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# Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 30-Mar-2017 | Report No: PIDISDSA20431



**BASIC INFORMATION**

**A. Basic Project Data**

Country Lao People's Democratic Republic	Project ID P160930	Project Name Lao PDR Southeast Asia Disaster Risk Management Project	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 21-Mar-2017	Estimated Board Date 06-Jul-2017	Practice Area (Lead) Social, Urban, Rural and Resilience Global Practice
Lending Instrument Investment Project Financing	Borrower(s) Lao People's Democratic Republic (Lao PDR)	Implementing Agency Ministry of Public Works and Transport, Ministry of Natural Resources and Environment, Ministry of Finance, Ministry of Planning and Investment	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to reduce the impacts of flooding in Muang Xay and enhance the capacity of the Government to facilitate hydro-meteorological services and disaster response. The Project constitutes a part of a regional program designed to help reduce the impacts of natural hazards in Southeast Asia.

Components

- Integrated Urban Flood Risk Management
- Hydromet Modernization and Early Warning Systems
- Financial Planning for Disaster Resilience
- Knowledge and Coordination
- Contingent Emergency Response

**Financing (in USD Million)**

Financing Source	Amount
Global Facility for Disaster Reduction and Recovery	1.00
International Development Association (IDA)	30.00
<b>Total Project Cost</b>	<b>31.00</b>

Environmental Assessment Category

B - Partial Assessment



Decision

The review did authorize the preparation to continue

**Note to Task Teams:** End of system generated content, document is editable from here.

Other Decision (as needed)

## B. Introduction and Context

### Country Context

- 1. This project is part of a Southeast Asia (SEA) regional Series of Projects on Disaster Risk Management (DRM), involving Cambodia, Lao PDR, and Myanmar.** Southeast Asia is highly exposed to natural disasters and the recurrent extreme events are seen as directly linked to the persistent poverty in the region. Among SEA countries, Cambodia, Lao PDR, and Myanmar face particularly high annual average losses, in excess of 0.7 percent of their GDP. This Series of Projects, comprising the Cambodia, Lao PDR, and Myanmar SEA DRM Projects, seeks to strengthen the region's capacity and cooperation in the field of DRM. The projects incorporate three main common themes. First, disaster risk pooling will be promoted by seeking to establish the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) which would be the first regional catastrophe risk pool in SEA, to provide participating countries with immediate liquidity for rapid disaster response. Second, the projects will strengthen the respective Ministries of Finance and Planning as well as Line Ministries to mainstream DRM into policies and support systematic allocations for resilience. And third, integrated packages of structural and non-structural investments to increase climate and disasters resilience will be implemented. The approach combines investments at the country and regional levels (see Annex 6).
- 2. Lao People's Democratic Republic (PDR), after rapid economic growth in the past decades, has reached lower-middle income status with a gross national income (GNI) of US\$1,730 in 2015.**<sup>1</sup> 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.<sup>2</sup> 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.
- 3. 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

<sup>1</sup> World Bank. 2016. *Economic Update. East Asia and the Pacific. Growing Challenges*. April.

<sup>2</sup> 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.



reduction and growth in consumption is modest by international standards.<sup>3</sup> 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 poverty<sup>4</sup>, particularly in the event of a shock.

4. **Disasters in Lao PDR disproportionately affect the poor.** Lao PDR is exposed to high climate and disaster risks and the economic development puts more people and assets at risk. Floods, storms and droughts are the most prevalent hazards, which are expected to become more severe under the influence of climate change (see Annex 5). Three of the five costliest natural disasters have taken place since 2009, including two floods in 2013 (CRED, 2016). The 2015-16 El Niño has been one of the strongest on record and has impacted Lao PDR through lower yields, reduced hydropower production and damages from storms. A preliminary financial risk assessment<sup>5</sup> estimated high annual economic losses for Lao PDR due to natural disasters, equivalent to 0.7 percent of GDP.<sup>6</sup> Related to floods, Lao PDR could face yearly average costs for emergency response of US\$10 million and these costs could exceed US\$36 million once every 10 years (10 percent annual probability).<sup>7</sup> The poor have been suffering the brunt of the consequences in the aftermath of disasters, due to their overexposure, higher vulnerability and reduced ability to recover. Disasters impoverish the poor and entrap them in the poverty cycle<sup>8</sup>. In the last years, poverty could have declined more rapidly had a large number of vulnerable households not fallen back into poverty, after shocks<sup>9</sup>.

5. **To reduce disaster impacts, a comprehensive approach with pre- and post-disaster measures is needed.** In particular, resilient urban risk management, early warning, and post-disaster financing are needed to sustain economic progress. While Lao PDR is still mostly a rural country, the country is urbanizing rapidly. The urban population increased by 40 percent between 2005 and 2015, and between 2000 and 2010, it recorded the fastest rates of urban spatial expansion in East Asia – reaching 7.3 percent.<sup>10</sup> If not managed, urbanization will lead to an accumulation of people and assets in hazardous areas and unsafe structures. At the same time, investments in early warning systems, which have been proven to have a high return rate<sup>11</sup>, are needed to protect the livelihoods of communities and mitigate agricultural and other shocks in the event of a disaster. Finally, appropriate risk financing instruments, which help the Government of Lao PDR (GoL) to quickly respond to a disaster, are lacking. These instruments are needed to, for example, finance social protection for the most vulnerable in post-disaster situations.

