

DRAFT

Disaster Risk Finance Country Diagnostic Note: Lao PDR



Disaster Risk Financing
& Insurance Program



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GFDRR
Global Facility for Disaster Reduction and Recovery

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Acknowledgements

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ABBREVIATIONS

AGL	Assurances Generales du Laos
ASEAN	Association of Southeast Asian Nations
Cat DDO	Catastrophe Deferred Drawdown Option
DDMCC	Department for Disaster Management and Climate Change
DDPCC	District Disaster Prevention and Control Committee
DRF	disaster risk finance
FY	fiscal year
GDP	gross domestic product
GoL	Government of Lao PDR
IDA	International Development Association
Lao PDR	Lao People's Democratic Republic
MLSW	Ministry of Labour and Social Welfare
MoF	Ministry of Finance
MoNRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MPWT	Ministry of Public Works and Transport
NDMC	National Disaster Management Committee
NDMO	National Disaster Management Office
NDPCC	National Disaster Prevention and Control Committee
OCHA	Office for the Coordination of Humanitarian Affairs (United Nations)
PDPCC	Provincial Disaster Prevention and Control Committee
PM	prime minister
SRD	State Reserve Department
UNDP	United Nations Development Programme

CURRENCY EQUIVALENTS

(Exchange rate as of August 2016)

Currency unit = Lao Kip (LAK)

US\$1 = LAK 8,100

FISCAL YEAR

October 1–September 30

Executive Summary

This Disaster Risk Finance (DRF) Country Note for the Lao People's Democratic Republic (Lao PDR) provides a review of the country's current system of public financial management of natural disasters, including existing DRF instruments, their operational status, and budget mobilization and execution procedures used following a disaster. This note also aims to identify gaps where potential engagement could further develop financial resilience.

The impact of floods and droughts is a major concern for Lao PDR: an average of 200,000 people per year were affected by floods over the period 1991–2013.¹ Lao PDR experienced major typhoons in 2009 (Ketsana) and in 2011 (Haima), resulting in damages estimated at over US\$121 million. Severe flooding in 2013 caused damages in excess of US\$270 million.

The World Bank estimates, using basic modeled flood impacts, that annual expected losses for Lao PDR from flood events range between 2.8 percent and 3.6 percent of gross domestic product (GDP). Expected economic losses from a high-impact flood (one occurring on average once every 100 years) are 11.7 percent of GDP, based on analysis using historical loss data from the EM-DAT database (World Bank and GFDRR 2012). This is the highest value relative to GDP in the Association of Southeast Asian Nations (ASEAN) region.

The impacts of disasters in Lao PDR create large costs for the government, businesses, and households. The estimated average annual fiscal cost of floods is 2.7 percent of government expenditures. The cost can be as high as 9 percent of budget expenditures in years with more severe events. In the past, the government has had insufficient funding arrangements in place for major disaster events; the costs of previous disasters have outweighed the resources

allocated for post-disaster expenditures from contingency budgets and disaster funds.

The government established the State Reserve Fund in 2013 to help finance the cost of disasters, and the fund is in the process of being operationalized. Standard operating procedures are being developed for the fund to guide the allocation and use of resources.

Lao PDR has total resources of around LAK 400.5 billion (US\$49 million) available from three main national level funds that are accessible for disaster response and recovery expenditures. The State Reserve Fund and National Contingency Fund receive annual budget appropriations of LAK 300 billion (US\$37 million) and LAK 100 billion (US\$12 million) respectively. The Social Welfare Fund receives an annual allocation of approximately LAK 500 million (US\$62,000). The Road Maintenance Fund may also be partly used for disaster recovery under a new draft decree, and a Disaster Management Fund is in the process of being established.

The scope of use of existing funds for disaster-related expenditures is found to be wide-ranging within funds, and there are several areas of overlap across funds. Almost all of the current funds finance disaster relief and response as part of their mandated use; at least two funds simultaneously finance risk reduction and preparedness activities; and at least four funds finance rehabilitation and reconstruction expenses.

Lao PDR does not currently have a contingent credit facility available for accessing additional funds in the event of a disaster, and is not utilizing sovereign risk transfer or insurance instruments for financing large-scale disasters. The government does not insure public assets (other than vehicles); where there is private sector involvement in public assets (as in hydropower or mining, for example), the private sector is responsible for those assets. The domestic insurance market is still quite undeveloped, and Lao PDR has the fourth-lowest non-

1. D. Guha-Sapir, R. Below, and Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be.

life insurance penetration as a percentage of GDP among ASEAN members.

Between 2000 and 2010, disaster-related donor commitments to Lao PDR totaled US\$74 million.² Of this, 68 percent was for emergency response, and 31 percent for disaster preparedness and prevention activities. This source of financing is highly unpredictable and does not allow the government to plan for a fast disaster response. In addition, this financing will likely become increasingly scarce over time as Lao PDR graduates from low-income-country status.

The implementation of the state budget during the fiscal year follows the planned budget allocations very closely, and no budget reallocations have taken place following disasters, according to the Budget Department. There has also been no reported use of additional taxes as an instrument to raise revenue following disasters. The relatively high level of external public debt may restrict additional borrowing to finance the cost of disasters in the medium term.

This note presents for consideration a number of options to further strengthen Lao PDR's financial resilience:

1. **Existing funds with disaster-related uses should be reviewed and could be aligned or combined with the State Reserve Fund, based on the scope of use of the existing funds.** This approach will help to centralize the use and monitoring of disaster-related expenditures, and avoid overlapping uses of different existing funds.
2. **The new Disaster Management and Climate Change Law being developed by the Ministry of Natural Resources and Environment with support from the United Nations Development Programme could include specific DRF provisions.** The new law could support the legal framework for the State Reserve Fund and could also define a process for an official declaration of disaster by the government.
3. **A national DRF strategy for Lao PDR and an implementation plan with priorities for action should be developed.** This is a key step for developing a sustainable comprehensive DRF program in Lao PDR, and for clarifying the feasibility of implementing other DRF instruments. This option will help the government improve its portfolio of DRF instruments and further increase the efficiency and effectiveness of financing disaster response.

² Global Facility for Disaster Reduction and Recovery (GFDRR), Disaster Aid Tracking database, <http://gfdrr.aiddata.org/dashboard>.

1. Introduction

The Lao People’s Democratic Republic is exposed to multiple natural hazards, including typhoons, storms, floods, landslides, and droughts. The country has been severely affected by disasters in recent years, including typhoons in 2009 and 2011 that caused widespread damage as well as severe floods in 2013. The increasing severity of hazards in recent years has confronted the government with increasing costs for emergency response and reconstruction—and with the challenge of financing these costs.

Establishing an appropriate set of disaster risk finance (DRF) instruments can support the government of Lao PDR in financing post-disaster expenditures effectively and efficiently. Being better prepared to pay for the cost of disasters is crucial for building the financial resilience of Lao PDR and minimizing the negative impact of disasters on economic growth. The government has sought to increase the overall financing for disaster-related expenditures by establishing funds, including the State Reserve Fund, which was established in November 2013. These funds receive domestic sources of finance, mainly through annual state budget allocations, and can be accessed in the event of an emergency.

This Disaster Risk Finance Country Note for Lao PDR provides a review of the current system of public financial management of disasters. It provides an overview of

existing DRF instruments that describes their current status, as well as budget mobilization procedures used following a disaster and processes for budget execution and resource allocation. This note has been developed based on a desk review of existing literature, including reports and government legislation and regulations, and on consultations with stakeholders, including government departments and international organizations. Based on the findings, options are proposed for consideration to further strengthen financial resilience as part of a comprehensive DRF program. Sections 2 and 3 provide background on the Lao PDR context, including (respectively) the economic impact of disasters and an overview of DRF institutional arrangements. Section 4 provides a review of the public financial management of disasters in Lao PDR, including ex ante and ex post DRF instruments currently in use for budget mobilization and budget execution. Section 5 briefly explains the domestic disaster risk insurance market in Lao PDR, and section 6 explains the short-term funding gap faced by the government. The options for consideration are presented in section 7.

2. Economic and Fiscal Impact of Natural Disasters

2.1. Economic impact: Statistical analysis of historical losses

Lao PDR, a country of 6.77 million with a total land area of 236,800 square kilometers, has experienced strong economic growth in recent years. After rapid economic growth in the past decades, the country has reached lower-middle income status with a gross national income (GNI) of US\$1,730 in 2015.³ With an average annual growth rate of 8 percent between 2005 and 2015, the increase in Gross Domestic Product (GDP) is projected to remain around 7 percent over the next three years, driven by electricity generation and exports as well as services, construction and manufacturing.⁴ While growth has traditionally been reliant on natural endowments, more recently, services expanded, including retail, tourism and transport. Public debt increased to nearly 70 percent of GDP, a high level for a country at Lao PDR's level of development.

Poverty in Lao PDR has declined in recent years, but it remains relatively high with development benefits not equitably shared among the population. Absolute poverty declined from 33.5 percent in 2002/2003 to 23.2 percent in 2012/2013, lifting half a million people out of poverty. However, inequality widened with the Gini coefficient increasing from 32.5 in 2002/03 to 36.2 in 2012/13, and the

pace of poverty reduction and growth in consumption is modest by international standards.⁵ Moreover, many people remain close to the poverty line: data from 2013 shows about 80 percent of the population still lives on less than US\$2.5 per day and face a 10 percent chance of falling back into poverty⁶, particularly in the event of a shock.

Rural vulnerability to natural hazards in Lao PDR is a particular concern, as approximately 62 percent of the population resides in rural areas and is largely dependent on subsistence agriculture production. This segment of the population is increasingly subject to frequent floods and droughts and is highly vulnerable to the impact of natural disasters on the agricultural sector. Inadequate social protection systems also contribute to the vulnerability of the rural population. After the transport sector, the agriculture sector is typically the sector most affected by disasters. The damage and loss in the agriculture sector from Typhoon Haima in 2011 was estimated to be US\$15.51 million (Government of Lao PDR [GoL] et al. 2011c), equal to 24 percent of the total damage and loss recorded. High hazard exposure coupled with low levels of productivity and growth in the agricultural sector threatens the livelihood security of thousands of smallholder farmers in the country.

3. World Bank. 2016. *Economic Update. East Asia and the Pacific. Growing Challenges*. April.

4. World Bank. Forthcoming. Lao PDR Systematic Country Diagnostic. Note: World Bank. 2016. *Economic Update. East Asia and the Pacific. Growing Challenges* indicated GNI of US\$1,805.

