะถอบทูว_วรฐจัน, วันที 26.07.2021

ດຳລັດ

ວ່າດ້ວຍ ການຮັບຮອງ ແລະ ປະກາດໃຊ້ ຍຸດທະສາດຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ 2021-2030

- ອີງຕາມ ກິດໝາຍວ່າດ້ວຍ ລັດຖະບານ (ສະບັບປັບປຸງ) ສະບັບເລກທີ 04/ສພຊ, ວັນທີ 08 ພະຈິກ 2016;
- ອີງຕາມ ກິດໝາຍວ່າດ້ວຍ ແຮງງານ ສະບັບເລກທີ 43/ສພຊ, ວັນທີ 24 ທັນວາ 2016;
- ອີງຕາມ ໜັງສີສະເໜີ ຂອງກະຊວງ ແຮງງານ ແລະ ສະຫວັດດີການສັງຄົມ ສະບັບເລກທີ 2178້/ຮສສ, ວັນທີ 18 ມິຖຸນາ 2021.

ນາຍົກລັດຖະມົນຕີ ອອກດຳລັດ:

- ມາດຕາ 1 ຮັບຮອງ ແລະ ປະກາດໃຊ້ ຍຸດທະສາດຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ 2021-2030 ຕາມການ ເຫັນດີ ໃນກອງປະຊຸມລັດຖະບານ ສະໄໝສາມັນ ປະຈຳເດືອນ ພຶດສະພາ 2021 ທີ່ໄດ້ຮັບຮອງ ຢ່າງເປັນ ທາງການແລ້ວ.
- ມາດຕາ 2 ມອບໃຫ້ກະຊວງ ແຮງງານ ແລະ ສະຫວັດດີການສັງຄົມ ເປັນເຈົ້າການ ແລະ ປະສານສົມທົບກັບພາກສ່ວນ ທີ່ກ່ຽວຂ້ອງ ເພື່ອຜັນຂະຫຍາຍ ແລະ ຈັດຕັ້ງປະຕິບັດຍຸດທະສາດຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ ສະບັບນີ້ ໃຫ້ມີປະສິດທິພາບ ແລະ ປະສິດທິຜົນ.
- ມາດຕາ 3 ບັນດາກະຊວງ, ອົງການ, ແຂວງ, ນະຄອນຫຼວງວຽງຈັນ ແລະ ພາກສ່ວນອື່ນ ທີ່ກ່ຽວຂ້ອງ ຈື່ງຮັບຮູ້, ໃຫ້ການ ຮ່ວມມື ແລະ ພ້ອມກັນຈັດຕັ້ງປະຕິບັດ ໃຫ້ມີປະສິດທິພາບ ແລະ ປະສິດທິຜົນ.

ມາດຕາ 4 ດຳລັດສະບັບນີ້ ມີຜົນສັກສິດ ນັບແຕ່ວັນລົງລາຍເຊັນເປັນຕົ້ນໄປ

ລັດຖະບານແຫ່ງ ສປປ ລາວ ນາຍົກລັດຖະມົນຕີ

ขับลำ อีพาอับ

ຄຳນຳ

ຍຸດທະສາດການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ ສະບັບນີ້ ໄດ້ຮັບການຄົ້ນຄວ້າ ແລະ ສ້າງຂຶ້ນ ໂດຍ ການປົກສາຫາລືຮ່ວມກັນຂອງພາກສ່ວນທີ່ກ່ຽວຂອງຕ່າງໆຢ່າງກວ້າງຂວາງ ຊຶ່ງໄດ້ນຳໃຊ້ຫຼັກການ ຂອງສາກົນໃນດ້ານ ວຽກງານຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດ ໂດຍສະເພາະ ຂອບແຜນງານເຊັນໄດ ວ່າດ້ວຍ ການຫຼຸດຜ່ອນຄວາມສ່ຽງ ໄພພິບັດ 2015 - 2030. ຂັ້ນຕອນການດຳເນີນການສ້າງຍຸດທະສາດ ແມ່ນພາຍໃຕ້ການຊີ້ນຳ ຂອງຄະນະກຳມະການ ຮ່າງຍຸດທະສາດການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ ທີ່ປະກອບມີ ກະຊວງແຮງງານແລະສະຫວັດດີການສັງ ຄົມ, ບັນດາຂະແໜງການທີ່ກ່ຽວຂ້ອງຂອງລັດ, ອົງການຈັດຕັ້ງມະຫາຊົນ, ທະນາຄານພັດທະນາອາຊີ (ADB) ທີ່ໄດ້ໃຫ້ການສະໜັບສະໜູນຊ່ວຍເຫຼືອທາງດ້ານແຫຼ່ງທຶນ ແລະ ວິຊາການ ໂດຍໄດ້ດຳເນີນການສຶກສາຄົ້ນຄວ້າ ປະເມີນ ດ້ວຍການເກັບກຳຂໍ້ມູນ ແລະ ການວິໃຈແຫຼ່ງຂໍ້ມູນທີ່ກ່ຽວຂ້ອງ, ການຈັດກອງປະຊຸມຄະນະວິຊາການຮ່ວມກັນຫຼາຍຄັ້ງ ທັງຢູ່ຂັ້ນສຸນກາງ ແລະ ທ້ອງຖິ່ນ ລວມທັງ ການຈັດກອງປະຊຸມລະດົມແນວຄວາມຄິດກັບຄູ່ຮ່ວມງານສາກົນ ຕໍ່ກັບຮ່າງ ຍຸດທະສາດການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ ສະບັບນີ້.

ພ້ອມນີ້ ຍຸດທະສາດດັ່ງກ່າວ ກໍ່ໄດ້ນຳສະເໜີຜ່ານ ຄະນະກຳມະການຄຸ້ມຄອງໄພພິບັດ ຂັ້ນສູນກາງ ແລະ ຂັ້ນ ແຂວງ. ສະນັ້ນ, ທາງດ້ານໂຄງສ້າງ ແລະ ເນື້ອໃນ ຂອງຍຸດທະສາດສະບັບນີ້ ເຫັນວ່າ ມີຄວາມເໝາະສີມຕາມແບບ ສະບັບຂອງ ສປປ ລາວ, ເຊິ່ງມີເນື້ອໃນທີ່ຊັດເຈນ ສອດຄ່ອງກັບນະໂຍບາຍ ແລະ ແຜນພັດທະນາເສດຖະກິດ - ສັງຄົມ ແຫ່ງຊາດ ແລະ ແຜນພັດທະນາຂອງບັນດາຂະແໜງການທີ່ກ່ຽວຂ້ອງ, ທັງສາມາດເຊື່ອມໂຍງກັບພາກພື້ນ ແລະ ສາກົນ. ຍຸດທະສາດສະບັບນີ້ ປະກອບດ້ວຍວິໄສທັດ ແລະ ເປົ້າໝາຍ ຮອດປີ 2030, 07 ຍຸດທະສາດທີ່ສຳຄັນ ແລະ 12 ຈຸດປະສິງ, ໃນແຕ່ລະຈຸດປະສິງ ກໍ່ໄດ້ກຳນົດບັນດາໜ້າວຽກຈຸດສຸມທີ່ຈະໄດ້ເອົາໃຈໃສ່ປະຕິບັດໃນໄລຍະ 2021 ຫາ 2030.

ຍຸດທະສາດການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດແຫ່ງຊາດ ສະບັບນີ້ ໄດ້ສະແດງໃຫ້ເຫັນ ຄວາມພະຍາຍາມ ຄວາມມຸ່ງໝັ້ນ ແລະ ຄວາມຮັບຜິດຊອບຂອງລັດຖະບານແຫ່ງ ສປປ ລາວ ໃນການເຊື່ອມໂຍງກັບພາກພື້ນ ແລະ ສາກິນ ໂດຍສະເພາະແມ່ນການຮ່ວມມືກັບບັນດາອົງການຈັດຕັ້ງສາກິນ ແລະ ຄູ່ຮ່ວມພັດທະນາ ໃນການຍຶກສູງພາລະ ບົດບາດ ແລະ ພັນທະໃນການສືບຕໍ່ເພີ່ມທະວີການຮ່ວມມືກັນ ໃນການຈັດຕັ້ງປະຕິບັດວຽກງານຄຸ້ມຄອງໄພພິບັດ ແລະ ການຫຼຸດຜ່ອນຄວາມສ່ຽງໄພພິບັດ ຢູ່ ສປປ ລາວ ໃຫ້ເຊື່ອມສານກັບບັນດານະໂຍບາຍ, ຍຸດທະສາດ ແລະ ສິນທິສັນຍາ ຕ່າງໆ ຂອງພາກພື້ນ ແລະ ສາກິນ ໃຫ້ມີບາດກ້າວຂະຫຍາຍຕົວ ແລະ ມີປະສິດທິຜິນໃນອະນາຄົດ.

ນະຄອນຫຼວງວຽງຈັນ, ວັນທີ 18 / 10 / 2 1

ລັດຖະມົນຕີກະຊວງ ແຮງງານ ແລະ ສະຫວັດດີການສັງຄົມ ຮອງປະທານ ຜູ້ປະຈຳການ ຄ<u>ະນະ</u>ກຳມະການຄຸ້ມຄອງໄພພິບັດຂັ້ນສູນກາງ

ໃນຄຳ ຂັດທິຍະ



Lao People's Democratic Republic Peace Independence Democracy Unity Prosperity

Prime Minister

No. 510 /PM Vientiane Capital, dated 26 July 2021

Decree

on Adoption and Promulgation of the National Strategy on Disaster Risk Reduction 2021-2030

- According to the Law on the Government of Lao PDR (Revised), No. 04/NA, dated 08 November 2016;
- According to the Labor Law No. 43/NA, dated 24 December 2016;
- According to the proposal of the Ministry of Labor and Social Welfare, No. 2178/MLSW, dated 18 June 2021.

The Prime Minister issues the Decree to:

- Article 1: Official adoption and promulgation of the National Strategy on Disaster Risk Reduction 2021-2030 based on the agreement at the Ordinary Government Meeting Session in May 2021, which has been officially approved.
- Article 2: Assign the Ministry of Labor and Social Welfare to take leadership, in coordination with the concerned sectors to translate this National Strategy on Disaster Risk Reduction into effective and efficient actions and implementation.
- Article 3: Ministries, agencies equivalent to Ministries, provinces, Vientiane Capital and other concerned sectors acknowledge, cooperate and implement this Decree effectively and efficiently.
- Article 4: This Decree is effective from the date of signature.

Government of Lao PDR Prime Minister

Signed and stamped

Phankham Viphaphanh

Table of Contents

TABLE OF CONTENTS	
FOREWORD	
ACKNOWLEDGEMENTS	
GLOSSARY OF TERMS	
RONYMS & ABBREVIATIONS	
1. INTRODUCTION	I
1.1. Disaster Risk Situations in Lao PDR	1
1.4. Development Process of the National Strategy on Disaster Risk Reduction	3
II DISASTER RISK REDUCTION IN THE GLORAL REGIONAL AND NATIO	NAI.
· ·	
2.3. DRR in the National Context	6
2.3.1. Historical Disaster Situations and Impacts	6
2.3.2. Related Laws and Regulations	9
2.5.0. Rey Chanenges and Lessons learned	14
III. NATIONAL STRATEGY FOR DISASTER RISK REDUCTION	17
<u>.</u>	
3.4.1. Strategy 1: Develop and strengthen the disaster prevention system, disaster risk	
reduction, disaster preparedness and response	17
3.4.2. Strategy 2: Strengthen disaster response and emergency assistance	
3.4.3. Strategy 3: Develop and strengthen post-disaster recovery.	19
3.4.4. Strategy 4: Strengthen sectoral coordination on disaster risk reduction, emergency	
response and recovery.	19
3.4.5. Strategy 5: Enhance national and local DRR education and training	20
3.4.6. Strategy 6: Promote participation and stakeholder engagement and inclusion	20
3.4.7. Strategy 7. Budget and disaster risk financing	
VI. IMPLEMENTATION MEASURES	22
4.1. Multi-Sector Coordination and Cooperation Mechanism	22
4.1. Multi-Sector Coordination and Cooperation Mechanism	
4.3. Cooperation with Development Partners	

4.4. Awareness Raising and Capacity Building	23
4.5. Review, Reporting and Evaluation	24
4.5.1. NSDRR Annual Progress Reports to the Government between 2021 and 2030	
4.5.2. NSDRR Mid-Term Review to be completed by July 2025	
4.5.3. NSDRR Final Review to be completed by July 2030	25
ANNEX: DRR FOCUS AREAS FOR GOVERNMENT PLANNING IN 2021-2030	
UNDER THE 12 OBJECTIVES OF THE NSDRR	26
Strategy 1: Develop and strengthen the disaster prevention system, disaster risk reduction, disaster preparedness and response.	26
Strategy 2: Strengthen disaster response and emergency assistance	37
Strategy 3: Develop and strengthen post-disaster recovery	39
Strategy 4: Strengthen sectoral coordination on disaster risk reduction, emergency response recovery	
Strategy 5: Enhance national and local DRR education and training	44
Strategy 6: Promote participation and stakeholder engagement and inclusion.	
Strategy 7. Budget and disaster risk financing	49
REFERENCES	51

Foreword

This National Strategy on Disaster Risk Reduction (NSDRR) had been researched and developed through nation-wide consultations, and has applied international principles on disaster risk reduction (DRR), particularly the Sendai Framework for Disaster Risk Reduction 2015-2030. This NSDRR was developed under the guidance of the NSDRR Drafting Committee, led by the Ministry of Labor and Social Welfare, and consisting of concerned government sectors, mass organizations, and the Asian Development Bank (ADB). ADB provided both financial and technical support, conducting research and assessments through collecting and analyzing related data/information, organizing many technical consultation sessions at both central and local levels, and also organizing a consultation with development partners to seek feedback on the draft NSDRR.

This strategy was also presented to the Central and Provincial Disaster Management Committees. Therefore, the structure and contents of this strategy are appropriate to the different contexts of Lao PDR, clear and in line with the policies and the National Socio-Economic Development Plans, and development plans of concerned sectors, and it links to regional and global levels. The NSDRR consists of a vision and goals for 2030, seven key strategies and twelve objectives. Each of these objectives also sets out the priority focus areas for implementation from 2021-2030.

This NSDRR illustrates the efforts, commitments and responsibilities of the Government of Lao PDR in connection with the regional and international levels, especially cooperation with international organizations and development partners, to enhance the roles and obligation to continue cooperation in implementing disaster management and disaster risk reduction in Lao PDR and to integrate with regional and international policies, strategies and conventions progressively and effectively in the future.

Acknowledgements

The Ministry of Labor and Social Welfare, on behalf of the Central Disaster Management Committee (CDMC) and the Government of Lao PDR, would like to express our sincere gratitude to those who were involved in and contributed to the research and development of this National Strategy on Disaster Risk Reduction (NSDRR). We gratefully acknowledge the Drafting Committee of the NSDRR, comprising representatives from different ministries and agencies such as Ministry of Planning and Investment (MPI), Ministry of Labor and Social Welfare (MLSW), Ministry Natural Resources and Environment (MONRE), Ministry of Agriculture and Forestry (MAF), Ministry of Public Works and Transport (MPWT), Ministry of Education and Sports (MOES), Ministry of Health (MOH), Ministry of Finance (MOF), Ministry of Defense (MOD), Ministry of Public Security (MOPS), Ministry of Foreign Affairs (MOFA), Ministry of Energy and Mines (MEM), Ministry of Industry and Commerce (MOIC), Ministry of Science and Technology (MOST), Ministry of Post, Telecommunications and Communications (MPTC), Ministry of Information, Culture and Tourism (MICT), Lao Women's Union (LWU), Lao Trade Union (LTU), Lao Youth Union (LYU), Lao Red Cross, Bank of Lao PDR and other organizations. Their valuable contributions in both wisdom and time have resulted in the success of the NSDRR.

We would like to express our special sincere appreciation to Asian Development Bank (ADB), especially Ms. Takako Morita, Senior Counsel, Office of the General Counsel, Mr. Steven Goldfinch, Disaster Risk Management Specialist, Sustainable Development and Climate Change Department, Dr. Mary Picard, International Consultant, and Dr. Souklaty Sysaneth, National Consultant, for providing both technical and financial support on research, consultations and drafting of this NSDRR.

The Ministry of Labor and Social Welfare, on behalf of the CDMC and the Government of Lao PDR, is also grateful to the United Nations Office for Disaster Risk Reduction in Bangkok, Thailand (UNDRR) and other UN network organizations in Lao PDR, development partners, and civil society organisations for their cooperation, sharing ideas and comments to the contents of the NSDRR.

Glossary of Terms

Disaster is defined as a man-made or natural catastrophe that causes severe danger and extensive damage to health, life, assets, the economy and livelihoods of the people in society, both in short-term and long-term horizons.

Natural disaster refers to a natural event, phenomenon or change, such as flood, drought, storms, frost, earthquake, landslide, outbreak of pest and disease.

Man-made Disaster refers to an emergency event or environmental hazard caused by human activities, such as urban fires, forest fire, dust, radiation, chemical leakages, unexploded ordnance, or accidents.

Disaster Risk refers to the possibility of the occurrence of a natural and/or man-made event leading to loss.

Disaster Risk Reduction (DRR) means the measures and mobilization to prevent or protect against possible events, whether natural and/or man-made, which may result in impacts and damage to health, lives, assets, the economy or the environment, which are based on the strategies and maps of identified disaster risks and include the application of engineering techniques for infrastructure construction that is resilient to disasters, as well as public awareness campaigns.

Disaster Management (DM) is defined as the implementation of outlined principles, regulations and measures related to effective prevention, control and recovery after disaster incidents that are in compliance with the law.

Disaster Prevention is defined as the outlining of plans and measures for preventing and reducing disaster risk.

Resilience refers to the ability to tolerate, respond to, and quickly recover from a disaster.

Risk Assessment is defined as evaluating the level of risk, damage, danger, historical disaster occurrence and prediction of potential risk, which could damage health, life, assets, the economy and the environment.

Disaster Preparedness and Response is defined as a process of preparing, planning and setting up measures for preventing and/or responding to a disaster event to reduce damage through actions such as surveillance, danger warning, overseeing and commanding operations, search and rescue, warehousing systems for storage of supportive equipment, providing emergency relief, temporary shelters, medical services, using the military forces, police and civilian, equipment, transportation equipment, communications and facilities, coordinating and cooperating with all stakeholders, and requesting assistance from other countries based on regional and international cooperation frameworks of the Government.

Disaster Control refers to the limitation of an ongoing disaster, so it won't cause serious harm or damage to health, human life, and property of the state, communities and people.

Post Disaster Recovery is defined as the restoration of the livelihoods of people affected by disaster, repairing and reconstructing the infrastructure affected and/or damaged by disaster to the same standard, or better than before.

Construction or New Construction refers to the use of materials to make a building on a vacant plot of land or on the land with demolished buildings or destroyed by a disaster.

Build Back Better is defined as the implementing actions during rehabilitation and reconstruction phase, after a disaster to increase the resilience of the nations and communities by integrated disaster risk reduction measures to restore physical infrastructure and societal systems, revitalization of livelihoods, economies and the environment that are secure and safe in the future.

Restoration refers to improving, modifying, remodeling of the external structure, repairing of a broken or dilapidated part, or demolishing some parts of a building.

Renovation is defined as the process of repairing, maintaining the original form, design, and details of the building by adding and supplementing the missing original parts.

Humanity refers to mercy and compassion toward other people.

Humanitarian Work is defined as the implementation of material and psychological relief aids to protect people's life and health, and to respect for human rights, including the promotion and development of human sustainability.

Victim refers to those who is physically, mentally, emotionally and materially affected by a natural and man-made disaster.

Insurance refers to the management of a risk by purchasing an insurance policy, under which the insurer pays the agreed value of the insured person's property, goods or services when they are damaged or lost as agreed in the insurance contract.

Acronyms & Abbreviations

AADMER ASEAN Agreement on Disaster Management and Emergency

Response

ADB Asian Development Bank

ASEAN Association of South East Asian Nations CDMC Central Disaster Management Committee

CEDAW Convention on the Elimination of All Forms of Discrimination

Against Women

DM Disaster Management

DM Law Law on Disaster Management
DRM Disaster Risk Management
DRR Disaster Risk Reduction
GBV Gender-based Violence

Lao-Di Lao disaster management data system

LWU Lao Women's Union

MAF Ministry of Agriculture and Forestry MEM Ministry of Energy and Mines

MICT Ministry of Information Culture and Tourism.
MLSW Ministry of Labour and Social Welfare

MOD Ministry of Defence

MOES Ministry of Education and Sports

MOF Ministry of Finance
MOH Ministry of Health
MOHA Ministry of Home Affairs

MOIC Ministry of Industry and Commerce

MONRE Ministry of Natural Resources and Environment

MPI Ministry of Planning and Investment
MPS Ministry of Public Security (Police)
MPWT Ministry for Public Works and Transport
MST Ministry of Science and Technology

NSDRR National Strategy for Disaster Risk Reduction NSEDP National Socio-Economic Development Plan

PDNA Post Disaster Needs Assessment SDGs Sustainable Development Goals

SFDRR Sendai Framework for Disaster Risk Reduction 2015-2030

SOPs Standard Operating Procedures
TWG Technical Working Group
WHO Word Health Organization
UXO Unexploded ordinance

I. Introduction

1.1. Disaster Risk Situations in Lao PDR

Lao PDR is a landlocked country, with a number of unique geographical regions. About two-thirds of the land area is mountainous. The country has a tropical climate with two seasons. The dry season is between mid-October and mid-May and is influenced by the northeast monsoon, mainly during October to February. The coolest period of this season is November to January while the hottest period is from March to May. The rainy season is from mid-May to mid-October, when the southwest monsoon winds from the Indian Ocean and the Gulf of Thailand bring high humidity into Lao PDR. Between July and September there are heavy rainfalls, especially very frequent rainfalls in August. The average annual rainfall across the country is between 1,900 to 3,500 mm. The wet season is generally hot to extremely hot.

Due to its geographical conditions and the location of the country, Lao PDR has a high risk from natural disasters and climate change, such as floods, droughts, storms, and landslides, as well as epidemics, etc. The country still relies on natural resources and agricultural production and has limited and insufficient disaster prevention, preparedness and response capabilities, and this is partly why it remains a least developed country. Climate change is also a risk factor for Lao PDR, as more people will be affected by natural disasters. Increasing rainfall and temperatures are expected to alter the Mekong hydrological system, and flood and drought risks are expected to increase.

The National Disaster Risk Report 2010 indicated the situations of risk and vulnerable areas affected by major disasters such as floods, landslides, storms and droughts as follows:

- + Flood risk areas: 8 rivers are risky for flooding, include: Nam Ou, Nam Ngum, Nam Ngiep, Nam Xan, Xe Bang Fai, Xe Bang Hieng, Xedon and Xe Kong. The data analysis indicated that many districts located along the eight rivers are vulnerable to floods in different areas and depths. It was estimated that a total of 115,322 people in the eight flood-prone areas are unable to help themselves or still dependent on other people, who are at risk of being affected by the floods, of which 77% are in floodplains with a depth of more than 2 meters. In addition, the infrastructure that is at risk and may be affected by floods, includes: residential buildings and housing, agriculture, hospitals / clinics (health centers), schools, clean water sources etc.
- + Storm risk areas: This includes typhoons or cyclones, and tropical storms, which cause strong winds and heavy rain as well as hailstorms that may cause death or injury and affect or damage property of people, residential houses, public buildings, schools, hospitals, agricultural production areas etc. It was estimated that approximately 67.96% of the population may be affected by these storms with intensity of 63.17 km/h about 28.45% will be affected by tropical low pressure in the range of 0-62 km/h; about 3.53% will be affected by Type 1 storms with the intensity of between 119-153 km/h; and about 0.06% will be affected by Type 2 storms with the wind speeds of between 154-177 km/h, mainly in Khammouane province.
- + **Drought risk areas**: Droughts mostly have direct impacts on agriculture and food security, people's livelihoods, clean water sources, and sanitation. The data analysis indicated the common drought risk areas in different provinces with moderate and severe levels as follows:
 - The dry season, between October and March, may occur in Oudomxay, Vientiane, Khammouane, Bolikhamxay and Savannakhet provinces;

- The rainy season, between April and September, is likely to occur in Xiengkhouang province, mainly in Xaysomboun province, the area adjacent to Bolikhamxay province, Dongheng area in Savannakhet province;
- The rainy season, between June and September, is likely to occur in Xiengkhouang, most of Houaphanh and Xaysomboun provinces, and the northern part of Bolikhamxay province, the eastern part of Savannakhet province, and the northern part of Salavane province;
- In one-year period, between April and March, drought may occur in Xiengkhouang and surrounding areas.

1.2. Role and Significance of a National Strategy on Disaster Risk Reduction

It is well known that natural and man-made disasters have direct impacts on the health, life and property of people, cause damage to the economic, social and environmental infrastructure, livelihoods, business opportunities and supply chains. For over 10 years, more disaster events have occurred every year and have increased in intensity, causing significant impacts and damage to the health, life, property, economy, society and environment of the country, especially the catastrophic floods in 2018 that were caused by both natural and man-made hazards, resulting in many deaths and disappearances, and severe economic, social and environmental damage, estimated at 3,166.9 billion kip (approximately US\$ 371 million) or about 2.1 percent of GDP. The impacts of the Covid-19 virus outbreak also forced the Government to revise and adjust its 2020 economic growth target from 6.5 percent to 3.3 to 3.6 percent, based on macroeconomic projections.

The Government has recognized the importance and necessity of continuing to reduce poverty and promote better living standards and opportunities for the Lao people through sustainable development, especially in terms of operational capacity and resource availability for disaster risk reduction, preparedness, emergency response and recovery. The DM Law in 2019, and the changes in the legal framework and the institutional arrangement it brings, are aimed at addressing this issue. This National Strategy on Disaster Risk Reduction to 2030 is significantly important and has the goal to strengthen disaster management in prevention and reduction of disaster impacts, preparedness emergency response and recovery after a disaster, including resilient reconstruction. The intention is to extend the implementation of the DM Law adopted in 2019, and also to implement regional and global policies and strategies on DRR, including the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR), the Paris Agreement on climate change, the ASEAN Agreement on Disaster Management and Emergency Response, the ASEAN Action Plan on Disaster Management and Emergency Response for 2021-2025, the ASEAN Declaration on Unity in Disaster Response, and the 2030 Agenda for Sustainable Development (the Sustainable Development Goals, or SDGs).

1.3. Scope of the Strategy

The NSDRR aims to prevent and reduce disaster risks, to prepare and coordinate for emergency response, and to restore economic, social, economic and environmental infrastructure after a disaster. This includes:

• Socio-economic development management to prevent the creation of new disaster risks, and strengthening the economic, social, health and environmental resilience of the Lao people;

- Effective DRR cannot be done by the Government alone, but Government leadership, resources and coordination mechanisms are needed to ensure that the different stakeholders can contribute to DRR; and
- There is a need to strengthen community resilience and capacity to respond to disasters. The severe impacts of disasters in vulnerable communities, especially in remote rural areas, highlight how important it is to improve community resilience through the Government's ongoing efforts in poverty reduction and sustainable development, as well as community based disaster risk reduction (CBDRR).

1.4. Development Process of the National Strategy on Disaster Risk Reduction

This strategy was developed by the Ministry of Labor and Welfare Society (LSW) with technical and financial support from the Asian Development Bank (ADB), which initiated the research from 2019 to 2020. The basic information and data used to research and determine the content of the strategy came from the Disaster Risk Data Reports in 2010 and 2012, the PDNA Report in 2018, disaster data in Lao-Di database, and related legislation documents, such as DM Law adopted and promulgated in 2019.

The drafting of this strategy was conducted with extensive consultations, with the organization of several technical workshops, consultation workshops to obtain feedbacks from multi-stakeholders in central and local levels, and a consultation workshop with international development partners through video conference. The revised draft NSDRR to addressing the comments from central and local levels as well as development partners was sent to concerned sectors in different ministries and equivalents for further comment.

This strategy is appropriately developed according to the structural model of Lao PDR, which consists of four sections: Part I. Introduction; Part II. Disaster risk reduction in the global, regional and national context; Part III. National Strategy on Disaster Risk Reduction; and Part IV. Implementation Measures.

II. Disaster Risk Reduction in the Global, Regional and National Context

2.1. DRR in the International Context

Over the past decade, climate related disaster events have seen an increasing frequency and intensity of disasters such as floods, droughts, storms, and landslides, in addition to earthquakes and volcanic eruptions in many countries, which have caused significant damage and loss of life, property, economy, society and environment. In 2019, there were 115 emergency events in 31 countries of the Asia-Pacific region, including floods, storms, earthquakes, wildfires, volcanic eruptions and epidemics, affecting more than 54.9 million people, killing 5,338 people.¹

Recognizing the dangers and impacts of disasters, disaster risk reduction is seen as a significant issue and a top priority in global and regional arenas to jointly seek all means for serious and systematic prevention to address the issues, as seen by the adoption of the Paris Agreement on climate change at the 70th UN Summit in New York in 2015; and the adoption of the Sendai Framework for Disaster Risk Reduction at the 3rd World Conference on Disaster Risk Reduction in Japan in 2015, which provides an important direction and basis for coordination and joint action to reduce disaster risk alongside the SDGs in the 2030 Agenda.