5. World Bank. Forthcoming. Lao PDR Systematic Country Diagnostic.

6. World Bank. 2015. *Drivers of Poverty Reduction in Lao PDR. Lao PDR Poverty Policy Notes*. October.

The impact of floods and droughts is a major concern for Lao PDR: an average of 200,000 people per year were affected by floods over the period 1991–2013.⁷ The majority of floods in Lao PDR occur during the rainy season, between the months of May and October. These events cause loss of life, threaten livelihoods, damage agricultural production, and reduce economic growth. The estimated 2 million people with incomes below the national poverty line are particularly vulnerable to the impact of floods and other natural disasters.

Using modeled flood damages, the World Bank estimates that annual expected losses for Lao PDR range between 2.8 percent and 3.6 percent of GDP. Expected economic losses from a high-impact event (one with a 100-year return period) are 11.7 percent of GDP, based on analysis using historical loss data from the EM-DAT database (World Bank and GFDRR 2012). This high value—the highest relative to GDP in the Association of Southeast Asian Nations (ASEAN) region⁸—is mainly due to a large share of the rural population being vulnerable to extreme hazard events, and to the population’s high degree of vulnerability relative to the size of the Lao PDR economy.

Table 1 provides summary figures for the number of people affected by and total damage from recent major disasters in Lao PDR.

Table 1. Number of people affected and total damage caused by major disasters in Lao PDR, by disaster type (1991–2013)

Disaster type	Time period	Number of events	Total number of people affected	Total damage (US thousand)
Drought	1991–1999	2	20,000	1,000
Flood	1991–2013	11	3,831,993	462,828
Storm	1991–2009	5	1,487,312	405,951

Source: EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be.
Note: Data are unscaled [not adjusted for GDP growth or population growth]

7. D. Guha-Sapir, R. Below, and Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be.

8. The loss risk assessment methodology used for this analysis is based on a combination of reported historical and simulated disaster losses. There may be some caveats to this analysis, including the accuracy of the underlying data set.

For this note, the World Bank team did not review existing modeled catastrophe risk loss data.

2.2. Fiscal impact

The large impacts of disasters in Lao PDR result in significant costs for the government and population; the estimated average annual fiscal cost of floods is 2.7 percent of government expenditures. In years of severe events (as shown in table 2), the damage and loss from disasters can be as high as 9 percent of budget expenditures. Given the large costs of disasters, the government regularly struggles to secure adequate and timely funding for emergency relief, early recovery, and reconstruction expenditures.

2.2.1. Contingent Liability

The government pays a significant portion of post-disaster response costs, and these expenditures can be seen as a contingent liability—that is, as an obligation that may or may not come due, depending on whether particular events occur. (This is in contrast to a direct liability, which is an obligation whose outcome is predictable.) Contingent liabilities may be either explicit or implicit, as explained below.

Explicit contingent liability

Explicit contingent liabilities are specific obligations created by law or contract that governments must settle. They legally oblige government to make payments if particular events occur—e.g., a natural disaster event. Because their fiscal cost is invisible until they come due, they represent a hidden subsidy and a drain on future government finances, and hence complicate fiscal analysis. Two common explicit contingent liabilities, reconstruction of public assets and social protection, are discussed below.

Reconstruction of public assets could be the responsibility of either a national/central government or subnational governments, depending on ownership of assets and any government commitments to support post-disaster rehabilitation costs. Insurance of public assets can help reduce the contingent liability by exchanging uncertain future large payments for smaller, up-front premium payments that can be budgeted.

The World Bank has been able to obtain only limited information on the total exposure of public assets in Lao PDR, and information available to the government is also likely incomplete. As a proxy measurement of damage to public assets, however, it is possible to use estimates of the damages to assets from recent events, including Typhoon Ketsana in September 2009, Typhoon Haima in June 2011, Tropical Storm Nok in August 2011, and floods in 2013.

- Typhoon Ketsana struck five provinces in the south of Lao PDR, resulting in the worst flooding in the region in 50 years and affecting over 180,000 people (23 percent of the population in the affected provinces). The floodwaters destroyed or damaged property, crops, and public assets (including schools, hospitals, roads, bridges, and irrigation and aquaculture infrastructure), with total damage and loss estimated at US\$58 million (GoL 2009). With support from the international community, the government launched a significant response and recovery operation following the disaster.
- Typhoon Haima caused severe flooding in five central and northern provinces, affecting approximately 87,000 people. Damage and loss were estimated at US\$66.3 million (GoL 2011c). The transport sector suffered the most extensive damage, accounting for 56 percent of the total, and the agricultural sector also suffered heavy losses (24 percent of the total damage).
- Floods from Tropical Storm Nok Ten affected approximately 348,000 people in three southern provinces, with damages estimated at over US\$100 million (MPI et al. 2014).
- A series of severe floods in 2013 affected 12 of the country's 17 provinces. According to a report to the National Assembly, approximately 350,000 people were affected, with total damage and loss estimated at LAK 2.2 trillion (US\$270 million) (MPI et al. 2014).

Table 2 provides an overview of these recent major events.

Table 2. Overview of major disasters in Lao PDR (2009–2013)

	Typhoon Ketsana [2009]	Typhoon Haima/ Tropical Storm Nok Ten [2011]	Various floods [2013]
Number of severely affected provinces	4	8	12
Population affected	180,000	421,000	350,000
Number of fatalities	28	30	29
Number of houses damaged/destroyed	6,168	892	1,700
Agricultural land/crops affected [ha]	36,000	111,000	47,000
National roads damaged/destroyed [km]	67	323	867
Number of irrigation systems damaged	130	534	212
Number of schools damaged/destroyed	73	256	n/a
Estimated overall damage and loss, from post-disaster needs assessment [US\$]	58 million	170 million	270 million
Estimated damage and loss as a percentage of GDP in the same year	1.0%	2.1%	2.5%
Estimated damage and loss as percentage of government expenditure in the same year	4.8%	9.1%	8.9%
Joint post-disaster needs assessment conducted [Y/N]	Yes	Yes	No

Source: MPI et al. 2014; and post-disaster needs assessments for events listed.

In addition to reconstruction of public assets, social protection systems represent a significant explicit contingent liability for government. Because the high impact of disasters on the poorest can have long-lasting consequences for human development, quick post-shock assistance to poor and vulnerable households is essential to protecting their welfare. Scalable social protection helps governments strengthen the resilience of these households to the debilitating effects of natural disasters. Risk financing mechanisms can work together with established social protection systems to rapidly reach the poorest and most vulnerable following disaster shocks. Existing social protection systems in Lao PDR can be reviewed to determine if they are suitable mechanisms for transferring cash to affected populations after a disaster as a means of minimizing the negative impact on welfare.

The Lao PDR government has an established Social Welfare Fund that is managed by the Social Welfare Department under the Ministry of Labour and Social Welfare (MLSW). Further details on this fund are included in section 4.2.2.

Implicit contingent liability

Implicit contingent liabilities represent moral obligations or burdens that, although not legally binding, are likely to be borne by governments because of public expectations or political pressures. Implicit contingent liabilities are

hard to identify and quantify as there is no clearly defined obligation on the government, but instead they have to be estimated from past events.

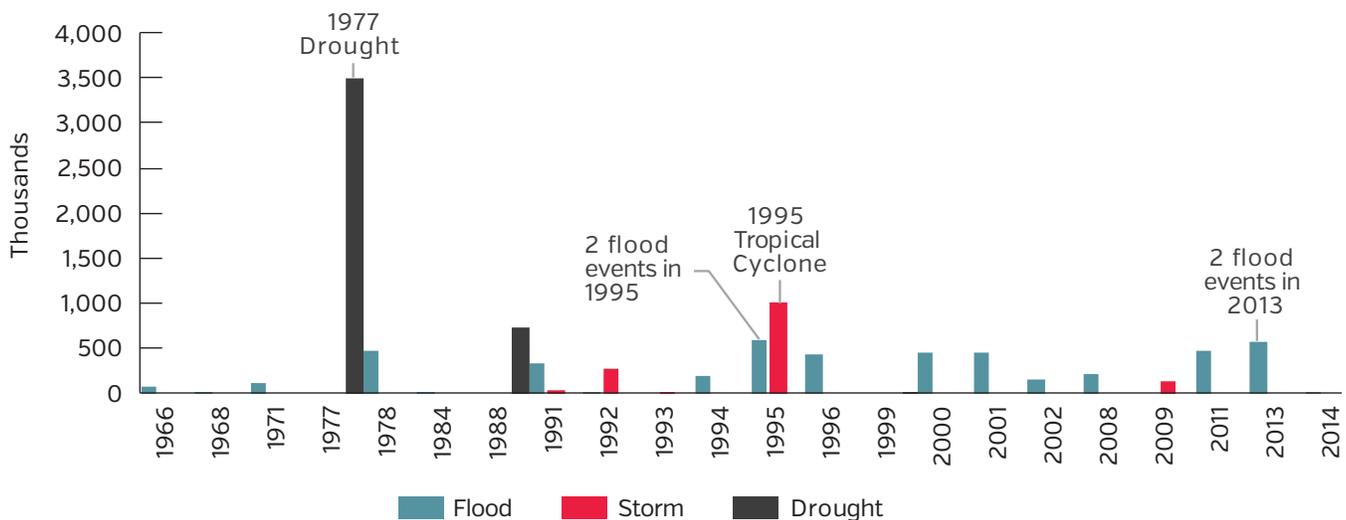
Immediately following a disaster and continuing into the first months, governments often incur costs for response and recovery. For example, the government may pay for emergency response such as search and rescue, emergency shelter, or food assistance. While a government usually has clear budget allocations for emergency services, the total expenditures incurred for all but small localized disasters usually far exceed these funds set aside.

In the longer term, the government often ends up shouldering a significant burden of larger post-disaster reconstruction costs. For example, the government may pay for reconstruction of houses damaged and destroyed by a disaster.

2.2.2. Quantitative analysis

An analysis of historical data from EMDAT, which was undertaken to better understand Lao PDR’s short-term emergency and early response and recovery needs, showed that 20 floods, 5 storms, and 3 droughts impacted the population of Lao PDR during the period 1966–2014 (see figure 1). Floods were by far the most frequent event, affecting over half a million people in 2013 alone.