The NSDRR supports Lao PDR's implementation of the goal and priorities under the Sendai Framework for Disaster Risk Reduction (SFDRR). These include:

- Adopting a goal to prevent the creation of risk, reduce existing risk, and strengthen economic, social, health and environmental resilience;
- Understanding the disaster risks facing Lao PDR, using risk knowledge and assessments to identify risks at the local and national level, with attention to the technical, financial and administrative capacity to manage disaster risk (Priority 1);
- Strengthening disaster risk governance, including integrating DRR within and across all sectors, and defining sector roles and responsibilities (Priority 2);
- Investing in DRR for resilience, by allocating the necessary resources for the development and the implementation of DRR strategies at all levels of government and in all relevant sectors (Priority 3); and
- Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction, integrating DRR at all stages, to make communities and the country as a whole more resilient to disasters (Priority 4).

In addition to the Sendai Framework, a broad national approach to risk management in development is part of implementing Lao PDR's commitments under other key international agreements, especially the Paris Agreement 2015 on climate change,² and the Sustainable Development Goals (SDGs) which are part of the United Nations 2030 Agenda.³ Other relevant international agreements focus on reducing risk creation and vulnerability in urban development,⁴ financing for development⁵ and humanitarian response that supports resilience.⁶

The seventeen (17) global SDGs address a range of challenges and all of them are relevant, but for DRR in Lao PDR, particular attention needs to be paid to nine (9) of the global SDGs, as well as Lao PDR's own 18th SDG on UXO, as set out in the table below.

Table 1: The 10 Most Relevant Sustainable Development Goals for DRR in Lao PDR

SDG No.	The 9 Goals that are most relevant for the DRR Strategy in Lao PDR
1	End poverty in all its forms everywhere
2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3	Ensure healthy lives and promote wellbeing for all, at all ages
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5	Achieve gender equality and empower all women and girls
6	Ensure availability and sustainable management of water and sanitation for all
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
11	Make cities and human settlements inclusive, safe, resilient and sustainable
13	Take urgent action to combat climate change and its impacts
18	Lives Safe from UXO (Lao PDR's national 18th SDG)

The Paris Agreement, the Sendai Framework, the SDGs and the supporting cooperation through a range of international agencies, are an important source of goals, standards, technical guidance and information sharing. All of these agreements support countries seeking to reduce climate and disaster risk and losses, and to build sustainable development.

2.2. DRR in the Regional Context

This NSDRR supports country-level implementation of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), the regional agreement that sets the foundation for regional cooperation, coordination, technical assistance, and resource mobilization in all aspects of disaster management and emergency response.

The NSDRR supports implementation of the five priority programmes of the AADMER Work Programme 2021-2025. Endorsed by the ASEAN Committee on Disaster Management at its 37th meeting on 25 November 2020, the new programme was adopted by the ASEAN Ministerial Meeting on Disaster Management at its 8th meeting on 27 November 2020. The Work Programme vision is to "build a region of disaster-resilient nations, mutually assisting and complementing one another, sharing a common bond in minimizing adverse effects of disasters in pursuit of safer communities and sustainable development". Its mission is to "enhance and support ASEAN's disaster risk reduction and disaster management capabilities through inter-sectoral cooperation, capacity building, scalable innovation, resource mobilization, new partnerships, and stronger coordination among ASEAN Member States".⁷

The five AADMER Work Programme priority programmes and their sub-priorities include:

- 1. Risk Assessment and Monitoring (including: risk assessment, early warning, and risk communication);
- 2. Prevention and Mitigation (including: disaster risk reduction and climate change adaptation resilient cities and human settlements, resilient economy, resilient

- infrastructure, vulnerable groups and community-based disaster risk management (CBDRM), and disaster risk governance);
- 3. Preparedness and Response (including: advance planning and diversification of instruments for regional preparedness, strengthen coordination and capacity building for effectiveness of regional response);
- 4. Resilient Recovery (pre-disaster programmes on resilient recovery and preparedness for regional recovery assistance for large-scale disasters); and
- 5. Global Leadership (knowledge management for regional resilience building and sharing of regional knowledge and experiences to demonstrate global leadership in disaster management).

The implementation process of the priority programmes and sub-priorities consists of six building blocks and drivers, which are: (i) institutionalization of AADMER; (ii) partnership strategies; (iii) resource mobilization; (iv) outreach and mainstreaming; (v) training and knowledge management systems; and (vi) information management and communication technology.

In addition, the Work Programme incorporates the main provisions of other key ASEAN agreements and documents, including ASEAN Vision 2025 on Disaster Management, ASEAN Declaration on One ASEAN One Response (OAOR), ASEAN ICT Roadmap on Disaster Management for 2025 and beyond, and other regional agreements.

The Work Programme also expressly aligns regional arrangements with the main post-2015 global agreements on DRR, climate change and sustainable development, in particular the Sendai Framework, the Paris Agreement, and the 2030 Agenda for Sustainable Development.

2.3. DRR in the National Context

2.3.1. Historical Disaster Situations and Impacts

In the past, Lao PDR has faced increasing losses from severe climate and climate-related disasters, especially floods, droughts, landslides, summer storms and cyclones, in addition to epidemics, earthquake, and large areas of the land being contaminated with UXO. From 1970 to 2010, there were 33 significant natural disasters (mostly floods and droughts) that affected nearly 9 million people and caused economic damage of more than \$400 million. Flood is the major natural disaster in Lao PDR, with the Mekong river and its tributaries the main sources of regular floods. The development of hydropower projects generates more impacts on the hydrological system of the Mekong River with discharge of water from the dams. Without proper water management, the flood risk from such projects will increase.

Lao PDR has experienced a number of major flood disasters, including the floods caused by Typhoon Ketsana in 2009 and Typhoon Haima-Nokten in 2011, which caused damage of US\$ 248 million. There was also a significant flood in 2013 that caused damage of more than US\$ 270 million. The most notable floods were those caused by Typhoon Son-Tinh and the collapse of the Xe Pian-Xenam Noi Dam in Attapeu Province in 2018, and Typhoon Bebinca and severe floods in 2019, all of which had a significant impact on socio-economic development. The estimated total flood damage in 2018 was LAK 3,166.9 billion (approximately US\$ 371 million) or about 2.1 percent of GDP. The impacts of the Covid-19 virus outbreak have also forced the Government to revise and adjust its 2020 economic growth targeted from 6.5 percent to 3.3 to 3.6 percent, based on macroeconomic projections.

Figure 1 shows that floods accounted for 72% of those affected by disasters, during 1990-2018. Storms, droughts, and epidemics affected 10 percent, 9 percent, and 8 percent of the population respectively.

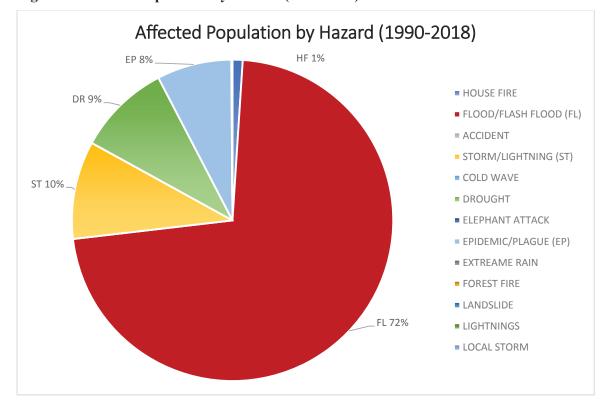


Figure 1: Affected Population by Hazard (1990-2018)

Source: MLSW, Government of Lao PDR, 2020, using data from Lao-Di (1990-2018)

In 2018 floods affected each economic and social sector differently, with the agriculture and forestry sector, including crops, livestock, fisheries, forestry and irrigation, facing severe losses, up to 57 percent of the total losses. The transport sector, including roads, bridges, transport services and government buildings, accounted for up to 65.5 percent of the total damage. Overall, the state sector faced severe effects in terms of loss and damage, especially in the areas of production and infrastructure. The damage to the private sector is due to declining incomes of farmers, individual people engaged in small and medium enterprises, and those who provide services in the cultural and tourism sector. Smallholder farmers, workers and owners of small and medium enterprises were directly burdened by the disasters, as shown in Table 2.

Figure 2 summarizes the major hazards according to their impacts over the period according to multiple criteria. This indicates that floods are the highest risk in all criteria for assessing disaster losses, including impacts on the population (people affected, deaths, injuries), houses (destroyed or damaged) and overall economic loss. Epidemics significantly impact population deaths and injuries. Storms affect large numbers of people and cause significant damage and substantial destruction of houses, which also causes significant economic loss.

Table 2: Economical Damage and Losses by Floods in 2018

Sector	Damage)billion	Loss)billion	Total)billion
	LAK(LAK(LAK(
Social sector:			
Housing and settlement	21.12	0.57	21.69
Education	18.73	1.68	20.41
Health and Nutrition	8.58	3.32	11.89
Culture	10.11	0.25	10.36
Production sector:			
Agriculture: Crops, Livestock, Forestry, Irrigation	139.80	1,087.60	1,227.30
Industry and Commerce	0.80	2.99	3.78
Tourism	21.87	9.59	31.46
Infrastructure sector:			
Transport	822.02	785.80	1,607.82
Electricity	42.20	3.20	45.40
Water and sanitation	50.96	19.02	69.98
Waterway	116.90		116.90
Total)billion LAK(1,253	1,914.02	3,166.99
Total) million USD(147	224.5	371.5

Source: PDNA Report 2018

Figure 2: Major hazards of Lao PDR, identified in terms of Multiple Damage and Loss Indicators (1990-2018)

Hazards	Death	Injured Population	Affected Population	Destroyed Houses	Damaged Houses	Economic Loss
Flood						
Drought						
Storm						
Epidemic						
House Fire						
Accidents						

Key: 1 Red = high impact (> 30%). 2 Brown = Moderate impact (10-30%). 3. Gold = Low impact (5-10%). 4 Blue = Very low impact (1-5%). White = Zero impacts.

3

4

Source: MLSW, Government of Lao PDR, 2020, using data from Lao-Di (1990-2018)

2.3.2. Related Laws and Regulations

The DM Law 2019 sets out disaster management principles and measures to make implementation efficient, effective and modern, ensuring information is provided quickly and clearly, and aiming at surveillance, reduction of disaster impacts on health, life, property of the state, communities and people, the environment and infrastructure, including recovery, restoration and rebuilding after a disaster. It can be linked to regional and international cooperation, contributions to green and sustainable socio-economic development and national security. The Government policy considers the importance of disaster management by formulating the strategy, measures, action plans, programs/projects, education, awareness raising, staff allocation, information, budget, equipment, vehicles, and mobilizing assistance to ensure peaceful, safe, efficient and effective work and a reduction of risks to life, health, property, rights and legitimate interests of citizens. The DM Law identifies three main tasks as follows:

- Disaster prevention tasks aim to prevent and mitigate disaster risks, such as data collection and inventory of risk areas, risk zoning, risk mapping, risk information system development, access and use of information, risk assessment and mitigation, disaster preparedness and response, early warning, and announcement of evacuation;
- 2) Disaster management tasks aim to limit the disasters that are occurring so that they won't cause serious harm or significant damage to health, life, property of the state, community and people, which needs actions such as ensuring safety, emergency assistance, search and rescue, initial impact and need assessments, repairing essential infrastructure, declaration of a disaster area, and cancellation of the declared disaster area; and
- 3) Post-disaster rehabilitation tasks are aimed at rehabilitation of livelihoods of disaster victims, restoration and rebuilding the infrastructure that was affected and/or damaged by a disaster to the same standard or better than before, requiring actions such PDNA, post-disaster recovery planning, implementing the post-disaster recovery, and monitoring and evaluating the recovery.

The Lao Red Cross Law in 2017 sets out the goal of providing first aid to those affected by disasters, poor, destitute, disadvantaged, orphans, disabled and those living in remote areas. Emergency rescue is the emergency assistance to rescue victims from natural or man-made disasters such as accidents on roads, air, water, floods, fires, catastrophic incidents, landslides, earthquakes, and epidemic.

The amendment to the Law on Water and Water Resources in 2017 defines the principles, regulation and measures on management, administration, protection, development, use of water and water resources, prevention of damages from water, restoration of impacted areas to ensure the quality, quantity and sustainability of water resources, aimed at meeting the needs of people's livelihoods in agricultural production, industry and services. It ensures the protection of the natural and social environment, green and sustainable development, and national security, is linked to regional and international cooperation, and contributes to socio-economic development and protection. In addition, it identifies emergency response measures in case of problems caused by a dam, which the project developer or operator must immediately report to the Natural Resources and Environment sector, the concerned offices and local government in order to respond to the urgent situation, such as warning, assistance and evacuation. If the emergency event has a serious impact, the Government, through the Prime Minister, will declare a state of emergency and take remedial measures and recovery throughout the country.

The Law on Meteorology and Hydrology No. 36/NA sets out principles, regulation and measures to manage and monitor meteorology and hydrology activities to ensure the development, modernization, efficient and effective services, aimed at surveillance, reduction of the natural disaster impacts on life and property of the state, communities and individuals, ensuring the provision of information quickly and precisely, is linked with regional and international cooperation, and contributes to green and sustainable socio-economic development and national security.

The Climate Change Decree identifies measures on climate change adaption for people, animals, plants, ecosystems, infrastructure, urban planning, etc. to ensure they are resilient to climate change and to minimize the impacts by implementing suitable measures to reduce vulnerability, risk and potential damage.

The Decree on Social Welfare sets out principles, regulations and measures for implementing social welfare policies for disaster victims and other disadvantaged people in order to ensure they receive assistances and services in an efficient, effective, fair and comprehensive manner.

2.3.3. National Socio-Economic Development Plans (NSEDP)

1). 8-th Five-Year National Socio-Economic Development Plan (2016-2020):

The Government has implemented resolutions of the 10th Party Congress, which aimed to lead the country to become a middle-income country, to integrate with regional and international cooperation, and to build the society with fairness and solidarity that allows all people to access quality social services. In order to achieve the goal, the NSEDP sets out the direction to ensure green and sustainable development, which uses economic development as the center for country development, ensuring consistency and harmony between the development of the economy, social-cultural and environmental protection, as well as responding to natural disasters in a timely manner and ensuring comprehensive rural development in close connection with poverty alleviation of the people: the "Three Build Policy". The objectives and targets related to DRR were also identified, with a focus on effective preparedness for natural disasters and climate change, as well as restoration of disaster damage to build back better. The tasks and key areas are as follows:

- The key areas related to DRR include to: establish and improve station networks and warning systems in priority river basins; improve earthquake warning stations; develop an effective and efficient natural disaster management and prevention plan (warning, response, emergency assistance, evacuation of people and property, rehabilitation system) throughout the country; establish a disaster prevention and control system to ensure the safety of people in a timely manner throughout the country; establish mechanisms and capacity building for disaster impact reduction, emergency response to natural disasters in the areas of land use change and forestry, agriculture, energy, industry and environment, including integration of climate change adaptation into the priority areas (agriculture and forestry, water and health); establish a disaster prevention fund as an important financial mechanism for coping with impacts; studying climate change and disaster-prone areas, promoting research and applying new innovations; develop national and local DRR and preparedness plans; set up a National Disaster Emergency Coordination and Command Center and an ICT-Disaster Statistics System.
- The key areas related to policies and legislation include: develop NSDRR and programs; implement disaster response policies, such as the protection of wetlands and forests in steep slope areas in order to reduce the risk to communities and unpredictable impact of natural disasters; develop a disaster law; develop a Decree on the National Disaster Prevention and Control Fund; develop a guideline on integrating/mainstreaming the disaster impact

mitigation activities into NSEDPs, strategies, programs and plans of concerned sectors, especially in agriculture and forestry, water, and health sector.

- 2). 9th Five-Year National Socio-Economic Development Plan for 2021-2025 identifies a goal and targets on disaster management by focusing on strengthening prevention, control and post-disaster recovery as follows:
- Systematically integrate adaptation to climate change and mitigation of the impacts of climate change and natural disasters into relevant sector and local development plans; develop SOPs on early warning for meteorological and hydrological hazards; implement management plans, prevention measures and mitigation of the effects of climate change and natural disasters effectively and efficiently (warning, prevention, and emergency assistance system); build forecasting capacity on floods, droughts and earthquakes in high-risk areas throughout the country; continue to improve and expand the meteorological and hydrological station network throughout the country; improve and expand the National Early Warning Center as well as the network for receiving and transmitting disaster information, forecasting and early warning effectively; improve the quality of reporting, warning of extreme temperature, weather, earthquakes and water levels effectively.
- Enhance the prevention, control and recovery of natural and man-made disasters by strengthening the capacity of the Disaster Management Committees at both central and local levels in DRR and preparedness; promote the establishment and capacity building on emergency reserves for national, provincial, district and village level in order to provide timely and effective relief to disaster victims; and at the same time, strengthen the coordination between central government agencies and local authorities in addressing damage and loss, provide effective assistance to those affected by a natural disaster, and promote participation of all sectors of society, as well as both domestic and international organizations.

2.3.4. Sectoral Development Plans Related to Disaster Management

The National Social Protection Strategy sets out the goal for developing and strengthening the social welfare system to be strong and effective in providing relief services to disaster victims.

The 5th Five-Year Labor and Social Welfare Development Plan from 2021 to 2025 outlines the goal to strengthen the prevention, control and post-disaster recovery to be strong and effective, focusing on disaster prevention, control and post-disaster recovery and rehabilitation through capacity building on DRR and disaster preparedness for Disaster Management Committees in both central and local level; coordination between government agencies and local government in addressing disaster losses effectively; promote all sectors in society, including both domestic and international organizations, for disaster prevention, control and recovery.

The draft National Program for Contributing to Climate Change Mitigation (December 2020) identifies key areas for climate change adaptation that focus on strengthening resilience to climate change to reduce damage and loss from disasters, such as in agriculture and forestry, water resources, transport and urban planning, health, and energy sectors.

2.3.5. Achievements in Disaster Management for Lao PDR

In the recent past, Lao PDR has experienced more natural disasters, more impacts and losses, so the Government has focused on strengthening disaster prevention, preparedness and mitigation of the effects of disasters, as well as post-disaster recovery. It has focused on developing and improving legislation for disaster impact management and mitigation, such as DM Law No. 71/NA, the Law on Meteorology and Hydrology No. 36/NA, the Decree on

Climate Change No. 321/GOL, the Decree on Disaster Management Fund No. 631/GOL, the Decree on Organisation and Roles of Disaster Management Committee No. 239/PM, the Draft NSDRR, and the National Action Plan on Climate Change Adaptation.

Disaster management and climate change were mainstreamed into the NSEDP and concerned sectoral development plans under the framework of Sustainable Development and Poverty Alleviation, for example: in public works and transport and agriculture and forestry sector, the annual drought and flood prevention action plan was prepared, as well as a plan to deal with pest outbreaks.

The disaster management mechanism has also been improved and strengthened by improving and establishing Disaster Management Committees in central, provincial, district and village level. Awareness-raising activities on disaster risks and impacts as well as appropriate prevention and disaster loss reduction measures for the community and society were also widely implemented. Disaster preparedness plans were developed and updated annually, as well as disaster response exercises were implemented at the national, provincial, district and village levels. Disaster impact assessment, emergency needs assessment and post disaster recovery assessment tools were developed for concerned sectors, with capacity building for application of the tool to responsible staff in both central and local levels.

Weather forecasting and early warning were also developed and strengthened through modernizing weather forecast methods, mechanisms and reporting, establishing the National Water Resources Information Center, upgrading and constructing 163 meteorological and hydrological stations, setting up the National Earthquake Information Center and building 15 new earthquake monitoring stations across the country and also upgrading 2 stations. A community-based alert system was developed and improved by launching a pilot project to use mobile alert messaging tools through Lao Telecom, Lao Telecommunications Enterprise, UNITEL and Beeline network; messages were also further broadcast by using sound systems and loudspeakers (village loudspeakers).

Logistics to support emergency disasters was enhanced by improving the MLSW's warehouse in Km 17, equipped with materials and systematic placement of supplied and consumption goods. The responsible social welfare warehouse management staff in both central and provincial level received trainings on logistics and management of supplied and consumption goods, providing the training and handing over 8 mobile warehouses (1 unit per province) for using for emergency response to Oudomxay, Xayabouly, Bokeo, Luangnamtha, Khammouane, Savannakhet, Sekong and Attapeu provinces.

Climate resilient crop production was promoted to improve food security and nutrition in communities with high disaster risks in 6 provinces, Phongsaly, Luangnamtha, Oudomxay, Houaphanh, Savannakhet and Salavan provinces, by working with farmers to improve their production system through the use of climate and weather information, improved appropriate production techniques, enhancing value chain, and enabling them better access to markets. ⁸

During the emergency assistance and response, the Government had advised and assigned the Disaster Management Committees in each level and concerned sectors in both central and local levels to implement the assistance effectively and efficiently, ensuring that all disaster affected people receive assistance quickly, timely, and with safe life during emergencies. Many central party-state leaders also visited to motivate the affected people, to encourage and direct the responsible parties to provide assistances in the disaster affected provinces.

The Government had issued national disaster declaration areas and welcomed international supports through the Central Disaster Management Committee. In the aftermath of the national disaster, the Government had coordinated with development partners and international

organizations to ensure immediate humanitarian assistance, including search-and-rescue, distribution of relief supplies, use of medical and emergency assistance supplies, construction of shelters and temporary evacuation centre, victim assistance and evacuation activities. ⁹

Post-disaster rehabilitation: The Government had allocated many billions LAK of the state budget to use for post-disaster rehabilitation, by allocating to concerned departments at the central and local levels, such as public works and transport, agriculture and forestry, health, education and sports. Concerned sectors in central and local level (provincial) also seek support from international partners to implement emergency aid and recovery programs after a disaster, including strengthening disaster and climate change management projects, so the impacted people received assistance and recovered to their normal living conditions. Their houses were repaired or newly constructed, basic infrastructure such as roads and bridges, irrigation systems, public buildings and facilities, health services, clean water, electricity, etc. had been restored.

Important outstanding disaster recovery work was seen in Sanamxay district Attapeu province, which had been successfully implemented. Success such as social welfare works, impact assessments and compensation, restoration of basic infrastructure and job allocations, especially land clearing and allocation, promoting and setting up production groups, construction of irrigation, building permanent houses, electricity work, construction of a hospital, health centers, etc. The total value of the compensation for the damage and post disaster recovery was LAK 828,516 billion.

International Cooperation: Under the leadership of the Ministry of Investment and Planning, the Government has established a Round Table process, which brings together governments and national development agencies, United Nations agencies, civil society organizations and the private sector to ensure funds, time and knowledge have the maximum impact in development across the country. It consists of 10 Sector Working Groups to coordinate actions among various stakeholders by theme, covering: health, education, governance, infrastructure, macroeconomics, trade and the private sector, mine action, illicit drug control, agriculture and rural development, and natural resource management and the environment. A number of Sub-Sector Working Groups provide additional platforms for coordination around specific priorities within these sectors. Disasters, Climate Change & Environment is one of the Natural Resources & Environment Sub-Sector Working Groups, chaired by Department of Climate Change, Ministry of Natural Resources and Environment, and Co-Chaired by UNDP.¹⁰

Budget and Disaster Risk Financing: The Government has the main financial tools for Disaster Risk Management, including 1). State Reserve Fund (SRF) (State Budget Department, Ministry of Finance), 2). National Contingency Fund (State Budget Department, MOF), 3). Social Welfare and Emergency Fund (Department of Social Welfare, MLSW), 4). Road Maintenance Fund (RMF) (Ministry of Public Work and Transport), and 5). Provincial Emergency Funds (Provinces). In 2016 the total resources allocated to these various funds include approximately LAK 800.6 billion for FY2014/15 (LAK 300 billion to the SRD, LAK 100 billion to the National Contingency Fund, LAK 0.5 billion to the Social Welfare Fund, LAK 400 billion to the Road Maintenance Fund and LAK 0.1 billion to the Provincial Emergency Funds.¹¹

In recent years, the Government has participated in a pilot project on the first regional catastrophe risk pool under the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). The proposed catastrophe risk pool is designed as a reinsurance-backed disaster liquidity facility, based on an upfront premium and providing quick payouts when eligible disaster events occur. Lao PDR had purchased the disaster insurance under the SEADRIF project in the value of US \$5 million in the three-year term beginning from 2021, including two components: Parametric Insurance with the value of US\$ 3.5 million and Soft Trigger with the value of US\$

1.5 million. This project will be an important financial potential for Lao PDR to provide emergency assistance in a disaster event.

2.3.6. Key Challenges and Lessons learned

Although the disaster management in the past were positive progress and success, there were also many problems, challenges and lessons to be addressed in the future.

2.3.6.1. Key Problems and Challenges

- Although the Government has made great efforts to provide emergency assistance and post-disaster recovery, due to the limited budget and lack of available disaster funds, the implementation of such work was delayed and unable to meet the actual needs, such as the implementation of social welfare policy and relief, social rehabilitation, infrastructure and production, etc. For example, during 2018 and 2019, many provinces were affected by floods, which caused damage to housing and production areas, damage to socio-economic infrastructure such as roads, bridges, irrigation, schools, electricity, etc., which need the budgets for both emergency response and post-disaster recovery;
- The structural protection measures were not able to be implement to the extent needed. for example, the investment in construction of flood protection banks, riverbank landslide protection, and roadside landslide protection;
- The information and early warning transmission system to the communities in some areas is still limited, people receive the information late or cannot access the information quickly and in time, especially in remote rural areas, due to lacking and outdated essential facilities and equipment;
- Disaster risk zoning identification and mapping, especially in high risk provinces, districts, and villages is still not available. This resulted in the development of disaster risk prevention and mitigation plans facing difficulty, due to the lack of data/information for sector development projects to avoid disaster damages and losses, including to avoid generating new problems, for example: the flood disaster caused by Xe Pian Xe Namnoi dam development project;
- The established local Disaster Management Committees in most provinces, districts and villages still have limited knowledge of disaster management and disaster risk mitigation, which leads to lack of initiatives in planning to prevent and respond to emergencies in advance, and this creates difficulty in emergency response during a disaster event;
- Emergency response teams have limited capacity in some areas to provide assistance during an emergency event, including lacking suitable and appropriate tools, vehicles, and equipment in accordance with the situation and condition of the actual disaster, for example: rescue tools and equipment, rescue boats, equipment and tools for cleaning and keeping of corpses;
- Large and medium warehouses to store relief materials and equipment for response during a large disaster emergency are still limited (only available in the central level), while they are not available in local, province, and district levels. Transportation systems and logistics management are not systematic, which leads to difficulty receiving large relief supply and consumption goods, some of which were expired, low quality, etc. for example: during the flood event in Attapeu province in 2018, the facilities such as offices and meeting halls in the province and districts were used to store the relief aid;

- Zoning for evacuation centers, temporary shelters or emergency shelters are not yet identified. This resulted in disaster impacted people not receiving suitable temporary shelter or they were not safe, for example: during the flood disaster event in Sanamxay district in 2018, many thousands of disaster impacted people had moved into the shelters that were very crowded, humid, limited toilet and bathroom facilities and insufficient clean water, some had diarrhea and flu, the disadvantage groups such as children, new mothers, pregnant women, people with physical disability, mental illness and depression, etc. suffered the most;
- Data collection and initial need assessments are not yet systematic, unified and centralized. Different government sectors and international aid organizations implement their own aspects. The impact and assessment for recovery after a disaster must be unified;
- Most of the disaster risk reduction works focus on post-disaster emergency response, which still does not yet focus on investing in resilient infrastructure of critical infrastructure due to insufficient budget;
- Basic sector data/information for emergency response is limited and the data/information recording is not systematic; and capacity building on supporting implementation of DRR activities at the national, provincial, and district levels is also limited.