Figure 1. Number of people affected annually by natural disasters in Lao PDR (1966–2014)

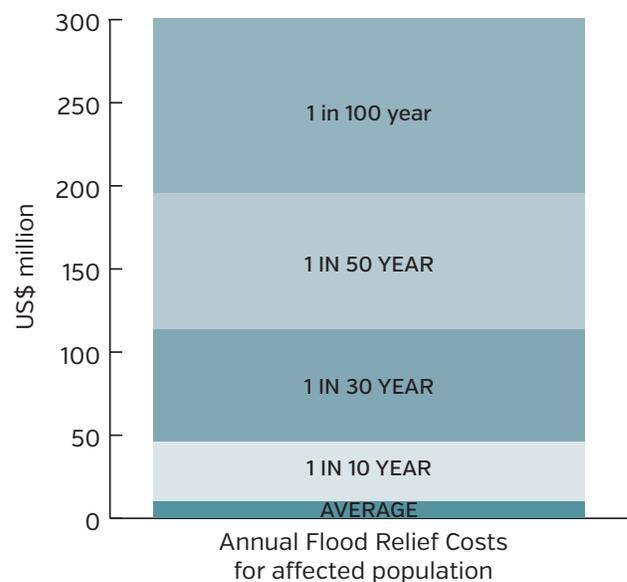


Source: D. Guha-Sapir, R. Below, and Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be.
 Note: Data are unscaled.



A preliminary analysis of historical data was undertaken to estimate emergency flood-response costs that the government could have to meet. The analysis looks at the number of people affected by floods historically and assumes that (i) all affected people receive emergency relief, and (ii) the total emergency response cost is US\$80 per person (this is an initial estimate and will be further discussed with the government). Figure 2 shows that under these assumptions, the government of Lao PDR could face emergency response costs of US\$10 million every year. The probability that the annual cost of emergency response could exceed US\$67 million is 3.3 percent (that is, the cost could be exceeded on average once every 30 years).⁹

Figure 2. Estimated emergency response and recovery needs related to flood events in Lao PDR



9. This preliminary assessment of emergency response/recovery needs is based on historical data for the total number of people affected by flood events since 1966 as reported in the EM-DAT database. While history is a good starting point for understanding the future, patterns do not always remain the same, so the emergency response/recovery needs estimated here should be interpreted with some caution.

Source: World Bank with data from EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, www.emdat.be.

3. Legal and Institutional Arrangements for Disaster Risk Management and Finance

3.1. Legal framework guiding disaster risk management and finance

3.1.1. National law

Lao PDR has no overarching legal framework for disaster risk management that defines the responsibilities of different stakeholders and the processes relevant to disaster preparedness or emergency response and recovery; for example, there is no process for declaring a state of emergency. Table 3 provides a timeline of the evolving disaster risk management governance arrangements,

including the establishment of key disaster risk management and financing institutions.

The Department for Disaster Management and Climate Change (DDMCC) under the Ministry of Natural Resources and Environment (MoNRE) acts as the secretariat to the National Disaster Prevention and Control Committee (NDPCC). DDMCC was appointed as the secretariat to NDPCC in accordance with Prime Minister (PM) Decree Number 220, replacing the National Disaster Management Office (NDMO) under MLSW. This internal government restructuring is viewed as important for improving coordination across line agencies and subnational offices involved in disaster risk management. However, the operations of DDMCC are currently limited due to the

Table 3. Timeline for development of disaster risk management and financing institutions

1997	1999	Oct. 2011	Aug. 2013	Nov. 2013
National Disaster Management Office established under MLSW, with support from United Nations Development Programme.	NDMC established (under PM Decree 158), with NDMO acting as secretariat. The NDMC was tasked with coordinating early warning, preparedness, emergency response, and recovery activities.	NDPCC formally replaces NDMC as the executive body for coordinating disaster risk management and recovery efforts at the national level (under PM Decree 373).	DDMCC under MoNRE appointed as the new secretariat to the NDPCC, replacing NDMO.	Decree for State Reserves signed by the prime minister, establishing the State Reserve Fund. Fund is managed by the State Reserve Department.

Source: Lao PDR government.

Note: NDMC = National Disaster Management Committee.

relatively recent establishment of the department, and to the lack of a legal framework, implementation guidelines, and resources for the department. This situation also has implications for disaster risk management coordination. In the interim, the former NDMO is providing limited support to DDMCC.

A Climate Change and Disaster Management Law is currently being developed with expected approval in 2017. One important aspect of the law is that it addresses the process for formally declaring a disaster. Currently, there is no legal process for the declaration of a disaster or state of emergency, which poses a problem when the government needs to mobilize international relief following a disaster. Under the current informal process, a notice of disaster is issued by the chairman or vice chairman of NDPCC to related ministries, based on initial reports and information gathered from local authorities and from District Disaster Prevention and Control Committees (DDPCCs) and Provincial Disaster Prevention and Control Committees (PDPCCs) in the affected area. The formal declaration of disaster process to be considered in the new law may act as a trigger mechanism for access to disaster-related reserve funds and receipt of donor support.

3.1.2. Budget Law

The current legal framework for DRF is based on provisions in the State Budget Law for budget allocation to the State Reserve Fund and National Contingency Fund, both of which are used for disaster expenditures (as discussed in section 4.2). The drafting of the Disaster Management and Climate Change Law provides an opportunity to establish a more detailed legal framework for DRF within the new law.

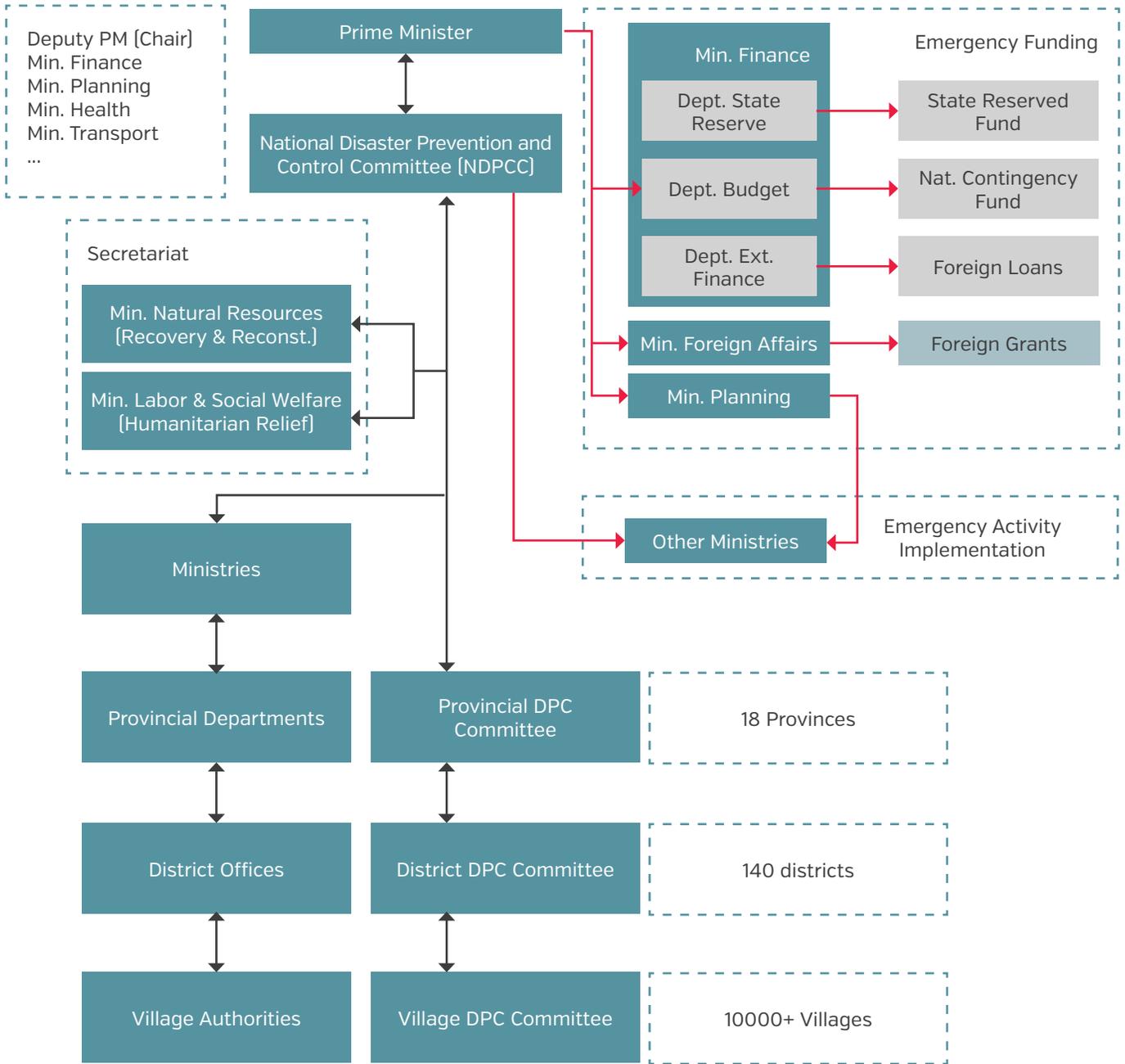
Provisions in the State Budget Law for budget allocations to the State Reserve Fund and National Contingency Fund help to ensure sustainable sources of funds for disaster-related expenditure. However, with a number of funds placing high demands on the state budget, the government has had difficulty fully meeting the targeted fund allocations to date, and this difficulty may continue over the medium term. Given the current deficit budget, the government is conscious of the opportunity cost of diverting funds away from immediate expenditure priorities and into disaster reserve fund accounts.

Disaster response planning and financing is coordinated by the Ministry of Planning and Investment (MPI) and the Ministry of Finance (MoF) with line agencies. Based on the Decree on Social Welfare No. 169 (June 19, 2013), the Social Welfare Department under MLSW is responsible for providing emergency relief assistance to those affected by a disaster. For rehabilitation and reconstruction of public assets following disasters, sector ministries responsible for those assets (e.g., Ministry of Public Works and Transport, Ministry of Agriculture and Forestry) are responsible for preparing reconstruction and recovery plans. These plans are based on the detailed assessment conducted following a disaster (at the instruction of NDPCC) and are submitted to MPI, which coordinates the overall recovery plan and sources of financing with MoF.

3.2. Institutional setup for disaster risk management and financing

The NDPCC is the executive body responsible for coordinating disaster risk management and recovery efforts at the national level (PM Decree 373). At the subnational level, these efforts are coordinated by the Village Disaster Prevention and Control Committees, the DDPCCs, and the PDPCCs. The NDPCC formally replaced the National Disaster Management Committee in October 2011. The revised NDPCC structure includes the appointment of more senior (i.e., minister-level) members to improve convening and coordination issues, including coordination of such key areas as early warning, preparedness, emergency response and relief, and reconstruction. Under the new structure, the deputy prime minister or minister of defense acts as chair, and is now able to convene ministers across the various line agencies and mobilize military resources during response efforts. Ministers from MoNRE, MLSW, Ministry of Agriculture and Forestry, and Ministry of Public Works and Transport (MPWT) act as vice chairs. Figure 3 illustrates the institutional arrangement for disaster risk management and financing in Lao PDR.

Figure 3. Institutional structure for disaster risk management and financing in Lao PDR



LEGEND

— Reporting/Coordination

— Emergency Response

4. Public Financial Management of Natural Disasters

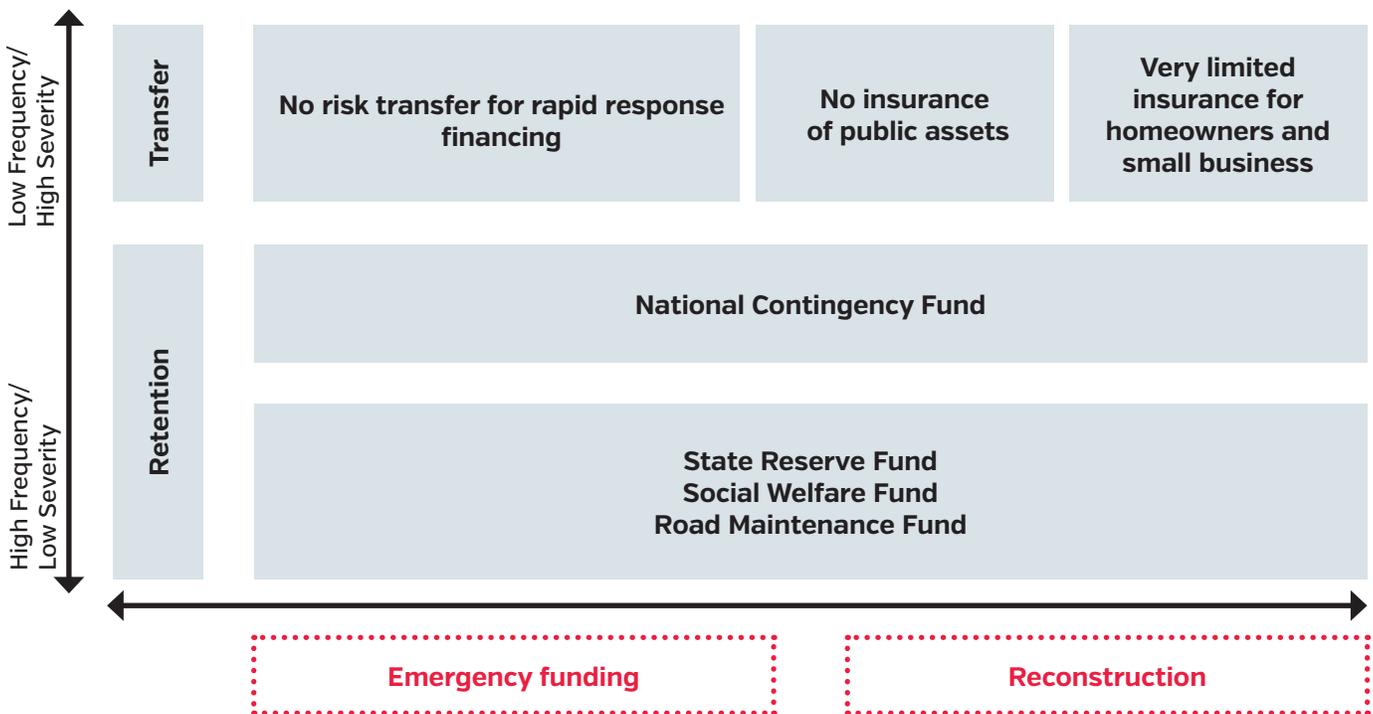
4.1. Risk-layering approach

International experience has shown that governments ideally combine different instruments to protect against events of different frequency and severity. Such *risk-layering* ensures that cheaper sources of money are used first, with the most expensive instruments used only in exceptional circumstances. Figure 4 shows the risk-layering approach currently available to the Lao PDR government; more detail on risk layering in general is in annex 1.

The ability of the government to rapidly mobilize budget for effective response in the event of a disaster largely depends on the financial instruments the government currently has in place. Sections 4.2 and 4.3 review ex ante and ex post financial instruments currently available in Lao PDR for budget mobilization as well as budget execution procedures.

Lao PDR does not currently have an overarching strategy or policy to manage the financial impact of natural disasters. The government currently has insufficient funding arrangements in place for major disaster events; the costs of

Figure 4. Three-tiered risk-layering strategy available to the Lao PDR government



previous disasters have outweighed the resources allocated for disaster-related expenditures from contingency budgets and disaster funds. The government has still not financed all expenditures from previous years, even as additional costs from disasters are incurred every year. As a result, the government, households, and businesses end up paying for most of the damages to their respective assets. Households bear the cost when essential services are not restored and compensation is not provided for damaged private assets and lost agricultural output. When businesses do not get paid for the services they provide, such as urgent infrastructure repair work, they must absorb the cost.

The government has relied heavily on annual contingency budget allocations to finance post-disaster expenditure

in previous years. If disaster costs exceed the value of the contingency funds, the government generally has to rely on donor grants, which can be highly uncertain. To avoid this dependence on uncertain donor funding, the government established the State Reserve Fund in November 2013 to help finance the cost of disasters. The fund is in the process of being operationalized.

Table 4 gives a summary estimate of total resources available to the national government for disaster financing, by source of funds and type of instrument. The current focus of the government's DRF tools is on reserve funds and contingency budgets, meaning that the government still remains financially exposed to less frequent but high-impact catastrophic events.

Table 4. Type and amount of funds available for disaster response

Disaster risk	Financing source available	Amount of funds potentially available
High-risk layer (e.g., major floods, major typhoons)	Donor assistance	Unpredictable and unreliable; e.g., 2010 total commitment of US\$10 million (often in kind)
	Tax policy	Not currently used
	Sovereign risk transfer solutions	Not currently used
	External debt	Unclear
Medium-risk layer (e.g., regional floods)	Contingent credit	Not currently available
Low-risk layer (e.g. localized floods, landslides)	Budget reallocation	Unclear
	Contingency budget	<i>National Contingency Fund</i> : LAK 100 billion (US\$12 million) [reserved for disasters]
	Reserve funds	<i>State Reserve Fund</i> : LAK 300 billion (US\$37 million) actual allocation in state budget for FY2014/15; LAK 130 billion (US\$16 million) actual transfer to the fund account <i>Social Welfare Fund</i> : LAK 500 million (US\$62,000) in FY2014/15 <i>Road Maintenance Fund</i> : approx. LAK 40 billion (US\$5 million) available for disaster recovery for roads

Source: World Bank based on discussions with Lao PDR government.

4.2. Ex ante disaster risk financing tools

Ex ante instruments are sources of finance established by the government in advance that can be quickly disbursed following an event to support critical relief and response work. In the case of Lao PDR, this includes budget allocations (regular recurrent or contingency budgets) and reserve funds. These types of instruments ensure that the government has access to some funding during a disaster. The majority of the financial instruments that Lao PDR currently operates for financing the cost of disasters are ex ante reserve funds and budget allocations.

The total value of the funds currently available for disaster risk financing at the national level, including contingency funds at the provincial level, equates to LAK 400.5 billion (US\$49 million). This consists largely of the State Reserve Fund (LAK 300 billion), the National Contingency Fund (LAK 100 billion), and the Social Welfare Fund (LAK 0.5

billion). It excludes the Road Maintenance Fund, part of which may be used for repair of roads damaged by disasters (an estimated 10 percent of the fund), and excludes separate provincial funds.

The scope of use for existing funds for disaster-related expenditures is found to be wide-ranging within funds, and there are several areas of overlap across funds. Table 5 compares funds based on disaster expenditure types (i.e., preparedness, emergency relief, and reconstruction).

Almost all of the current funds finance disaster relief and response as part of their mandated use; at least two funds simultaneously finance risk reduction and preparedness activities; and at least three funds currently finance rehabilitation and reconstruction expenses. Hence, the government could mobilize budget more efficiently if it consolidated one or more funds with similar uses and funding sources (e.g., consolidating under the State Reserve Fund).

Table 5. Comparison of the scope of use of funds for disaster-related expenditure

Name of Fund (responsible agency)	Preparedness	Relief and response	Rehabilitation and reconstruction	Available funding (LAK billion)
National Contingency Fund (Budget Department, MoF)		✓	✓	100
State Reserve Fund (SRD, MoF)	✓	✓	✓	300
Disaster Management Fund (DDMCC, MoNRE)	✓	✓		0
Social Welfare Fund (MLSW)		✓		0.5
Road Maintenance Fund (MPWT)			✓	400 [approx. 10% for disaster use]
Provincial Emergency Fund (e.g., Salavan Province)		✓		0.1

Note: SRD = State Reserve Department.

4.2.1. Contingency budget

Prior to the establishment of the State Reserve Fund in 2013, Lao PDR relied on the **National Contingency Fund** as a main source of disaster risk financing. The National Contingency Fund is operated by the Budget Department under MoF. It currently receives an allocation of LAK 100 billion (US\$12.3 million) per year from the state budget as a budget item. This allocation applies to disaster-related expenditure only, and the allocation does not accumulate. From this total allocation, approximately LAK 23 billion (US\$2.8 million) is allocated to provincial governments and LAK 77 billion (US\$9.5 million) is allocated to the national government. Most of the National Contingency Fund (approximately 85 percent) has been used for reconstruction expenditures, while a smaller proportion (approximately 15 percent) has gone to emergency relief expenditures. The government budget also includes a separate contingency fund of similar value for unplanned non-disaster expenditures.

The **Budget Department** is also responsible for allocating budget to the other funds for disaster-related expenditures under the annual state budget preparation process. The state budget is approved by the National Assembly (as stated in the 2006 Law on State Budget).

4.2.2. Reserve funds [Can accumulate across multiple years]

Among the funds established by the Lao PDR government that may be accessed to finance disaster-related expenditures, some are dedicated to post-disaster uses, while others also cover uses not related to disasters. Many of these funds have been established relatively recently, following the extensive damage from flood events in 2009, 2011, and 2013. These funds are managed either by different government departments, with allocations largely from the state budget, or by other sources, such as the private sector or international organizations.