2.3.6.2. Lessons learned

- Increase the investment in disaster prevention, emergency response preparedness and DRR, as well as post-disaster recovery that ensures safety and resilience to future disasters;
- Mainstream DRR into priority tasks in socio-economic development plans in each period, strategies, programs and projects of government at all levels, institutions, business sector and local communities under the frameworks of sustainable development, socio-economic development and poverty reduction;
- Strengthen information and early warning transmission systems to ensure that people have access to and receive early warning information quickly and in time, especially in remote rural areas, as well as using modern equipment to facilitate the system;
- Conduct studies on risk identification and disaster risk mapping in high risk areas at provincial, district and village levels, to be used in the development of disaster prevention and mitigation plans and to provide information to concerned sectors for project developments to avoid disaster losses and creating of new disaster problems;
- Build the capacity of the Disaster Management Committees from the central to local level, including provincial, district and village levels, in order to enhance their knowledge on DM and DRR, and enable them to initiate disaster prevention plans and prepare for emergency response in advance;
- Strengthen the emergency response teams, for example, search-and-rescue teams, medical assistance teams, emergency shelter assistance, as well as procurement and provision of adequate and appropriate vehicles, materials and equipment;
- Setup and improve the warehouse system for emergency equipment at the central, provincial and district levels that have high disaster risk, as well as strengthen the logistics system to be ready for effective implementation during a disaster event;
- Identify zoning for evacuation centers, temporary shelters or emergency shelters to accommodate the disaster victims who will be evacuated during emergencies, and to ensure

that they have all the facilities, such as safety in temporary shelters, sanitation facilities, clean water, etc.;

- Strengthen the coordination mechanism for emergency assistance and post-disaster recovery, including impact and needs assessments for emergency assistance and disaster recovery in a systematic, unified and centralized manner;
- All sectors must increase their ownership in collection and creation of disaster risk data/information related to their sector in a systematic manner and share with all parties, including the Disaster Management Committee Secretariat to record in a national disaster integration database;
- Enhance climate change adaptation in different sectors, such as agriculture, cropping, etc. to build resilience to the risks from climate change;
- Both public and private investment projects should consider social and environmental impacts to ensure that they won't create a new risk and adversely impact the people in the project development areas;
- Raise awareness and build understanding of the public, society, private sector, as well as other entrepreneurs on disaster impacts and the need to change the concept of disaster risk and impact prevention, mitigation, and disaster preparedness to increase their contribution and participation to disaster risk reduction, as well as responsibility for their activities;
- Prevention, control and post-disaster recovery measures for the periods during, and after a disaster, should be clearly identified;
- Increase cooperation and seek assistance from international partners to enhance capacity, develop and transfer technology, support the implementation of disaster prevention, preparedness response, and post-disaster recovery.

III. National Strategy for Disaster Risk Reduction

3.1. Vision

By 2030 Lao PDR will be strong in disaster management, able to reduce the damage and loss from disasters to the society, economy and environment, and able to integrate DRR in National Socio-Economic Development Plans and sectoral plans in each period.

3.2. Principles

The NSDRR will be implemented in compliance with policies, the constitution, laws, strategies, NSEDPs, national defense and security, and international treaties and agreements, to cover all types of disasters, to ensure equality, justice, transparency, disclosure and accountability, to ensure the participation of all social sectors and coordination between ministries, agencies, organizations and local authorities.

3.3. Overall Goal

By 2030 the Disaster Management and Risk Reduction System will be strengthened and more effectively developed, with the goal of strengthening disaster prevention, control and post-disaster recovery.

The NSDRR sets out the strategies, objectives and priority focus areas. It is fundamental for the implementation of the Disaster Management Law, the development and implementation of national disaster risk reduction plans, and also for integrating disaster risk reduction into the development plans over the next decade from 2021 to 2030, in line with the Sendai Framework.

3.4. Strategies

3.4.1. Strategy 1: Develop and strengthen the disaster prevention system, disaster risk reduction, disaster preparedness and response.

Objective 1: To disseminate and implement the Disaster Management Law and establish a disaster risk reduction system at the central and local levels, coordinate disaster management, and regional and international cooperation.

Focus areas:

- 1.1 Develop and implement 5-Year National DRR Action Plan 2021-2025;
- 1.2 Develop Decrees related to the DM Law, and undertake dissemination, awareness raising, implementation and enforcement of the related laws and regulation;
- 1.3 Develop Standard Operating Procedures (SOPs) for coordination of preparedness, early warning, emergency response and early recovery according to the DM Law;
- 1.4 Develop disaster preparedness and response plans at both central and local levels, and conduct regular planning exercises to ensure the effectiveness and efficiency of emergency response; and
- 1.5 Prepare Annual Reports and the Mid-Term Review of the NSDRR

Objective 2: To integrate DRR into development planning and implementation by mainstreaming DRR into sector plans and the National Socio-Economic Development Plans (NSEDP).

Focus areas:

- 2.1 Mainstream DRR into the NSEDP and sector development plans in each period; and
- 2.2 Build sectoral capacity on mainstreaming DRR.

Objective 3: To progressively develop and implement Provincial DRR Strategies and Plans, and Local DRR plans in high risk areas, alongside the provision of capacity building and resources for implementation.

Focus areas:

- 3.1 Develop and implement Provincial DRR Strategies and Plans, and Local DRR Plans in selected high risk provinces, districts and/or villages; and
- 3.2 Monitor and evaluate the provincial and local DRR strategies and plans.

Objective 4: To develop capacity, undertake risk mapping and assessments, manage and share disaster risk data and information efficiently within and between ministries and agencies, while also meeting international reporting requirements.

Focus areas:

- 4.1 Identify risk areas and conduct risk mapping and risk assessments in high risk areas;
- 4.2 Strengthen the Lao disaster information system (Lao-Di);
- 4.3 Develop a risk data/information system, access and use the information/data; and
- 4.4 Undertake institutional capacity and resilience assessments.

Objective 5: To build and maintain infrastructure that is more resilient to disasters and understand the sources of vulnerability in disasters, in order to increase resilience of the identified vulnerable groups and communities: people living with disabilities, children, the elderly, women who are pregnant or nursing mothers, women and girls at risk of gender-based violence, members of remote rural communities and people living in poverty.

- 5.1 Support to enhance disaster resilience of infrastructure such as roads, bridges, water supply systems, irrigation, hydropower projects, schools, hospitals, government buildings, cultural and heritage sites, etc.;
- 5.2 Collect and analyze quantitative data and conduct qualitative research on vulnerable groups and ways to increase their resilience;
- 5.3 Reduce risk, protect and support families and organizations of people living with disabilities;
- 5.4 Prevent violence against women and girls in disasters, for prevention and response to sexual and gender-based violence in a disaster; and
- 5.5 Set up and implement cross-sectoral mechanisms and processes for resilient infrastructure.

Objective 6: To reduce loss of life, property and livelihoods from disasters, such as floods, storms, drought, and landslides through prevention actions, continued improvement to early warning systems, and to support community preparedness for rapid evacuation or other coping strategies to avoid disaster losses.

Focus areas:

- 6.1 Review the infrastructure, equipment and personnel capacity for Early Warning of Weather Hazards and disasters; and
- 6.2 Develop Early Warning Systems (EWS) that can reach all the people with warning messages.

3.4.2. Strategy 2: Strengthen disaster response and emergency assistance.

Objective 7: To expand national capacity for rapid and effective humanitarian response to disasters to reduce immediate suffering and loss of life as well as secondary health and welfare impacts.

Focus areas:

- 7.1 Enhance technical capacity for early response through investment in equipment, vehicles, communications technology and capacity building for Government first responders;
- 7.2 Build national personnel capacity on rapid impact assessments and needs assessments after a disaster; and
- 7.3 Enhance the availability of food by establishing food and emergency rice stocks.

3.4.3. Strategy 3: Develop and strengthen post-disaster recovery.

Objective 8: To ensure that the socio-economic needs of affected communities, as well as physical reconstruction, are addressed in ways that increase future resilience in accordance with the Sendai Framework commitment to "Build back better".

Focus areas:

- 8.1 Enhance post-disaster recovery planning based on post-disaster need assessments (PDNAs);
- 8.2 Review the institutional mechanism for recovery and reconstruction following major national disasters; and
- 8.3 Plan and implement recovery and reconstruction mechanism.

3.4.4. Strategy 4: Strengthen sectoral coordination on disaster risk reduction, emergency response and recovery.

Objective 9: To clarify roles and responsibilities of the sectors in DRR, preparedness and response to different hazard types, and recovery in accordance with the DM Law and sector mandates.

- 9.1 Develop Standard Operating Procedures for coordination and enhance the capacity for sectoral DRR and emergency response planning;
- 9.2 Health emergencies Preparedness and response coordination on pandemics, epidemics and health consequences of different disasters;
- 9.3 Hydropower dam operations and accidents Early warning and emergency response coordination;
- 9.4 Strengthen watershed and water resource management Cross-sectoral DRR coordination:
- 9.5 Environmental crises, including pollution events, industrial accidents, and wildfires Cross-sectoral coordination in DRR, preparedness and emergency response; and
- 9.6 Predictions or occurrence of agricultural pests, plant or animal disease outbreaks and drought - Cross-sectoral coordination in DRR, preparedness and emergency response.

3.4.5. Strategy 5: Enhance national and local DRR education and training

Objective 10: To increase DRR capacity for civil servants and community leaders in a sustainable way by using training and education resources within Lao PDR.

Focus areas:

- 10.1 Develop a Framework for National Capacity Building on DRR;
- 10.2 Support vocational and higher education sectors to provide accredited national DRR and disaster management education;
- 10.3 Build capacity to educate local authorities and communities on DRR continuously;
- 10.4 Enhance the capacity of Disaster Management Committees; and
- 10.5 Enhance the knowledge and capacity of local and community leaders on DRR continuously.

3.4.6. Strategy 6: Promote participation and stakeholder engagement and inclusion.

Objective 11: To develop new mechanisms for engagement of non-governmental stakeholders in DRR, to support a whole-of-society approach in accordance with the Sendai Framework, including the private sector, especially micro, small and medium enterprises (MSMEs), organizations that support women's socio-economic resilience and those that represent the needs of vulnerable groups.

- 11.1 Set up an Advisory Group on Private Sector Resilience (AG-PSR) to build the capacity for business continuity management against climate and disaster risk, especially for micro, small and medium enterprises (MSMEs) in agriculture and tourism, including rural areas and female leaders; and
- 11.2 Set up an Advisory Group on Resilience of Women and Vulnerable Populations (AG-RWVP).

3.4.7. Strategy 7. Budget and disaster risk financing

Objective 12: To ensure sufficient State budget for regular DRR and disaster management activities within MLSW and other concerned ministries, to make readily available funds for quick response from central to local level, and to enhance access to international support for DRR, disaster risk financing and insurance, and recovery and reconstruction after a major disaster.

- 12.1 State budget allocations for DRR and disaster management and potential sources of international funding;
- 12.2 Insurance and disaster risk financing for State and private assets and enterprises; and
- 12.3 Strengthen Disaster Management Funds for disaster management application at both central and local levels.

VI. Implementation Measures

In order to implement this National Strategy on Disaster Risk Reduction successfully, the following key measures will be the focus.

4.1. Multi-Sector Coordination and Cooperation Mechanism

As stated by the DM Law, the Central Disaster Management Committee (CDMC) is responsible for the general implementation of DRR and disaster management, coordination of the various implementing bodies, coordination with development partners, and assessment of the overall situation of DRR in the country. The NSDRR designates the CDMC as the responsible body for implementation, monitoring and evaluation of the NSDRR throughout the country.

The CDMC is a non-standing statutory body established under Part VII of the DM Law and is constituted by the Deputy Prime Minister as the Chairperson, the Minister of MLSW as the Deputy Chairperson and Standing Person, Deputy Ministers of MOD and MOF as Deputy Chairpersons, the Director of the Office of the Prime Minister and Deputy Ministers of other relevant ministries such as MOH, MAF, MPWT, MOES, MICT, and MONRE as committee members. The Government may assign additional members based on the disasters that occur.

Under the CDMC mandate it has responsibilities to the Government on disaster risk reduction and disaster management in the country. The central coordination body of the CDMC is the Secretariat, located in the Department of Social Welfare, Ministry of Labour and Social Welfare. The Secretariat has the roles to formulate policies and plans for CDMC approval, implement the elements within its responsibilities and coordinate with other departments and sectors, local level committees, development partners, and other roles.

The DM Law also requires establishment of local level committees. The Provincial Disaster Management Committee (PDMC) consists of Provincial Vice Governor as chairperson, Provincial Department of Labour and Social Welfare as Deputy Chairperson and Standing Person, and other concerned provincial departments as members. The District Disaster Management Committee (DDMC) is chaired by the District Vice Governor, with the Office of Labour and Social Welfare as Deputy Chairperson and Standing Person, and constituted of members from concerned district offices. The Village Disaster Management Committee (VDMC) is chaired by the Head or Deputy Head of the Village, and consists of deputy heads of the village units, including the local representatives of the mass organizations for the elderly, youth and women.

The CDMC has the Department of Social Welfare, MLSW as the central coordination body for implementation of the NSDRR and detailed planning of implementation plans under each objective of the NSDRR.

A management and information system (MIS) is also being established to facilitate the work of the CDMC and its Secretariat in planning, coordinating and supervising the implementation of the NSDRR. The MIS is hosted by the Ministry of Labour and Social Welfare and will centralize all the information produced during the implementation of the NSDRR and other information relevant to disaster management and disaster risk reduction in Lao PDR.

The concerned sectors will implement this strategy by incorporating it into their development plans, programs and projects for implementation.

4.2. Financial Budget and Resource Mobilization to Support the Implementation

The NSDRR is expected to use government funding and resources mobilized from development partners and international organizations for effective implementation of its objectives and the activities arising in the five-year action plans to be formulated under the NSDRR.

The NSDRR will benefit from its integration with the NSEDP planning and budgeting process to allocate budget to the various implementing ministries, and to continue to mobilize official development aid grants and loans utilizing the roundtable meeting channel. This includes plans to access low-interest and long-term credit from international organizations for the purposes of DRR and disaster risk financing.

The NSDRR resource mobilization and financial sustainability strategy also includes seeking private sector investment, using resources at maximum efficiency and ensuring transparency.

4.3. Cooperation with Development Partners

Development partners are of central importance to the success of the NSDRR. Partnerships are critical during the development of the action plans and their implementation, and in the evaluation phases. It is expected that development partners will add value to the NSDRR implementation in multiple areas, including technical assistance, capacity building, budgetary support, monitoring of its implementation and evaluation of the outcomes and outputs. Relevant sector technical teams will be responsible for coordinating with development partners in accordance with their mandates.

The CDMC will use the Disasters, Climate Change & Environment sub-sector working group under the Natural Resource and Environmental and Sector Working Group as a coordination mechanism with development partners to mobilize funds and resources to implement DRR activities. This sub-sector working group will support effective implementation mechanisms.

Cooperation with global and regional organizations will be strengthened to ensure the country meets the conditions of the Sendai Framework and the AADMER Agreement and Work Programme.

Cooperation with ASEAN countries will be strengthened. Priority will be given to sharing lessons with neighboring countries, in line with the AADMER.

Cooperation initiatives with development partners will be mapped to better utilize the relevant data gathered by development partners that are supporting and working on DRR for each of the target vulnerable groups, and to provide tailored support to the groups, such as women, children, poor households, persons with disabilities, and elderly persons.

4.4. Awareness Raising and Capacity Building

The CDMC will be the focal point for ensuring a good understanding and effective implementation of DRR interventions in all relevant sectors and levels of government, at central, provincial, district and village levels.

While the planning capacity of the central level of the Government will benefit from a more strategic understanding of DRR, local levels will increase their capacity to implement interventions using approaches more specific to the tasks they are required to perform.

Under the capacity building Objective 10 of the NSDRR, the CDMC Secretariat and members of concerned line ministries will be supported to increase their technical capacity and understanding of DRR. To achieve this, the CDMC will coordinate access to training, technical meetings with development partners, study tours to ASEAN countries, and dissemination of lessons learned. Capacity-building activities will be expanded to reach the National University of Laos and the Lao Statistics Bureau, which will also be invited to participate in relevant consultative meetings.

Evidence-based research on how disasters affect population groups, with data disaggregated by age, sex, income level, and geographic area is critical to reaching the goals of the NSDRR successfully. Development partners and relevant research institutions will play an essential role in increasing the understanding of the causes and consequences of disasters in Lao PDR.

Awareness raising campaigns will have an important role in improving employers' and leaders' awareness of DRR, reminding them of its compulsory nature and encouraging their voluntary participation. Likewise, campaigns will be planned to improve the general public's awareness of DRR.

Awareness raising plays an important role in implementation of the NSDRR. Research studies will be produced through collaboration between research institutions and development partners to increase the understanding of DRR related issues in Lao PDR. Evidence will also be produced regarding the implementation of DRR programmes and projects in Lao PDR.

Personnel will be invited from relevant ministries, departments and offices to participate in capacity-building activities, including training and study tours to ASEAN countries, to learn the best practices in implementing DRR interventions.

Awareness campaigns utilizing mass media and social media will be developed so the general public will have a better understanding and improved awareness of disaster risks and their impacts and how to participate in reducing disaster risk.

4.5. Review, Reporting and Evaluation

UNDRR guidance on National DRR Strategies emphasizes the importance of monitoring, reporting and review, with two key elements: (1) the need to collect and report information on the strategy implementation process; and (2) the need to use indicators to monitor progress on the impacts of a national strategy. ¹² This approach is designed to provide the data and analysis needed for national decision-making and policy adjustment, with the ultimate vision and goal of effective reduction of disaster risk and disaster impacts.

This NSDRR is a high-level national strategy that sets out the national vision and goal on DRR and a series of national objectives. Implementation of these twelve Objectives will be detailed in specific action plans, in particular the MLSW-led 5-Year National DRR Action Plans during the decade 2021-2030, the DRR components of sector plans, and the DRR elements of the MPI-led 9th and 10th National Socio-Economic Development Plans during 2021-2030. The Annex to this NSDRR sets out a series of focus areas for the action plans that were identified during the development of this strategy. Each of these plans is to include specific actions, indicators of progress, and a monitoring and evaluation framework.

Reporting, monitoring and evaluation under this NSDRR has the objective of providing oversight of national progress and effectiveness in DRR and disaster management as set out in this NSDRR. This will be done through the following mechanisms:

1) NSDRR Annual Progress Reports to the Government between 2021 and 2030.

- 2) NSDRR Mid-Term Review to be completed by July 2025.
- 3) NSDRR Final Review to be completed by July 2030.

4.5.1. NSDRR Annual Progress Reports to the Government between 2021 and 2030

The NSDRR Annual Progress Reports will be short, routine information reports prepared by MLSW, with the first to be provided in the last quarter of 2021. They will provide an update on progress in the development and implementation of the action plans needed to implement the strategy objectives and identified focus areas, and an update on the data in Lao-Di. If possible they will also be translated and made available in English, to facilitate international partner engagement.

The fifth annual NSDRR Annual Progress Report for 2025 will be replaced by the mid-term review, and the final NSDRR Annual Progress Report will be replaced by the NSDRR Final Review for 2030.

4.5.2. NSDRR Mid-Term Review to be completed by July 2025

The Mid-Term Review will consider the extent to which the first set of 5-year action plans have been formulated, implemented, monitored and evaluated, including the MLSW-led 5-Year National DRR Action Plan during 2021-2025, and the extent of mainstreaming DRR into the 9th NSEDP and sector plans for 2021-2025. This will inform the development of the next 5-Year National DRR Action Plan 2026-2030, the DRR components of the 10th National Socio-Economic Development Plan 2026-2030 and sector plans until 2030.

In undertaking this review, MLSW will work closely with MPI to undertake consultations with sectors, provincial authorities, non-governmental stakeholders and international partners. The final report with findings and recommendations will be published and made available online in Lao language and, if possible, in English, to facilitate international partner engagement.

4.5.3. NSDRR Final Review to be completed by July 2030

This final review will consider the extent to which the 5-year action plans and mainstreaming DRR into the NSEDPs have been formulated, implemented, monitored and evaluated, and whether this model of a 10-year strategy supported by 5-year planning has been effective. The review will inform the development of a new 10-Year NSDRR (or similar), as well as determine the form of ongoing planning and reporting on DRR in the following decade 2031-2040. In undertaking this review, MLSW will work closely with MPI to undertake consultations with sectors, provincial authorities, non-governmental stakeholders and international partners. It will review documents and make recommendations towards a new NSDRR from 2031-2040. The final report with findings and recommendations will be published and made available online in Lao language and, if possible, in English, to facilitate future international partner engagement.

Annex

Annex: DRR Focus Areas for Government Planning in 2021-2030 under the 12 Objectives of the NSDRR

This annex consists of the DRR focus areas in the 12 objectives of the NSDRR that were identified during the consultation process. These will be included in the government plans for 2021-2030 as follows:

- (1) To be the basis for mainstreaming DRR into the 9th and 10th NSEDPs; and
- (2) To be included in the five-year National Disaster Risk Reduction Plan (NDRRP) led by the Ministry of Social Welfare, as stated in this strategy and/or to integrate into the five-year plans of sectors, according to the ministries and/or the lead agency in each focus area.

Strategy 1: Develop and strengthen the disaster prevention system, disaster risk reduction, disaster preparedness and response.

Objective 1: To disseminate and implement the Disaster Management Law and establish a disaster risk reduction system at the central and local levels, coordinate disaster management, and regional and international cooperation.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
1.1 Develop and implement 5- Year National DRR Action Plan 2021-2025	1.1.1 Develop the Labor and Social Welfare (LSW) sector 5-Year National DRR Action Plan 2021-2025, including 1)Actions to implement the 12 objectives of this NSDRR, with indicators, monitoring and evaluation mechanisms; and	MLSW / Member ministries in CDMC
	2) Ensure harmonization with other relevant national strategies and plans, including the National Social Protection Strategy 2025, the National Strategy and Action Plan on Gender Equality 2021-2025, the National Plan of Action on Nutrition 2021-2025, and the National Strategy on Climate Change when finalized.	
	1.1.2 Design and implement a monitoring and evaluation framework for the sector 5-Year National DRR Action Plans.	
	1.1.3 Develop 5-Year National DRR Action Plan 2026-2030	

1.2 Develop Decrees related to the DM Law, and undertake dissemination, awareness raising, implementation and enforcement of the related laws and	1.2.1 Develop and implement a Decree on the Disaster Management Fund to be established at Central, Provincial and District levels according to the DM Law Articles 45-47	MLSW / CDMC
	1.2.2 Develop and implement a Decree on International Cooperation in DRR and disaster management, according to DM Law Articles 8, 17, and in particular to facilitate the entry and coordination of international disaster assistance, according to DM Articles 35-38. These will draw on the IFRC IDRL Guidelines and checklist.	MLSW/CDMC and MOFA
regulation	1.2.3 MLSW to recommend and Prime Minister appoint all members of the Central, Provincial, District and Village level disaster management committees, according to the DM law, the Law on Gender Equality and the National Action Plan on Gender Equality 2021-25, which requires a minimum of 30% women in all government committees.	MLSW / CDMC LWU/ Committee for Advancement of Women and Children
	1.2.4 Undertake awareness-raising on the DM Law and the NSDRR within provincial and district level administration and village level in selected high risk communities, as part of the Framework for National Capacity Building on DRR (see Objective 10).	
1.3 Develop Standard Operating Procedures (SOPs) for coordination of preparedness, early warning, emergency response and early recovery according to the DM Law	1.3.1 Develop and implement new LSW Standard Operating Procedures (SOPS) for central to local level and cross-sector coordination of preparedness, early warning, emergency response and early recovery, to:	MLSW/ CDMC
	1) Formalize and revise existing procedures to align with the DM Law roles and responsibilities, to clarify when authority for action lies at national, provincial or district level, how and when human and financial resources are mobilized, and which types of hazards require a lead role by other sectors or agencies;	
	2) Set out in detail the roles of the Disaster Management Committees from Central to Village levels, the Sectors, and Provincial, District and Village level officials in each phase and for each type of major hazard; and	
	3) Specifically set out how to take account of the different needs of women and men, boys and girls, people with disabilities, older persons, ethnic communities, remote rural and urban communities, in preparedness, EWS, evacuations, disaster relief,	

	situations of displacement and early recovery needs for social protection, health and welfare services.	
	1.3.2 Using the list of high risk priority provinces agreed under Objective 3, and as part of the Framework for National Capacity Building on DRR under Objective 10:	MLSW, CDMC, MOND, MOPS
	1) Within the Framework for National Capacity Building, develop a programme of training and simulation exercises using the DM law, this NSDRR and the SOPs as the base; and	
	2) Seek regional cooperation on development and implementation of simulation exercises.	
	1.3.3 Within the Framework for National Capacity Building on DRR under Objective 10, implement the programme of training and simulation exercises in the first group of priority high risk provinces agreed under Objective 3.	
1.4 Develop disaster preparedness and response plans at both central and	1.4.1 Update the annual National Disaster Preparedness and Respond Plan and support the development of local Disaster Preparedness and Response Plans at provincial, district and village levels.	MLSW, CDMC, PDMC, DDMC
local levels, and conduct regular planning exercises to ensure the effectiveness and efficiency of emergency response	1.4.2 Organize exercises on Disaster Preparedness and Response at national and local levels	
1.5 Prepare Annual Reports and the Mid-	1.5.1 Provide annual reports on implementation of the NSDRR.	MLSW, CDMC
Term Review of the NSDRR	1.5.2 Undertake the Mid-term review of the NSDRR.	

Objective 2: To integrate DRR into development planning and implementation by mainstreaming DRR into sector plans and the National Socio-Economic Development Plans (NSEDP).

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
2.1 Mainstream DRR into the NSEDP and sector development plans in each period	MLSW, MPI and the sectors to identify short, medium and long-term disaster and climate-related risks and include risk reduction in sectoral action plans for the 9 th and 10 th NSEDPs and the sector 5-year planning frameworks.	MLSW, CDMC, MPI
2.2 Build sectoral capacity on mainstreaming DRR	As part of the capacity building plan under Objective 10, develop and implement a programme for DRR capacity building within all sectors, with priority training and support for those with responsibility for implementing the NSDRR in the sectors.	MLSW, CDMC, MPI

Objective 3: To progressively develop and implement Provincial DRR Strategies and Plans, and Local DRR plans in high risk areas, alongside the provision of capacity building and resources for implementation.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
3.1 Develop and implement Provincial DRR Strategies and Plans, and Local DRR Plans in selected high risk provinces, districts and/or villages	3.1.1 Using hazard mapping and data on vulnerable communities, MLSW to work with other sectors, provincial authorities, stakeholders and international cooperation to: 1) identify a group of high priority provinces for development of Provincial DRR Strategies and Plans; and 2) identify a list of high-risk districts and/or villages to develop Local DRR Plans. 3.1.2 Secure the necessary State budget and international cooperation resources to support development and implementation of Provincial DRR Strategies and Plans and Local DRR Plans aligned with this NSDRR and the Sendai Framework in the identified high-risk provinces, districts and/or, villages, as well as associated training and support	MLSW, CDMC, PDMC, DDMC

	materials in Lao language as part of the Framework for National Capacity Building on DRR under Objective 10.
	3.1.3 Implement Phase 1: 1) Progressively develop and implement Provincial DRR Strategies and Plans, and capacity building in the identified priority Provinces in accordance with the Framework for National Capacity Building on DRR under Objective 10; and 2) Coordinate international cooperation to develop and implement Local DRR Plans and community based DRR projects in the selected high-risk districts and/or villages.
	3.1.4 Plan for Phase 2: Develop the plan and secure State budget and international cooperation for the Phase 2 (2026-2030) implementation in the remaining priority provinces, districts and/or villages.
3.2 Monitor and evaluate the	Design and implement a monitoring and evaluation framework for:
provincial and local DRR strategies and plans	1) Provincial DRR Strategies and Plans; and 2) Analysis of evaluations of Local DRR Plans and community based DRR projects developed with international cooperation.

Objective 4: To develop capacity, undertake risk mapping and assessments, manage and share disaster risk data and information efficiently within and between ministries and agencies, while also meeting international reporting requirements.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
4.1 Identify risk areas and conduct risk mapping and risk assessments in high risk areas	Based on the methodology currently being developed by MSLW, include in the 5-Year National DRR Action Plan targets to progressively undertake risk mapping and risk assessments at national level and in identified priority provinces.	MLSW, CDMC, concerned ministries
4.2 Strengthen the Lao disaster information system (Lao-Di)	1) Develop a roadmap for Lao-Di and disaster data development, including targets to update information and data in Lao-Di and ensure there is ongoing personnel capacity and information technology to maintain it and to analyze and use the data;	MLSW, CDMC

	2) Conduct the National Risk Census and produce an updated Disaster Risk Atlas;	
	3) Develop the capacity to meet the essential reporting requirements under the Sendai Framework Monitor on disaster deaths, injuries, damage and loss;	
	4) Develop the capacity to collect and analyze disaster impact data disaggregated by age and sex (at a minimum), and other factors such as disability to the extent possible, to meet the needs of national policy making and planning, as well as the reporting requirements under the 2030 Agenda (SDGs), especially SDG 5 on gender equality, and the optional data reporting under the Sendai Framework Monitor.	
4.3 Develop a risk data/ information system, access and use the information/data	Identify international cooperation and agree targets to develop a more integrated system for sharing disaster risk data across sectors and between different levels of Government, with specific budgets for information management. This can potentially include:	MLSW, CDMC, MPI, National Burau of Statistics,
	1) The establishment of compatible technology and agreed protocols to collect and share data and information between the Lao-Di database and all relevant ministries;	MONRE (DOMH), concerned ministries
	2) The establishment of compatible technology and agreed protocols to collect and share data and information between central, provincial, district and village levels;	
	3) Working to enhance analysis and access to baseline population data relevant to disaster risk; and	
	4) Working to enhance collection of data on economic losses in disasters and socio-economic data collection, with sharing across ministries and between national and local levels, to support sectors and local administrations in identifying and reducing socio-economic risks.	
4.4 Undertake institutional capacity and resilience	1) Adopt a suitable methodology for institutional capacity and resilience assessments at national level, and undertake a national institutional capacity assessment;	MLSW, CDMC
assessments	2) Conduct institutional capacity and resilience assessments for identified high priority provinces and districts; and	
	3) Develop a plan for further assessments and capacity building (for implementation during 2026-2030) as part of the Framework for National Capacity Building on DRR under Objective 10.	