Establishing dedicated reserve funds for disaster response and recovery provides some certainty that financial resources will be available to the government immediately following a disaster. The use of reserve funds as a financial instrument is generally recommended for high-frequency minor-impact events. The reserve funds and budgets

available for disaster response in Lao PDR are described below; annex 3 summarizes the funds and compares their key parameters.

The **State Reserve Fund** was established by the government in November 2013 under PM Decree No. 291, to be used for both disaster and non-disaster emergency needs. The fund is administered by the State Reserve Department, established under MoF in September 2012. The department is responsible for coordinating and processing requests for funding for disaster-related expenditures. It consists of a cash component (60 percent of the total value) and goods and materials component (40 percent), which includes rice, crop seeds, fuel, medical supplies, and rescue equipment. The fund is currently under development, and standard operating procedures are being formulated for use by the State Reserve Department in operating the fund. These operating guidelines will help to ensure allocated funding is made available for disaster-related expenditures and promote timely mobilization of funds.

Disaster-related use of the fund includes preparedness, emergency relief, and rehabilitation and reconstruction expenditures. Non-disaster-related uses of the fund include ensuring national security and maintaining economic stability. According to the Decree on State Reserves, the State Reserve Fund has a target allocation of 3 percent of the annual state budget expenditure, which was equivalent to LAK 900 billion (US\$111 million) in FY2014/15. The Law on State Budget (2006), which the Decree on State Reserves is established under, provides for an annual allocation to the State Reserve Fund from the state budget. The value of the fund can accumulate from one fiscal year to the next if not all resources are spent. Expenditures from the fund are to be made according to requests from line agencies, and approved according to the fund's scope of use. All expenditures from the fund must be approved by the prime minister. In most cases, expenditures are to be channeled from the fund directly to suppliers of goods, works, and services.

In the FY2014/15 state budget, the National Assembly approved an allocation of LAK 300 billion (US\$37 million) for the State Reserve Fund, which is equivalent to 1 percent of total planned budget expenditure (i.e., below the target of 3 percent). A similar annual budget allocation is also expected over the medium term. However, only LAK 130

billion (US\$16 million) was actually transferred to the fund account in FY2014/15. No expenditures from the fund have yet been reported, although purchase of rice is planned for goods reserve storage. There is a need to ensure that the fund continues to receive transfers equivalent to its budget allocation, so it can be operated effectively and make payments for disaster-related costs. The lower-than-planned release of budget to the State Reserve Fund is partly due to constraints in the state budget.

The **Disaster Management Fund** was initially developed by the former National Disaster Management Office under the MLSW. Management of the fund was transferred to DDMCC under the Ministry of Natural Resources and Environment for further development when DDMCC was appointed as the new secretariat to the National Disaster Prevention and Control Committee in August 2013. This fund is not currently active, pending finalization and approval of the draft Decree on the Disaster Management Fund. Note that development of the draft decree by DDMCC has been on hold since the establishment of the State Reserve Fund, and it is not clear when the draft decree may be developed further.

Once operational, the fund will receive an annual allocation from the state budget. As stipulated by the draft decree, it will also accept donations by individuals and national and international organizations, as well as contributions from public investment projects. The use of the fund will be primarily for investing in disaster risk reduction and disaster prevention activities. According to the draft decree, the scope of use of the fund includes dissemination of strategies, plans, and laws in relation to disaster risk reduction, assistance to victims of disaster, preparation for and prevention of disasters, data collection for assessing disasters, and restoration of infrastructure. The Disaster Management Fund under preparation and the State Reserve Fund both have sources of funds from the state budget and overlapping scope of use. Given these similarities, there may be potential efficiency gains from consolidating the two funds, including reduced administrative and monitoring costs.

The **Social Welfare Fund** has been established according to the PM Decree on Social Welfare No. 169 (June 2013), and is managed by the Social Welfare Department under MLSW. A separate decree for the Social Welfare Fund has also been drafted (at the time of writing). It is a relatively

small-value fund; the state budget allocated approximately LAK 800 million (US\$100,000) for the fund in FY2013/14, and approximately LAK 500 million (US\$62,000) in FY2014/15. The fund's scope of use covers emergency response assistance for victims of natural disasters (e.g., floods, fires, crop damage caused by insects, droughts). The fund can also be used for the non-disaster-related purpose of providing social welfare assistance to low-income or disadvantaged households or individuals. Assistance from the fund is mostly provided in the form of goods (e.g., bags of rice, ceramic roof materials, clothing, drinking water) for households.

Anecdotal evidence suggests that it can take two to three months for beneficiaries in villages to receive goods from the fund. Requests to the fund are made from reports prepared at the district level by the District Office for Labour and Social Welfare, submitted to the provincial office, and then submitted to central MLSW. The value of the goods is evaluated, and cash is transferred to the province. Provincial Departments of Labour and Social Welfare are then responsible for the purchase and distribution of goods.

Funds were disbursed from the Social Welfare Fund in response to a storm in Vientiane (week of February 16, 2015), considered a small-scale disaster with an estimated damage of LAK 10 billion (US\$1.2 million). A week after the storm, LAK 50 million (US\$6,200) was disbursed from the Social Welfare Fund. An additional LAK 40 million (US\$5,000) was provided from the governor of Vientiane Capital at the same time.

The **Road Maintenance Fund** is managed by the Ministry for Public Works and Transport. A revised decree for the fund is currently under development and provides the sources of revenue to the fund. The fund has a total budget of approximately LAK 400 billion (US\$50 million) per year collected from fuel sales tax revenue, international transit fees, overloaded-truck penalties, vehicle registration fees, and other public or private contributions. According to the draft decree, in each fiscal year 88 percent of the fund is to be used to finance road maintenance (68 percent for national roads and 20 percent for local roads), including regular renovation and emergency or urgent road repair work. Ten percent of the fund is to be used for road safety activities, and 2 percent for management costs.

The fund can be used in part to finance rehabilitation and reconstruction of roads following a disaster, and approximately 10 percent of the total Road Maintenance Fund is expected to be used for this purpose. Budget is allocated from the fund during the year based on the decision of the fund management committee, as agreed by the committee chair. Roads in need of repair will be ranked by priority according to the proposal of the Department of Roads under MPWT.

The availability of **provincial funds** varies between provinces. Provincial governors can establish provincial funds through official notification from the governor's office, meaning that these funds are not necessarily based on existing laws or decrees. Funds have been established by a few provincial governments, generally in provinces that were severely affected by floods between 2009 and 2013. The majority of provincial funds are used for emergency relief and response activities. Two examples of provincial funds are described below.

- **Xayabouly Province (Central region).** The provincial governor issued Notification No. 941/PG Xayabouly in May 2006 regarding establishment of the Emergency Relief Fund. The fund is meant to provide aid for disaster victims in the province, including where homes have been damaged or destroyed, family deaths have occurred, or agricultural losses have exceeded 70 percent. Contributions to this fund are derived from private sources, including (i) a mandatory contribution from government and military staff of LAK 5,000 (US\$0.62) per person per year; (ii) a mandatory contribution from villagers of LAK 3,000 (US\$0.37) per household per year, through village offices; and (iii) a donation from the private sector and development partners through PDPCC. The fund is managed by the Provincial Department of Labour and Social Welfare. Unused contributions accumulate in the fund.
- **Salavan Province (Southern region).** Salavan Province has established five provincial funds for disaster relief and response, most of them after Salavan was severely affected by Typhoon Ketsana. Among them is the Provincial Emergency Fund, established in 2013 and modeled on the Xayabouly provincial fund, with similar sources of funding (i.e., mandatory contributions from village residents and government employees in

the form of an additional tax). The value of this fund is approximately LAK 100 million (US\$12,300), and the deputy governor signs off on the use of funds. The other established funds in the province include the Provincial Disaster Fund, funded by private sector donations and timber sales; the Rice Fund, financed by the community and used to purchase rice stores; the Provincial Contingency Fund, managed by the provincial Department of Finance with a value of 1.59 percent of the provincial expenditure budget; and the Rollover Fund, consisting of surplus provincial contingency budget.

4.2.3. Contingent credit

Lao PDR does not currently have a contingent credit facility available for accessing additional funds in the event of a disaster. This tool, which is offered for disaster recovery and reconstruction purposes by international partners (such as the World Bank and JICA) as well as private creditors, facilitates more rapid access to potentially significant financing sources. Contingent credit can act as a bridge funding facility for post-disaster rapid recovery to suit a country's specific budgetary needs. The facility can be accessed with triggers set by the government (e.g., declaration of disaster) to allow the government to rapidly access short-term liquidity as a loan following a disaster (especially when a disaster occurs at the end of budget revision cycle). The World Bank's contingent credit line, the Catastrophe Deferred Drawdown Option (Cat DDO), will become available to low-income countries, including Lao PDR, in July 2017.

4.2.4. Sovereign risk transfer solutions

Lao PDR does not currently use sovereign catastrophe risk transfer solutions, which provide rapid post-disaster financing. It does not utilize budget insurance instruments to protect against sovereign risks. The Insurance Law that was passed in 1990 (and is based on the French model) does not contain any specific provisions for catastrophe risk insurance. Nor does the government currently insure public assets (other than vehicles); where there is private sector involvement (e.g., hydropower or mining), the private sector is responsible for those assets.

4.3. Ex post disaster risk financing tools

Ex post financial instruments are sources of finance that are identified or become available during or following a disaster. How much financing can be raised through ex post financing instruments is highly uncertain and unpredictable, and accessing this finance may involve significant delays. However, these instruments do provide significant levels of financing following major events.

The section below discusses ex post disaster risk financing tools, both those used in Lao PDR (donor assistance for relief and response; external public debt, most of which is financed by long-term project loans from international organizations) and those not currently used (budget reallocation, tax policy).

4.3.1. Budget reallocation

The implementation of the state budget during the fiscal year follows the planned budget allocations very closely, and no budget reallocations have taken place following disasters, as reported by the Budget Department. The Budget Department under MoF is responsible for coordinating the state budget plan and for any budget reallocations. Post-disaster budget reallocations can result in significant opportunity costs from foregone planned expenditures and can derail progress toward national and sector development goals and objectives. Budget reallocations can also create uncertainty over annual resources available for government agencies as set out in the state budget. The International Development Association (IDA) Immediate Response Mechanism serves as a reallocation mechanism for World Bank project funds in IDA countries; it allows recipient countries to rapidly access up to 5 percent of the undisbursed and uncommitted IDA lending portfolio to pay for post-disaster early recovery activities. Lao PDR is in the process of developing an operations manual to govern the use of IDA Immediate Response Mechanism funds.

4.3.2. External debt

Public debt increased to nearly 70 percent of GDP, a high level for a country at Lao PDR's level of development. Thus the current high level of external public debt to GDP may in the medium term restrict additional borrowing to finance the cost of disasters.

4.3.3. Tax policy

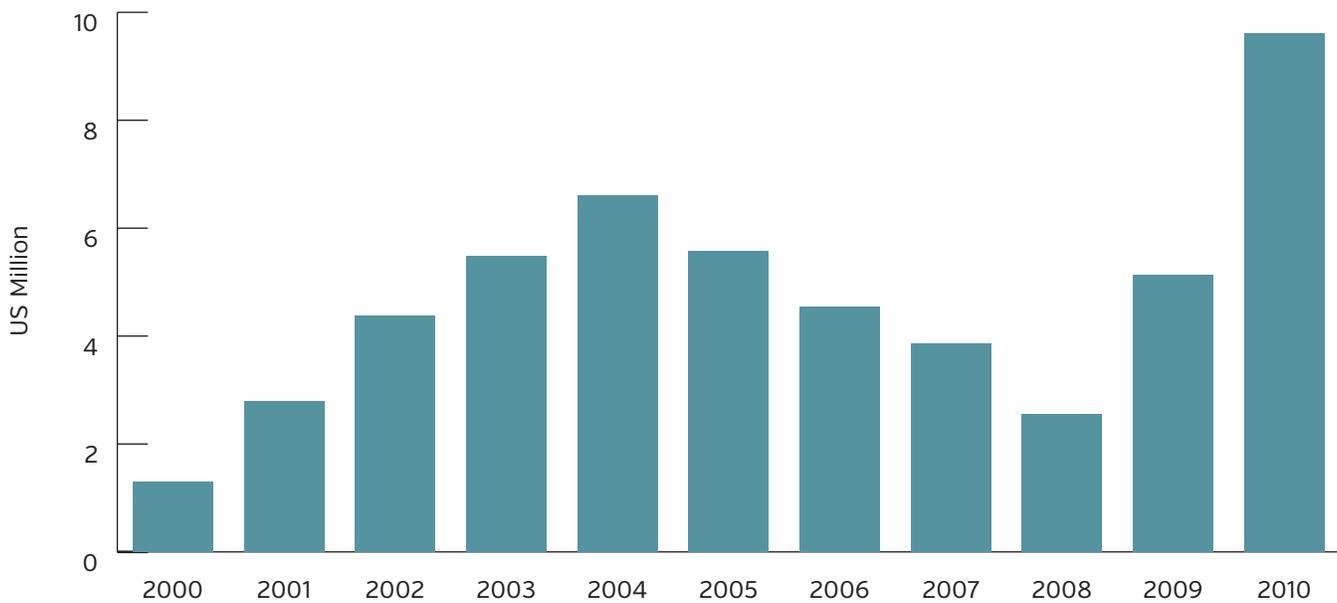
There has been no reported use of tax policy in Lao PDR as an instrument to raise additional revenue following disasters, or to offer tax deductions as incentives for donations, to assist with financing the cost of disasters. The feasibility of using tax policy as an instrument to raise ex post disaster financing depends on the current strength of the tax base and tax compliance levels. While there is no reported use of tax policy to raise revenue as a reactive measure following a disaster (ex post), there are at least two provinces (Xayabouly and Salavan) that have applied an additional tax on the provincial population to raise revenue for provincial disaster funds ex ante (as described in section 4.2.2).

4.3.4. Donor assistance

Between 2000 and 2010, donor assistance to Lao PDR for disaster financing totaled US\$74 million (see figure 5).¹⁰ Of this, 68 percent was for emergency response and 31 percent for disaster preparedness and prevention activities. Disaster aid commitments from donors increased from US\$2.5 million in 2008 to US\$5.1 million in 2009 and to US\$9.6 million in 2010, following Typhoon Ketsana. Disaster aid over this time period included commitments from Japan (41 percent), the European Community (20 percent), Germany (13 percent), Australia (7 percent), and the United States (7 percent).

¹⁰ Global Facility for Disaster Reduction and Recovery [GFDRR], Disaster Aid Tracking database, <http://gfdrr.aiddata.org/dashboard>.

Figure 5. Total annual disaster aid commitments to Lao PDR, 2000–2010 (US\$ million)



Source: GFDRR, Disaster Aid Tracking database, <http://gfdrr.aiddata.org/dashboard>.

The Budget Department under MoF does not maintain accurate information on the amount of external financing received for disaster-related uses. There is currently a lack of coordinated information on overall donor resources received for post-disaster assistance.

Disaster aid assistance to the ASEAN region, including Lao PDR, may decline in the future as member states become more economically prosperous. Lao PDR retains low-income-country status in the region (along with Cambodia and Myanmar), and can likely continue to look to donor support in the event of a major catastrophe; but this financing will become increasingly scarce over time. Donor assistance has other disadvantages. It usually does not support the government's response to less catastrophic but frequently recurring events. In addition, donor financing is highly unpredictable and does not allow the government to plan for a fast disaster response. Following floods in 2008 and Typhoon Ketsana in 2009, flash appeals were launched by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). But the outcomes of such flash appeals are highly unpredictable (as shown in table 6).

Table 6. Outcome of UN OCHA disaster flash appeals for Lao PDR

Disaster	Year appeal launched	Funding requested (US\$ million)	Percentage received
Floods	2008	10	46%
Typhoon Ketsana	2009	12	75%

Source: World Bank and GFDRR 2012.

A lack of coordination between the government and donors, including uncertainty about responsibilities, was an issue during the 2013 floods. This issue was partly due to the government restructure and transfer of responsibilities from the former NDMO to DDMCC. A post-disaster needs assessment was not undertaken with support by donors following these floods (as had been the practice after Typhoons Ketsana and Haima) because the government issued no official declaration of disaster. The absence of a comprehensive disaster needs assessment, supported by international organizations, may have had an impact on the level of donor funding received for recovery and reconstruction.

4.4. Budget execution

4.4.1. Emergency procurement process

For use of the National Contingency Fund for emergency relief expenditures, provincial governors can approve payments to the District Office of Labour and Social Welfare (under MLSW), which manages the purchase of goods (such as rice) to provide relief to disaster victims. The use of funds to purchase goods for emergency relief for beneficiaries follows an initial (next-day) damage assessment by the DDPCCs, led by the district governor. In practice DDPCCs may arrange to borrow funds from the District Cabinet Office the day after a disaster for purchase of goods for emergency relief. This amount is reimbursed from the provincial contingency fund approximately one month later. Goods for emergency relief (rice, water, shelter, etc.) should be purchased by the District Office of Labour and Social Welfare using government emergency procurement procedures in order to ensure that correct and transparent processes are followed.

4.4.2. Reconstruction procurement process

To access the National Contingency Fund for disaster reconstruction expenditures, provincial governments coordinate with PDPCCs and sector line ministries to prepare a recovery plan and budget by sector. This is based on information gathered by DDPCCs and PDPCCs for the detailed assessment of disaster (i.e., the post-disaster needs assessment), including damage and costs of repair. The recovery plan is submitted to MPI, which reviews the plan for prioritization and approval. MPI then meets with the Budget Department under MoF to determine the level of funding available. Once the recovery plan is approved, contingency funds are disbursed by the Budget Department directly to provincial governments and service providers to be used for reconstruction projects. For reconstruction expenditure following past disasters, the funds have mainly been disbursed to the Ministry of Public Works and Transport, Ministry of Agriculture and Forestry, and Ministry of Education. Box 1 provides an overview of the use of the National Contingency Fund following the 2013 floods.

The disaster assessment and preparation of the recovery plan starts approximately one month following the disaster and takes approximately one month to complete. Once the recovery plans have been submitted and approved by MPI, MPI submits the payment request to the Budget Department under MoF. Funds from the Contingency Fund can be released by the Budget Department to contractors for reconstruction work within the same week. Urgent infrastructure repair work (e.g., road repair following a landslide) can take place as soon as three days after the disaster. In practice, contracts are often prepared between government departments and contractors undertaking reconstruction work in advance of funds being available, on credit arrangements. However, payments are made from the Contingency Fund for approximately 20 percent of the cost of the services provided per year. This arrangement has led to the build-up of government debt to contractors.

Box 1. Disbursement from National Contingency Fund during 2013 floods

Following the 2013 tropical storm that caused widespread flooding, the government allocated US\$1.24 million from its FY2013/14 contingency fund for post-disaster recovery and rehabilitation.

Of this amount, US\$372,000 was allocated for rehabilitation of damaged irrigation systems, US\$744,000 for rehabilitation of damaged roads and bridges, US\$121,520 for humanitarian assistance [rice, food, medicines, and so on] for affected people, and US\$2,480 for monitoring of the implementation. In addition, the government approved some 9,500 tons of emergency rice, valued at US\$942,400, and provided support to local people for repairing more than 1,700 damaged houses.

Source: MPI et al. 2014.

5. Domestic Disaster Risk Insurance Markets

Lao PDR has the fourth-lowest non-life insurance penetration as a percentage of GDP among ASEAN members, and is ranked lower still for premium per capita. Only a small proportion of the population has insurance coverage, and most of this coverage is from non-life insurance products. The Assurances Generales du Laos (AGL), which is partly owned by the government, held a monopoly over the market before 2008. Five non-life insurers have entered the market since 2008, although AGL still holds an estimated 80 percent market share (World Bank and GFDRR 2012).

There is no agricultural crop or livestock insurance in Lao PDR. The Ministry of Agriculture and Forestry is planning to implement insurance programs for smallholder farmers under its strategy for agricultural development for 2011–20.

The domestic market for property catastrophe risk insurance is still emerging in Lao PDR. There is no or just minimal insurance coverage for residential assets, and incomplete insurance coverage for commercial assets.