Objective 5: To build and maintain infrastructure that is more resilient to disasters and understand the sources of vulnerability in disasters, in order to increase resilience of the identified vulnerable groups and communities: people living with disabilities, children, the elderly, women who are pregnant or nursing mothers, women and girls at risk of gender-based violence, members of remote rural communities and people living in poverty.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
5.1 Support to enhance disaster resilience of infrastructure such as roads, bridges, water supply systems, irrigation, hydropower projects, schools, hospitals, government buildings, cultural and heritage sites, etc.	5.1.1 Convene a multi-sector Taskforce on Resilient Infrastructure to develop a cross-sector mechanism and process for advice, planning, construction and maintenance of disaster and climate change-resilient built infrastructure and maintenance of the "green" infrastructure (the natural features that contribute to disaster and climate resilience, such as forests and water catchments, and which can complement or combine with conventional engineering in "greygreen" hybrid infrastructure).	MPWT, MAF, MONRE, MEM, MOIC, MOH, MOES
	The Taskforce may consider: 1) Technical support, capacity building in engineering and nature-based risk reduction, including for civil engineering, hybrid environmental and constructed infrastructure, and the use of natural assets such as forests and water catchments;	
	2) Inspection and quality control for climate and disaster resilience of new constructions, including their impacts on and use of natural resources; 3) Review of relevant building and construction codes and, if necessary, development or adoption of new codes or standards;	
	4) Planning for cyclical maintenance and inspection of existing roads and built infrastructure.	
	5) Development of a policy and technical framework for hybrid and nature-based solutions; and	
	6) Development of relevant contract provisions for Public Private Partnerships and private sector contracts for the construction and maintenance of public infrastructure.	
	5.1.2 By 2025 agree and establish the ongoing institutional arrangements for ensuring advice, planning, and coordination for resilient infrastructure, including monitoring and evaluation, any regulatory requirements to put the arrangements into effect (e.g.	

	laws, decrees, orders, guidelines) and budget resources.	
5.2 Collect and analyze quantitative data and conduct qualitative research on vulnerable groups and ways to increase their resilience	5.2.1 Seek partner resources, academic and technical expertise and targets to commission quantitative and qualitative research on the sources of vulnerability and the available data, to identify knowledge gaps and recommend a range of potential policy responses to increase resilience.	MLSW, CDMC, MOES, Education Institutions, LWU, National Committee for Persons with Disabilities, Commission for women and children's affairs, and Lao Red Cross
	5.2.2 Based on the research evidence, working with Lao-Di database and Lao Bureau of Statistics, establish systematic collection and analysis of disaggregated quantitative data on vulnerable groups in relation to disasters, at a minimum including age and gender-disaggregated data, and as soon as possible data on people with disabilities and their needs, and people of diverse sexual orientations and gender identities, due to their vulnerability in disasters.	
5.3 Reduce risk, protect and support families and organizations of people living with disabilities	5.3.1 Convene a National Taskforce on Disability and Disasters and include targets to undertake research, increase awareness and support resilience of people living with disabilities and their families. In accordance with the Decree on Persons with Disabilities 2014, which implements the UN Convention on the Rights of Persons with Disabilities, and includes specific articles on women with disabilities, children with disabilities, and people with disabilities in situations of risk and humanitarian emergencies (Articles 6,7,11)). The role of the Taskforce may include developing plans to:	MLSW, National Committee for Persons with Disabilities
	1) Design and implement ways to provide targeted information on warning, evacuation and other aspects of disaster response to people with disabilities and/or their families;	
	2) Work with the National Committee for Persons with Disabilities and stakeholder groups, to explore ways to ensure that the needs of people with disabilities are considered in local disaster response and recovery; and	
	3) Mobilize community volunteers to support evacuation and provide other assistance for people with limited mobility or disabilities.	
	5.3.2 by 2025 provide recommendations and develop a 5-year plan on DRR for people living with disabilities and their families, including budget resources, monitoring and evaluation.	

5.4 Prevent	5.4.1 Develop clear terms of reference and convene a	MLSW,
violence against	National Taskforce on the Prevention of Violence	LWU, MOJ,
women and girls	Against Women and Girls in Disasters and include	Commission
in disasters, for	targets to undertake research, increase awareness,	for women
prevention and	prevent and provide support to victims of sexual and	and children's
response to sexual	gender-based violence, in communities displaced or	affairs
and gender-based	affected by disaster. To be based on the Law on	
violence in a	Gender Equality, the 2017 changes to the criminal	
disaster	law and procedure to prevent violence against	
	women, the Second National Plan of Action on	
	Eliminating Violence and Against Women (2021-	
	2025), and the Convention on the Elimination of All	
	forms of Discrimination Against Women (CEDAW).	
	The role of the Taskforce may include to:	
	1)Adapt for local use published standards from the	
	UN Inter-Agency Standing Committee clusters on	
	protection, shelter, health and social welfare, in	
	particular minimum standards to prevent and mitigate	
	gender-based violence (GBV) in emergencies and	
	emergency shelter; and	
	2) Develop a multi-agency contingency plan and	
	action group to provide additional support and/or	
	surge capacity during disasters to reduce the risk of sexual and gender-based violence during disaster	
	events and recovery, to raise awareness and to	
	provide psychosocial and legal support.	
	5.4.2 Include prevention and response to GBV in disasters in the National Plan of Action to End	
	Violence Against Women and establish any necessary	
	structures, regulatory frameworks, monitoring and	
	evaluation and budget resources.	
	evaluation and badget resources.	
5.5 Set up and	Implement the cross-sector mechanism and process	MLSW,
implement cross-	for ensuring advice, planning, and coordination for	MPWT,
sectoral mechanisms and	construction and maintenance of disaster and climate	MONRE,
processes for	change-resilient infrastructure (see 5.1 above).	MAF
resilient		
infrastructure		

Objective 6: To reduce loss of life, property and livelihoods from disasters, such as floods, storms, drought, and landslides through prevention actions, continued improvement to early warning systems, and to support community preparedness for rapid evacuation or other coping strategies to avoid disaster losses.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
6.1 Review the infrastructure, equipment and personnel capacity for Early Warning of Weather Hazards	6.1.1 Review and make recommendations on the infrastructure and equipment, personnel capacity, design and coverage of the systems currently in use to monitor weather, river levels and other hazards and provide short range and long range forecasting, and identify resource allocation and planning to fill the priority gaps.	MORE, DOMH, MLSW
and disasters	The review will include areas the Government has identified as initial priorities, being to:	
	1) Make use of the international standard format for emergency alerting and public warning, the Common Alert protocol (CAP);	
	2) Increase the number and technical capacity of weather monitoring facilities throughout the territory;	
	3) Upgrade telecommunications and television broadcasting equipment and forecasting capacity at central level; and	
	4) Create a pool of qualified IT experts, including by ensuring all partner projects include IT and data analysis training and capacity building of local staff.	
	6.1.2 Prepare a plan for EWS systems upgrade and expansion based on the recommendations from the review, and identify resources for its implementation.	
6.2 Develop Early Warning Systems (EWS) that can reach all the people with warning messages	Continue development of a variety of methods to inform the population in high-risk areas, aiming for end-to-end people-centered early warning systems that take account of different needs, ethnic languages, disabilities that affect communications (e.g. sight and hearing impairments), and differing access to communications technology. Lead agencies to plan for the development of more effective methods to warn communities of approaching hazards, including information on the level of risk and likely impacts on them, as well as issue evacuation notices that harmonize with community-based awareness-raising	MLSW, MORE (DOMH), MOPT

and evacuation drills under Local DRR Plans. This will include:

- 1) Using the results of current pilot projects on use of mobile phones to issue warnings; and
- 2) As part of the Framework for National Capacity Building on DRR under Objective 10, a plan and targets for community capacity building in priority high risk areas, to ensure communities are able to prepare for and respond to evacuation warnings, including awareness-raising, evacuation drills, and local contingency plans for people with disabilities, or elderly people with limited mobility.

Strategy 2: Strengthen disaster response and emergency assistance.

Objective 7: To expand national capacity for rapid and effective humanitarian response to disasters to reduce immediate suffering and loss of life as well as secondary health and welfare impacts.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2025		
7.1 Enhance technical capacity for early response through investment in equipment, vehicles, communications technology and capacity building for Government first responders	 7.1.1 Undertake a review to identify needs, resource allocation and planning for: 1) Necessary upgrades to equipment and vehicles, including at local level in high-risk districts; and 2) Training of first responder personnel for rapid safety assessment and repair of disaster affected buildings, roads and other infrastructure. 7.1.2 Prepare a plan and identify resources for: 1) Essential equipment upgrades to 2030; and 2) Training and capacity building of first responders as part of the Framework for National Capacity Building on DRR agreed under NSDRR Objective 10 7.1.3 Organize exercises on emergency response at both national and local level. 	MLSW, MOND, MOPS, MOFA, MPWT
7.2 Build national personnel capacity on rapid impact assessments and needs assessments after a disaster	7.2.1 A technical working group of the lead agencies will: 1) Review different ASEAN or similarly situated countries' models for rapid assessment teams and/or mechanisms to undertake rapid damage assessments and rapid needs assessments; and 2) Make recommendations on an appropriate model for rapid assessment teams in Lao PDR, including the necessary resourcing and planning to increase the capacity as part of the Framework for National Capacity Building on DRR agreed under NSDRR Objective 10.	MLSW, CDMC, MOH, MPWT, MAF, other concerned ministries

	7.2.2 Under the Framework for National Capacity Building on DRR agreed under NSDRR Objective 10, implement capacity building for Government first- responders on:	
	1) Rapid damage assessments focusing on damage to buildings, roads, infrastructure, and the environment, with a view to ensuring public safety and restoration of essential utilities; and	
	2) Rapid needs assessments focusing on the immediate health and social welfare needs of affected communities, and measures for prevention and response to secondary health and welfare impacts such as disease outbreaks, food scarcity, violence against women and girls, and accidents due to use of unsafe roads or structures.	
7.3 Enhance the availability of food by establishing food and emergency rice stocks	Leading agencies will jointly research and review the relevant legislation, such as: 1). legislation tools and mechanisms for managing available reserved rice and food stocks in Lao PDR and in some ASEAN and non-ASEAN countries;	MLSW, MOF, MAF, MOIC, other concerned sectors
SIOCKS	2). Development of Standard Operating Procedures (SOP) for implementation of food stocks and emergency rice to facilitate the coordination and use of food stocks and reserved rice during disaster emergencies	

Strategy 3: Develop and strengthen post-disaster recovery.

Objective 8: To ensure that the socio-economic needs of affected communities, as well as physical reconstruction, are addressed in ways that increase future resilience in accordance with the Sendai Framework commitment to "Build back better".

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2025		0
8.1 Enhance post-disaster recovery planning based on post-disaster need assessments (PDNAs);	The lead agencies to support systematic planning for recovery and reconstruction across the sectors by: 1) Reviewing the various post-disaster needs assessments used in previous disasters - PDNA, WHO tool for health, and environmental needs assessments - and make recommendations on how to enhance coordination and information exchange on the different types of needs and vulnerabilities in communities affected by disasters; and 2) Develop a methodology and facilitate an agreed protocol on sector roles and responsibilities in data gathering and analysis and preparation of PDNAs. This would include analysis of data disaggregated by age and sex and other characteristics of affected persons where possible, as well as gender impacts and needs assessments.	MLSW, CDMC, MPI, MPWT, MAF, MOH, MOES, MONRE, other concerned ministries
8.2 Review the institutional mechanism for recovery and reconstruction following major national disasters	The lead agencies to consider recent experience of major disasters and make recommendations to the Government on the most effective institutional mechanisms for coordination and resource management in recovery and reconstruction following major national disasters (e.g. to consider whether there is a need to set up a special recovery institution or body for major national disasters, or whether current structures need more resources and capacity).	MLSW, CDMC, MPI, MPWT, MAF, MOH, MOES
8.3 Plan and implement recovery and reconstruction mechanism	Based on the recommendations of the review (see 8.2 above), plan and implement a long-term standing mechanism for recovery and reconstruction planning and implementation.	MLSW, CDMC, MPI, MPWT, MAF, MOH, MOES

Strategy 4: Strengthen sectoral coordination on disaster risk reduction, emergency response and recovery.

Objective 9: To clarify roles and responsibilities of the sectors in DRR, preparedness and response to different hazard types, and recovery in accordance with the DM Law and sector mandates.

Focus Area	Activities included in the Action Plan	Lead Ministries/
		Organisation
For 2021-2030		
9.1 Develop	Coordination and support for sector DRR:	MLSW,
Standard Operating Procedures for coordination and enhance the	1) MLSW and the central and local Disaster Management Committees to coordinate sector DRR planning and capacity building in accordance with their assigned roles under the DM Law Articles 51 and 58 and 59;	CDMC, MPI
capacity for sectoral DRR and emergency response planning	2) MLSW and MPI to support sector DRR planning and capacity building in accordance with the Framework for National Capacity Building on DRR agreed under NSDRR Objective 10;	
	3) Each sector is to revise or develop multi-hazard DRR and disaster preparedness and response plans and standard operating procedures (SOPs) for disaster risks in their sector that align with this NSDRR; and	
	4) Sector Ministries may establish a Ministerial Disaster Management Committee as an agency supporting the work of the Central Disaster Management Committee and as a focal point for coordination, or another focal point, in accordance with DM Law Article 52.	
9.2 Health emergencies - Preparedness and response	Develop guidelines and a mechanism for cross- sectoral coordination in disaster preparedness and response to health emergencies, responsibility and resource allocations for:	MOH, MLSW
coordination on pandemics, epidemics and health consequences of different disasters	1) Disaster management, control and treatment in epidemics and pandemics;	
	2) Emergency medical response to immediate injuries and impacts of natural and other hazards;	
	3) Capacity and process for rapid health needs assessments in disasters (e.g. using the WHO tool);	
	4) Medical and psycho-social support during recovery for people affected by disasters, including sexual and gender-based violence, nutrition support, continuity	

	of treatment for chronic illnesses, special needs related to people living with disabilities, women's reproductive health, children and the elderly;	
	5) GPS mapping of health facilities locations, their exposure to natural hazards and their logistics capacity for local and national medical response;	
	6) Data management, enabling health sector data to remain accessible to health professionals, while maintaining patient confidentiality in procedures for health and data sharing; and	
	7) Public education on health and disease prevention and health self-care in disasters.	
9.3 Hydropower dam operations and accidents - Early warning and emergency response coordination	Develop guidelines, a mechanism and action plan for coordination across sectors and with the private sector in early warning and disaster response for floods and other safety issues related to construction or operation of hydropower dams, potentially using regulations, contractual requirements and SOPs to ensure that dam project developers, construction companies and operators:	MEM, MPI, MONRE, MLSW.
	1) Undertake sufficient site risk and impact analysis including community consultations under the Law on Environmental Protection and other relevant laws, decrees and policies;	
	2) Immediately disclose a safety issue, risk or threat identified before or during construction or operation, including the risk of the dam breaking, and work with the local and central authorities to ensure the safety of communities at risk;	
	3) Maintain effective early warning systems linked to the local administration and EWS system to notify of accidents, incidents, or relevant weather and climate conditions that pose a risk to a dam and/or downstream communities, including the likelihood of the dam breaking; and	
	4) During normal operations, provide adequate and timely warnings for the local government and downstream communities of scheduled water releases from dams.	
9.4 Strengthen watershed and	Review watersheds and water resources management as the basis for a policy framework to provide for:	MONRE, MEM, MAF, MLSW
water resource management - Cross-sectoral DRR coordination	1) Balancing short, medium and long term water needs, including long-term seasonal forecasts to estimate the demand for hydropower production with irrigation water supply for agriculture, household and	IVILO W

	industrial supplies across the dry season and the wet season, and environmental needs;	
	2) Water reservoir area management for high efficiency water use in agriculture; and	
	3) Other issues identified during the review.	
9.5 Environmental crises, including pollution events, industrial accidents, and wildfires - Cross-sectoral coordination in DRR, preparedness and emergency response	Conduct a review to identify the priority areas to address and develop guidelines for multi-sectoral coordination of single incidents and complex environmental emergency events in both urban and rural areas including consideration of:	MOIC, MONRE, MAF, MLSW
	1) Key issues for environmental DRR and preparedness including: i) Systematic environmental risk mapping and risk reduction; ii) Climate change monitoring and adaptation information and data to inform DRR; iii) criteria for environmental assessments prior to development approvals under the Law on Environmental Protection Law, to support DRR, take account of climate change, and assess the impact of large-scale infrastructure on catchments and water resources; iv) land use classification and land management to prevent land degradation; v) forestry watershed classifications, river basin and catchment management, including an increase in hydrology stations and prevention of deforestation; and (vi) national earthquake monitoring;	
	2) Key issues for environmental disaster response, including: (i) shared disaster risk information data and early warning systems; (ii) SOPs for coordination of environmental disaster response; and (iii) post-disaster environmental needs assessments; and	
	3) Develop a plan for implementation during 2026- 2030	
9.6 Predictions or occurrence of	Develop guidelines for cross-sectoral coordination on disaster risks for the agricultural sector, including:	MAF, MONRE,
agricultural pests, plant or animal disease outbreaks and drought - Cross-sectoral coordination in DRR, preparedness and emergency response	1) Early warning of weather and climate events & phenomena, including droughts;	MLSW
	2) Adaptation of agriculture to the changing nature and intensity of natural hazards as a result of climate change;	
	3) Early warning, prevention and management of crop diseases and insect pests, including by: i) Promoting suitable crop disease and pest controls as green and sustainable development in disease, pests and weed management; ii) Strengthening laboratory capacity in analyzing pesticides and herbicides; iii) Setting a standard quality control system for	

- pesticides and other crop protection chemicals; and iv) Promoting quality control and certification from the government and private sector;
- 4) Improving animal hygiene and health by: i) Surveying animal disease epidemics regularly to identify the spread of different diseases; ii) Building emergency plans and finding funding sources for animal health hazards; iii) Strengthening data systems and expertise in animal health; iv) Enhancing capacity in animal disease vaccines and the production and distribution of veterinary medicines; v) Developing commercial production areas that are free from animal diseases; vi) Setting quality and safety standards for livestock production and veterinary equipment.
- 5) Controlling livestock movement and quarantine by: i) Checking animal health and issuing a health certificate before moving animals by local veterinary workers; ii) Developing livestock transportation routes with suitable trucks with good ventilation and sufficient space; and iii) Developing and facilitating quarantine within the country and at the borders; and
- 6) Develop a plan for implementation during 2026-2030.

Strategy 5: Enhance national and local DRR education and training

Objective 10: To increase DRR capacity for civil servants and community leaders in a sustainable way by using training and education resources within Lao PDR.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
10.1 Develop a Framework for National Capacity Building on DRR	10.1.1 Develop a Framework for National Capacity Building on DRR, in accordance with the focus areas for action identified under this NSDRR Objective 10, other NSDRR Objectives, and any other elements identified during consultations for the development of the Framework, including:	MLSW, CDMC, MOES
	1) support higher education and vocational curriculum and teaching capacity on DRR/DRM;	
	2) mainstream DRR/DRM into school education and civil service training;	
	3) undertake specific capacity building for government officials from central to village level, Disaster Management Committees (central, provincial, district and village), and local community leaders.	
	10.1.2 Identify State budget and international cooperation resources and establish priorities for implementation of the Framework for National Capacity Building on DRR for a Phase 1 during 2021-2025, and a Phase 2 during 2026-2030.	
10.2 Support vocational and higher education sectors to provide accredited national DRR and disaster management education	Within the Framework for National Capacity Building on DRR, lead agencies to formulate a plan of action for increased higher education and vocational sector DRR and disaster management education programmes, and identifying potential partners and budget resources for implementation, including:	MOES, universities, MLSW
	1) Work with the National University to support implementation of a Bachelor of DRM, including technical risk assessments and components on gender analysis and identifying and meeting the needs of vulnerable groups;	
	2) Work with the Department of Vocational Education to support inclusion of DRM in the curriculum, including components on gender analysis	

	and identifying and meeting the needs of vulnerable groups; 3) Support English language learning of university and vocational education teachers, and university students to enable postgraduate studies at leading institutions abroad in DRM, climate change and environment-related fields; 4) Ensuring gender balance in opportunities for training and education in DRM, including support for participation by ethnic women from high-risk areas to work in their communities to build resilience; 5) Develop a plan for a Phase 2 expansion in DRM teaching programmes (for implementation during 2026-2030); and 6) Develop a plan and identify resources for progressive inclusion of DRR awareness in the primary and secondary schools' curriculum (for implementation during 2026-2030).	
10.3 Build capacity to educate local authorities and communities on DRR continuously	Within the Framework for National Capacity Building on DRR, lead agencies to identify curriculum needs, State budget and international cooperation resources to: 1) Develop curriculum for civil service training on DRR and disaster management from central to local level officials;	MLSW, MOES, universities
	2) Commence implementation of disaster management modules in basic civil service training for all sectors;	
	3) Develop training of trainer DRR and disaster management course materials in Lao language, for use within the civil service for training from central to local level officials; and	
	4) Implement Phase 1 of a DRM training of trainer program within the civil service at central level and in identified priority provinces and /or districts	
10.4 Enhance the capacity of Disaster Management Committees	Within the Framework for National Capacity Building on DRR, develop and implement capacity building for Disaster Management Committees at central, provincial, district and village levels. This will aim to use the training resources and training of trainer capacity developed within the civil service under this NSDRR Objective 10 (see 10.3 above).	MLSW and MOES

10.5 Enhance the knowledge and capacity of local and community leaders on DRR continuously	Within the Framework for National Capacity Building on DRR, MLSW to work with national stakeholders and international cooperation projects at the community level to: 1) Identify resources and the most appropriate methodology and selection criteria for training community leaders in DRR and disaster management, noting the importance of increasing women's engagement in DRR in decision-making roles, and the need to build resilience in the most vulnerable communities; and	MLSW, Local Authorities, Village Committees, Lao Red Cross, and community partners
	2) Develop and progressively implement a Phase 1 plan for training of community leaders (women, men and youth) in identified priority communities	

Strategy 6: Promote participation and stakeholder engagement and inclusion.

Objective 11: To develop new mechanisms for engagement of non-governmental stakeholders in DRR, to support a whole-of-society approach in accordance with the Sendai Framework, including the private sector, especially micro, small and medium enterprises (MSMEs), organizations that support women's socio-economic resilience and those that represent the needs of vulnerable groups.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
11.1 Set up an Advisory Group on Private Sector Resilience (AG- PSR) to build the capacity for business continuity management against climate	11.1.1 Undertake consultations with the private sector to establish terms of reference and appoint the members of a 10-member standing Advisory Group on Private Sector Resilience.	MLSW, CDMC, MOIC, LNCC
	The overall purposes of the group will be to act as a joint government-private sector advisory and action group, to advise MLSW on building DRR and disaster management awareness and resilience within the private sector, including:	
and disaster risk, especially for	1) Training on business continuity in the face of disaster hazards, especially for MSMEs;	
micro, small and medium enterprises	2) Reducing disaster risk and preventing the creation of new risks from business construction or activities; and	
(MSMEs) in agriculture and tourism, including rural areas and female leaders	3) Organizing national and local level support from the private sector to contribute to DRR and disaster response with expertise, resources or budget in accordance with DM law Article 46.	
	11.1.2 The Advisory Group on Private Sector Resilience will review research and resources on MSME capacity building from current and previous projects to:	MLSW, MOIC, LNCC.
	1) Adapt and translate existing training resources available in the ASEAN region and, with private sector organizations, develop a framework for offering training and support to MSMEs on business continuity management including climate and disaster resilience; and	
	2) In cooperation with private sector organizations, provide gender-inclusive capacity building for MSMEs to reduce disruption to business and supply chains from disasters and climate change, including	

	targeted opportunities for rural tourism and womenled MSMEs.	
11.2 Set up an Advisory Group on Resilience of Women and Vulnerable Populations (AG-RWVP)	The lead agencies will undertake consultations to establish terms of reference and appoint the members of a 10-member standing Advisory Group on Resilience of Women and Vulnerable Populations. This will include government, international partners and non-profit associations working in Lao PDR towards the empowerment and disaster resilience of women and vulnerable groups, including people living with disabilities, children, the elderly and remote rural communities. The overall purposes of the group will be to act as a joint government and community sector advisory and action group, to build national expertise in increasing disaster resilience, and advise the MLSW on: 1) Relevant international standards and research to support disaster resilience of women and vulnerable populations; 2) Effective methodologies for the inclusion and empowerment of women and vulnerable groups in decision-making roles in DRR and disaster management in Lao PDR; and 3) Priority needs of women and vulnerable groups identified in their work at community level.	MLSW, LWU, Commission for women and children's affairs, National Committee for Persons with Disabilities

Strategy 7. Budget and disaster risk financing

Objective 12: To ensure sufficient State budget for regular DRR and disaster management activities within MLSW and other concerned ministries, to make readily available funds for quick response from central to local level, and to enhance access to international support for DRR, disaster risk financing and insurance, and recovery and reconstruction after a major disaster.

Focus Area	Activities included in the Action Plan	Lead Ministries/ Organisation
For 2021-2030		
12.1 State budget allocations for DRR and disaster management and potential sources of international funding	12.1.1 Review State budget allocations for DRR and disaster management to support the ongoing requirements for implementation of the DM Law and the National DRR Action Plans until 2030, and to make available ready funds for quick response from central to local level according to a new decree on Disaster Funds required by the DM Law (see Objective 1). Such a review may consider contributions to State disaster funds at central, provincial and district levels based on a percentage of annual budget expenditure for DRR and disaster management at each level.	MLSW, CDMC, MPI, MOF
	12.1.2 Identify international cooperation resources to support the ongoing requirements for implementation of the DM Law, the National DRR Action Plans, the Provincial DRR Strategies and Plans, and the Local DRR Plans, until 2030.	
12.2 Insurance and disaster risk financing for State and private assets and enterprises	12.2.1 Lead agencies to review and report on current mechanisms and potential options for improved insurance and disaster risk financing to reduce the burden of disasters on State revenues, enterprises and individuals, including agricultural production, and to support recovery and reconstruction. The review may consider:	MLSW, CDMC, MOF, MPI
	1) The results of the pilot of the Southeast Asia Disaster Risk Financing (SEADRIF) State disaster insurance for Lao PDR;	
	2) Other options for public or private insurance of public infrastructure, roads and bridges, irrigation, buildings etc. against climate and disaster risk; and	
	3) How to develop or encourage the provisions of insurance and recovery finance products to be available to individuals and enterprises, including farmers, household businesses and other MSMEs.	

	12.2.2 Lead agencies to develop a plan and mobilize resources to improve disaster risk financing, including insurance, forecast-based financing, recovery and reconstruction financing, and other innovative financial tools, for State and private assets and enterprises, including utilization and adaptation	
	of existing financial institutions and programmes.	
12.3 Strengthen Disaster Management Funds for disaster management application at both central and local levels	12.3.1 Implement recommendations from review of State budget allocations and to support implementation of the DM Law, the National DRR Action Plan, and for development and implementation of the Provincial DRR Strategies and Plans and the Local DRR Plans (see 12.1.1 above).	MLSW, CDMC
	12.3.2 Implement international cooperation partnerships to support development and implementation of the Provincial DRR Strategies and Plans and the Local DRR Plans (see 12.1.2 above).	

References

¹ Sustainable Environment and Ecological Development Society Report, 2020

- ² UNFCCC COP 21, "Paris Agreement," in Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 13 December 2015. Addendum Part Two., Decision 1/CP.21, FCCC/CP/2015/10/Add.1 (Paris, France: United Nations, n.d.), 21–36, https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf
- ³ United Nations, Transforming Our World: The 2030 Agenda for Sustainable Development. Resolution Adopted by the General Assembly on 25 September 2015 (A/RES/70/1), A/RES/70/1, 2015, https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.
- ⁴ United Nations, *New Urban Agenda (A/RES/71/256)* (New York, NY, USA: United Nations, 2017), http://habitat3.org/wp-content/uploads/NUA-English.pdf.
- ⁵ United Nations, "Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)," Third International Conference on Financing for Development (New York, NY, USA: United Nations, 2015), https://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf.
- ⁶ United Nations, "Agenda for Humanity, Annex to the Report of the Secretary-General for the World Humanitarian Summit (A/70/709, 2 February 2016)" (New York, NY, USA, 2016), https://www.agendaforhumanity.org/sites/default/files/AgendaforHumanity.pdf
- ⁷ ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Work Programme 2021-2025, p.14
- ⁸ MPI, 19 November 2018, Pre-Final Draft Mid-Term Review of the Eighth National Socio-Economic Development Plan, 2016—2020
- ⁹ The Government of the Lao PDR, 2018, Post-Disaster Needs Assessment 2018 Floods, Lao PDR
- ¹⁰ National Round Table Process, https://rtm.org.la/
- ¹¹ Sysaneth. S, 2019, Community Participation In Flood Risk Management Along The Mekong River In Lao PDR-A Case Study in Champasak Province
- ¹² Christel Rose et al., "Words into Action Guideline: Developing National Disaster Risk Reduction Strategies," Words into Action Guidelines (Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR)), accessed July 16, 2019, http://www.unisdr.org/files/65095_wianationaldrrstrategies10052019.pdf.