6. Funding Gap Analysis

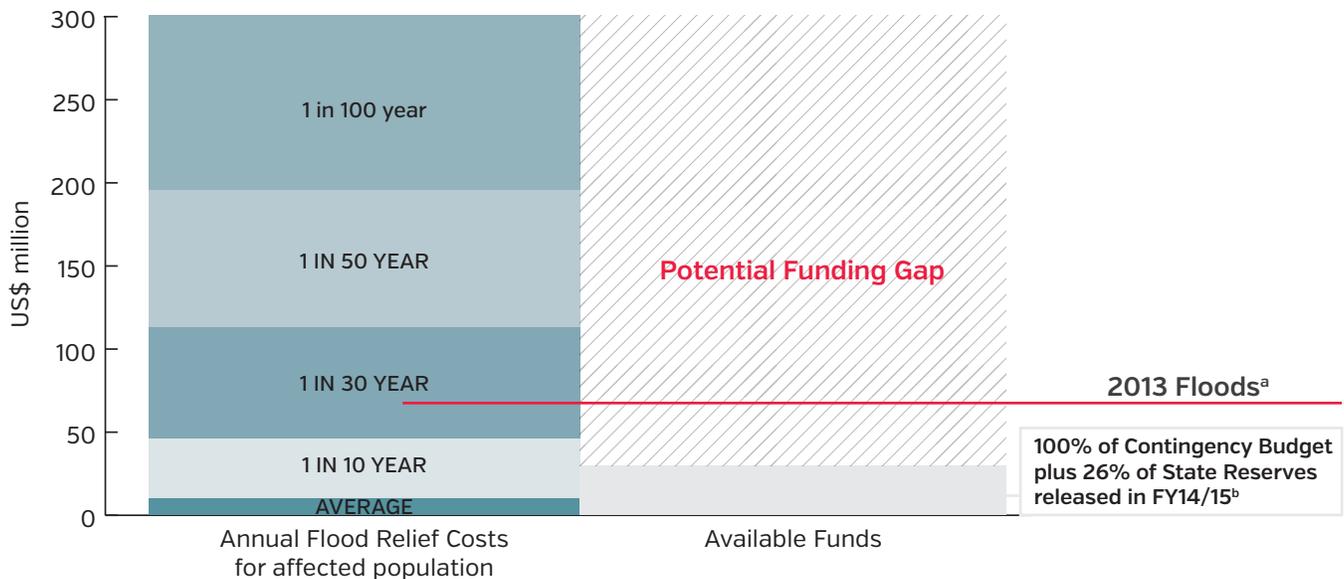
An assessment of the short-term emergency response and recovery funding gap has been completed by the World Bank Disaster Risk Financing and Insurance Program, based on the quantitative analysis of flood events described in section 2.2.2. It shows that the emergency response cost of floods is less than currently available resources, meaning there is a significant short-term funding gap.

Figure 6 shows the estimated emergency relief costs for flood events of various severities as compared to currently available financial resources. It shows a significant funding gap for more extreme events. But even for less frequent

events, the funding gap may be substantial if not all resources from the Reserve Fund (contingency budget) and the national Disaster Management Fund are available for disaster response.

The World Bank team had limited information on the total exposure of public assets, and therefore could not calculate the reconstruction gap. Estimates of the reconstruction costs from the 2009 and 2011 typhoons and the 2013 floods are included in section 2.2.1.

Figure 6. Funding gap for estimated short-term emergency response and recovery needs



1. The average annual cost of emergency response to floods is US\$10 million.

2. There is a 10% probability [1 in 10 year event] that the annual cost of emergency response could exceed US\$36 million.

3. Emergency relief costs for the 2013 floods are estimated at US\$46 million [based on 0.5 million people affected].

4. A US\$12 million Contingency Budget (not solely reserved for disasters) plus State Reserve Budget of US\$10 million was available in FY14/15.

a. Estimated emergency relief costs for the 2013 flood are US\$46 million [based on 0.5 million people affected], resulting in an estimated funding gap of US\$39 million.

b. A contingency budget of US\$12 million [not solely reserved for disasters] plus US\$10 million from the State Reserve Fund [based on FY14/15 allocation] is available

7. Options for Consideration

Based on information compiled in this diagnostic note and consultations with all relevant stakeholders, the government may want to elaborate its priorities in strengthening financial resilience in a comprehensive DRF strategy. This initial assessment identifies the following key gaps:

- There is a growing number of potentially overlapping funds that can be used for post-disaster response.
- DRF is not currently anchored in a national disaster management law, and the government currently has no process in place for declaring a state of disaster.
- Current disaster funds seem insufficient to cover even recurrent losses, and the government remains exposed to more extreme events, relying heavily on international donor assistance for response, relief, and recovery.

In drafting its DRF strategy, the government may want to consider the following options, which are based on the above findings.

- Option 1: Improve coordination of existing disaster funds with the State Reserve Fund, given the wide range and overlap of use of the existing funds.

Existing disaster funds should be aligned or combined with the State Reserve Fund, based on the existing funds' scope of use. This step (illustrated in figure 7) will help to centralize the use and monitoring of disaster-related expenditures, and avoid overlapping uses of the different existing funds. For example, the Disaster Management Fund (not currently operational) could be linked with “risk reduction and preparedness” expenditures from the State Reserve Fund. The Social Welfare Fund and provincial disaster funds could be linked to “emergency relief and response” expenditures from State Reserve Fund. The National Contingency Fund and Road Maintenance Fund could be linked with “rehabilitation and reconstruction” expenditures. The Budget Department has already indicated that the Contingency Fund is likely to be combined with the State Reserve Fund eventually.

Figure 7. Possible linkage of existing disaster funds with the State Reserve Fund, based on main use of fund



Developing a standard model for provincial funds—one to be adopted by high-risk provinces—should be considered. Currently, different provinces have different numbers of provincial funds (ranging from five to zero), and the funds are not based on an existing legal framework. (Note that provincial governments can also access the State Reserve Fund.)

- Option 2: Coordinate with DDMCC and UNDP on the development of the new Disaster Management and Climate Change Law.

This step would make it possible to include specific DRF provisions in the draft law relating to the State Reserve Fund and specifically to support the legal framework for the State Reserve Fund (e.g., funding mechanism, institutional responsibilities, scope of use, etc.). The provision on the State Reserve Fund in the new disaster risk management law should also be consistent with the existing legal framework, including the Decree on State Reserves and the State Budget Law. Achieving this consistency is likely to require legal input.

As part of this step, a clear process for the official declaration of disaster by the government could be defined for inclusion in the draft law. The declaration of disaster process may eventually be used to trigger access to the State Reserve Fund, other funds, and international donor assistance.

- Option 3: Prepare a comprehensive financial protection strategy for Lao PDR and a implementation plan for carrying it out.

A national DRF strategy should be developed as a key step toward developing a sustainable DRF program in Lao PDR. The feasibility of implementing other DRF instruments should be reviewed and set out in an implementation plan, which should be based on the financial protection strategy and include priorities for action. This plan will help the government to diversify its portfolio of DRF instruments and gain potentially greater access to funds following disaster. It could include, for example, development of a regional risk-pooling mechanism and a risk-layering approach to ensure low- to high-severity disaster events have appropriate financing instruments available for disaster response and recovery.

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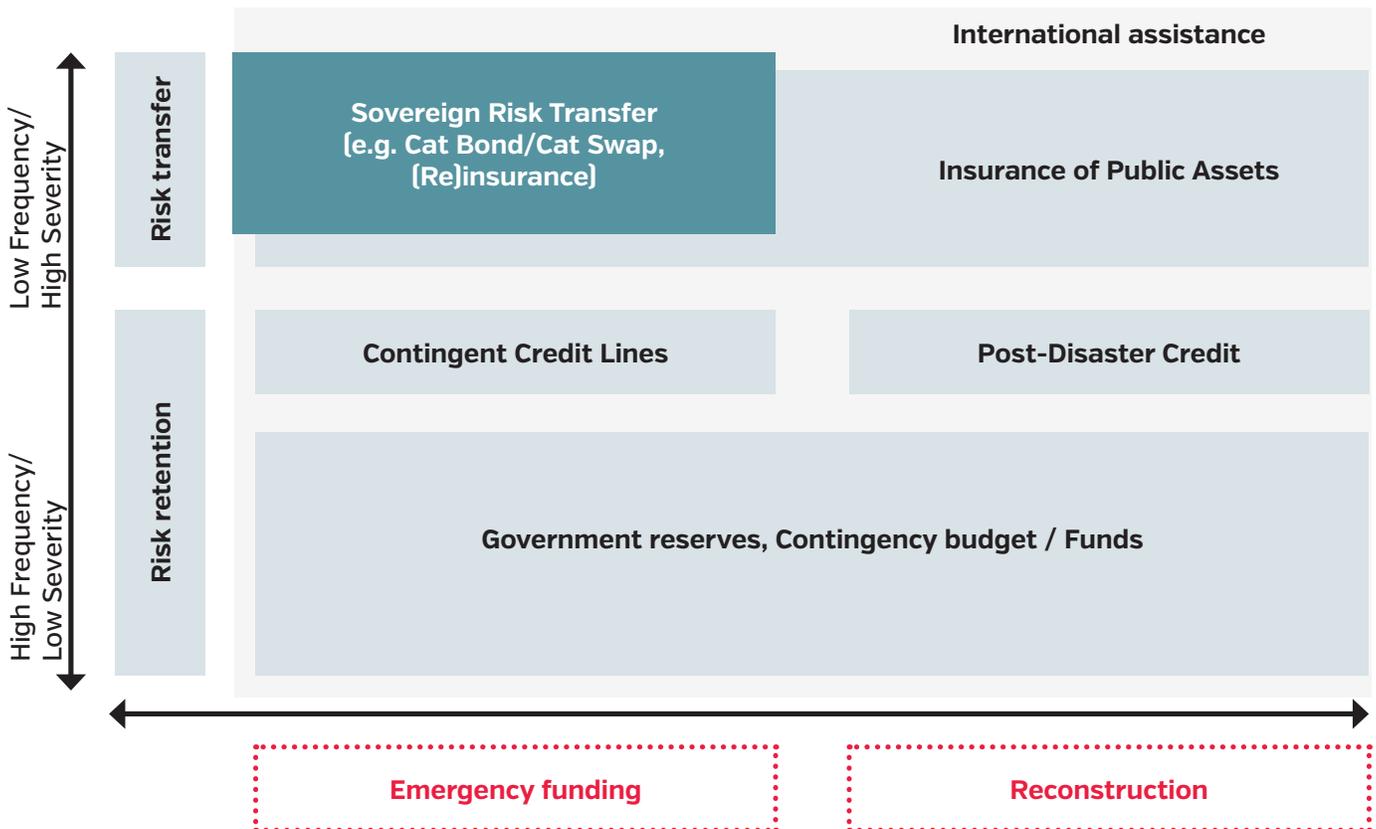
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Annex 1. Risk-Layering Approach

International experience has shown that governments ideally combine different instruments to protect against events of different frequency and severity. Such *risk layering* ensures that cheaper sources of money are used first, with the most expensive instruments used only in exceptional circumstances. For example, insurance can provide cover against extreme events, but is not appropriate to protect against low-intensity events that recur regularly. For these latter events, the government could consider setting up a dedicated contingency fund to retain this lowest layer of risk.

A comprehensive financial protection strategy for the government generally brings together pre-and post-disaster financing instruments. As shown in figure A1.1, such instruments address the evolving needs for funds—from emergency response to long-term reconstruction—and are appropriate to the relative probability of events. For example, a government could decide to purchase more expensive risk transfer instruments—such as catastrophe bonds—to ensure immediate liquidity for emergency response to extreme events. But it may raise the much larger amounts needed for reconstruction through budget reallocations and borrowing.

Figure A1.1. Three-tiered risk-layering strategy for governments



Annex 2. DRF Framework

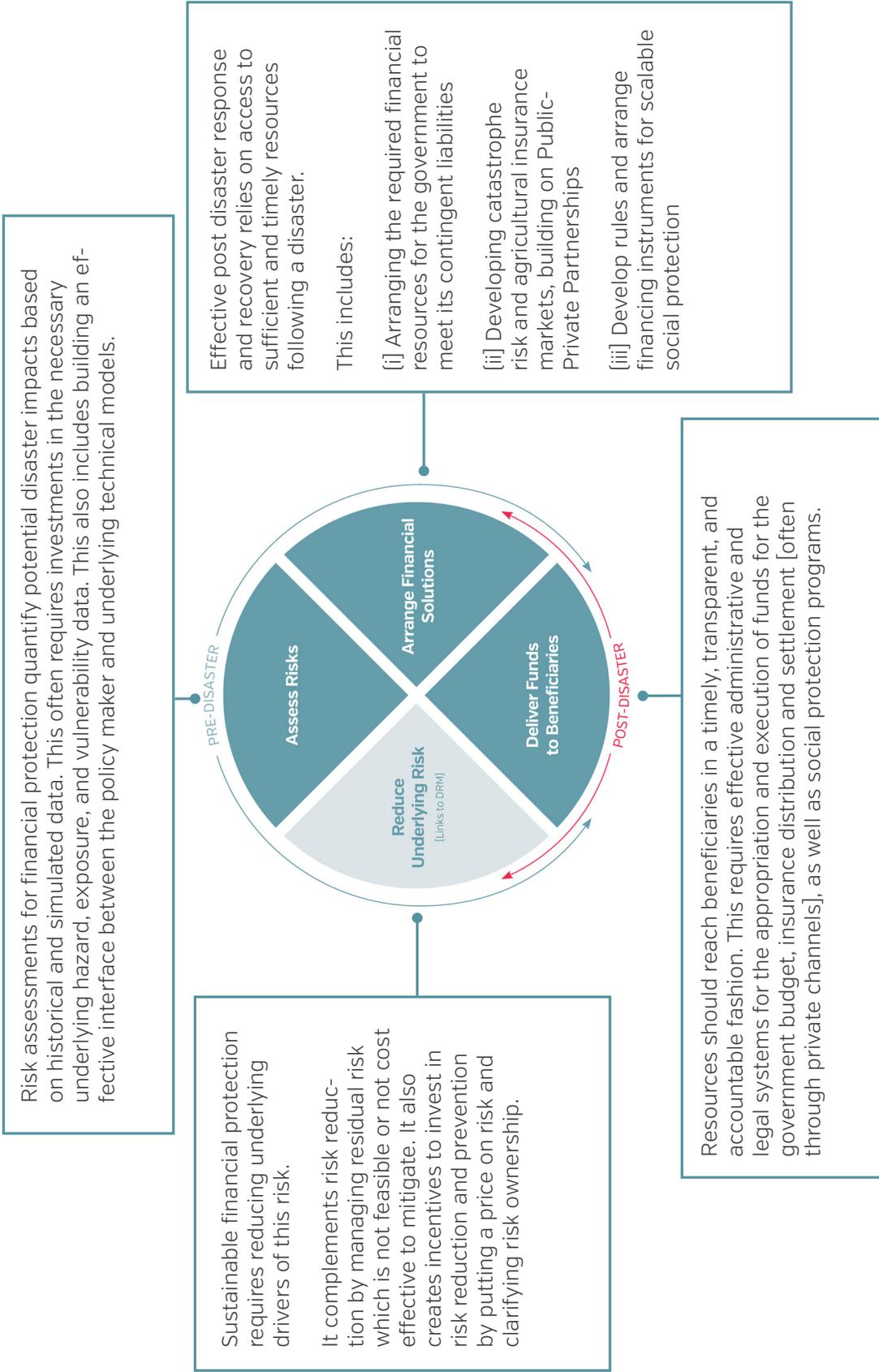
The World Bank Disaster Risk Financing and Insurance Program's experience working with many countries around the world has informed the development of an operational framework for public financial management of natural disasters. The framework is a practical and comprehensive resource on good practices for governments seeking to establish and improve disaster risk financing and insurance activities (see World Bank and GFDRR 2014).

The operational framework is a practical guide to support decision makers who look to strengthen their nation's financial resilience to natural disasters. Some short-term steps may address urgent problems while decision makers consider long-term and more comprehensive financial

protection policies. For example, for a ministry of finance to use risk transfer, it may be necessary to change existing law, a step that may take several years to accomplish. Over time, a long-term strategy developed around various ongoing activities can help the government build a comprehensive approach to the financial management of disasters.

When implementing financial protection solutions, a government must understand the risks it faces, consider where resources may be obtained following a disaster, and identify appropriate channels to ensure that those resources reach the intended beneficiaries without delay. Figure A2.1 shows core technical steps for governments carrying out financial protection solutions.

Figure A2.1. Operational disaster risk financing and insurance framework: Core technical steps



Source: World Bank and GFDRR 2014.

Annex 3. Summary of Funds for Disaster Risk Financing in Lao PDR

DRF instrument	Objective	Value of funds available	Source of funds
State Reserve Fund [current status: active]	Respond to urgent and emergency needs to prevent, fight, and rehabilitate impacts of disasters, to support national defense and public security with the aim of ensuring economic and political stability	<ul style="list-style-type: none"> LAK 300 billion (US\$37 million) allocated in Oct. 2014 for FY2014/15. LAK 130 billion (US\$16 million) has been released to the fund in FY2014/15. Funds can accumulate. 	<ul style="list-style-type: none"> 3% of annual state budget expenditure Budget surplus Resource sales, interest, Financial contribution of individuals and organizations [Specified by state Budget Law and Decree on State Reserves]
Disaster Management Fund [current status: under development]	Per draft decree: Mobilize funds to support preparedness, prevention, emergency assistance, and rehabilitation after disaster, aimed at restoring livelihoods of people and assets of citizens and state to previous conditions and ensuring safety	[Fund not currently active]	<ul style="list-style-type: none"> State budget Donations from individuals and organizations [local/int'l] Contribution of public investment projects [environment] Fund-raising activities [Specified in draft Decree on Disaster Management Fund]
National Contingency Fund [current status: active]	Contingency fund for disaster-related expenditure	<ul style="list-style-type: none"> Budget LAK 100 billion (US\$12.3 million) per annum. Funds do not accumulate. 	State Budget [Specified in State Budget Law]
Social Welfare Fund [current status: active]	For emergency response, assistance for victims of natural disasters (e.g., from fires, crop damage due to insects, droughts, etc.), and poverty relief for low-income or disadvantaged households (social security)	<ul style="list-style-type: none"> LAK 500 million (US\$62,000) in FY14/15. Funds can accumulate. 	<ul style="list-style-type: none"> State budget Grant contributions from individuals or international organizations [Specified in draft Decree on Social Welfare Fund]
Road Maintenance Fund [current status: active]	Per draft decree: Use for road maintenance [68% national roads and 20% local roads], including regular renovation and emergency or urgent road repair work. 10% of the fund is to be used for road safety activities, and 2% for management costs.	<ul style="list-style-type: none"> LAK 400 billion (US\$50 million) [approximately]. Approximately 10% of the fund may be used for disaster recovery. Funds can accumulate. 	Fuel sales tax revenue, overloaded-truck penalties, and vehicle registration fees. [Specified in draft Decree on Road Maintenance Fund]

Scope of use of funds	Criteria for access	Governance	Disbursement procedures
<ul style="list-style-type: none"> Risk reduction Preparedness Relief and response Rehabilitation and reconstruction. 	<ul style="list-style-type: none"> Notice of disaster Post-disaster needs assessment 	State Reserve Department operates the fund and serves as the secretariat to the Ministry of Finance for the State Reserve Fund.	Ministry or local administration makes request to prime minister and State Reserve Department [MoF]. Prime minister approves, and State Reserve Department processes payment.
<ul style="list-style-type: none"> Risk reduction Preparedness Relief and response Rehabilitation and reconstruction 	[TBC]	Managed by DDMCC (MoNRE), overseen by an executive board and NDPCC.	Expenditures require two signatures of persons assigned by the board. Withdrawals must not exceed total revenue for each fiscal year.
<ul style="list-style-type: none"> Relief and response Road and irrigation rehabilitation projects 	Budget plan submitted to MPI, and financing agreed by MoF	Administered by the Budget Department within MoF.	Provincial government, in coordination with national line ministries, prepares a recovery plan and budget. The document is approved by MPI and Budget Department, and funds are disbursed directly to provincial governments or service providers.
<ul style="list-style-type: none"> Relief and response <p>Assistance to beneficiaries mostly provided in kind</p>	Requests from reports prepared at the district level, to MLSW	Managed by Social Welfare Department, MLSW.	Reports prepared at local level (village or district office of labor and social welfare) and escalated to provincial and ministry level [MLSW] for approval and release of funds. Funds are used to purchase goods provided to beneficiaries.
<ul style="list-style-type: none"> Road repair and renovation Safety activities 	[TBC]	Managed by Ministry of Public Works and Transport.	Budget is allocated by the Management Committee of the road maintenance and road safety fund. Roads in need of repair will be ranked by priority according to the proposal from the Department of Roads, MLSW.