<sup>3</sup> World Bank. Forthcoming. Lao PDR Systematic Country Diagnostic.

<sup>4</sup> World Bank. 2015. *Drivers of Poverty Reduction in Lao PDR. Lao PDR Poverty Policy Notes*. October.

<sup>5</sup> World Bank / Global Facility for Disaster Reduction and Recovery. 2012. *ASEAN. Advancing Disaster Risk Financing and Insurance in ASEAN Member States: Framework and Options for Implementation*. Among ASEAN countries, Lao PDR faces the highest estimated 100-year loss measures as loss of 11.7 percent GDP, rising to 13.9 percent GDP in simulation of a 200-year Probable Maximum Loss.

<sup>6</sup> World Bank / Global Facility for Disaster Reduction and Recovery. 2012. *ASEAN. Advancing Disaster Risk Financing and Insurance in ASEAN Member States: Framework and Options for Implementation*.

<sup>7</sup> This assessment of emergency response cost is based on a preliminary actuarial analysis using historical data on the total number of people affected by floods since 1974 as reported in the international EM-DAT database. It assumes that (i) all affected people receive emergency relief; (ii) the total emergency response cost is US\$80 per person.

<sup>8</sup> World Bank. 2016. *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters*.

<sup>9</sup> World Bank. 2015. *Drivers of Poverty Reduction in Lao PDR. Lao PDR Poverty Policy Notes*. October.

<sup>10</sup> World Bank. 2015. *East Asia's Changing Urban Landscape: Measuring a Decade of Spatial Growth*. Urban Development Series. Washington, DC: World Bank.

<sup>11</sup> Jha, A., Stanton-Geddes, Z, eds. 2013. *Strong, Safe, and Resilient: A Strategic Policy Guide for Disaster Risk Management in East Asia and the Pacific. Directions in Development*. Washington, DC: World Bank; p. 78.



Sectoral and Institutional Context

6. **Recognizing the links between development, sustainability and resilience, Lao PDR has incorporated disaster and climate resilience into its policies but challenges in the implementation remain.** The World Bank has been supporting DRM mainstreaming in Lao PDR with a technical assistance program since 2010, focusing on integrating climate resilience into strategic plans and investment planning of critical ministries. The Government integrated climate risks and measures in the 7<sup>th</sup> National Socio-Economic Development Plan (NSED) 2011-2015 and has scaled up its focus on DRM even more in the 8<sup>th</sup> NSED for 2016-2020. Key sectoral policies and strategies in the environment, transport, education and agriculture sector have integrated climate and disaster considerations. For example, the Ministry of Natural Resources and Environment (MONRE) has introduced a chapter on Disaster Risk management and Climate Change in its Vision 2030, Strategy 2025 and Action Plan 2020. The Ministry of Planning and Investment (MPI) has issued a ministerial decision in 2017 to establish a public investment review process that takes into account climate and disaster risk considerations.

7. **Gaps to ensure a comprehensive approach to DRM remain.** Implementation of the strategies is challenging due to limited financial and human resources. Mainstreaming of DRM principles into development across sectors is not systematized and the focus in the Government remains on disaster response. The role of MPI and the Ministry of Finance (MOF) in DRM is limited although the leadership of both ministries is critical in prioritizing and supporting strategic risk reduction investments. In 2013, the Department of Disaster Management and Climate Change under MONRE has become the secretariat of the National Disaster Prevention and Control Committee, previously anchored with the Ministry of Labor and Social Welfare. These changes resulted in coordination and implementation challenges.

8. **Increasing the resilience of cities is an important part of strengthening comprehensive DRM in Lao PDR.** The Department of Waterways (DOW) of the Ministry of Public Works and Transport (MPWT) is responsible for urban flood control, navigation, and river bank protection. DOW is struggling to protect growing Lao cities from floods and flood mitigation activities focus mainly on emergency works. Flooding is exacerbated by the fact that land use planning is not informed by disaster risk assessments and land zoning is not enforced. Due to the highly interdependent nature of systems in cities, disasters result in cascading impacts, in which the availability of basic services is easily disrupted. In its five-year investment plan (2016-2021), DOW included the flood risk protection of Muang Xay, the capital of Oudomxay Province, as one of its highest priorities. The city, a critical transport hub located in the mountainous areas of Nam Ou River Basin, is subject to large scale flash floods every four to five years. The lack of strategic planning, insufficient flood control measures, rudimentary early warning and public alert systems, and delayed recovery emergency budget have led to high costs of these events. An upcoming Law on Urban Development, prepared by the Department of Urban Planning and Housing (DUPH) within MPWT, will require all cities to prepare an urban development plan which is an opportunity to address some of the growing disaster and climate risks facing the emerging urban communities.

9. **Upgrading observing networks, capacity building, real-time collection of data and dissemination of reliable forecasts and weather information to different users need to be improved for effective DRM.** Early warning and hydrological and meteorological (hydromet) services are provided by the Department of Hydrology and Meteorology (DMH) of MONRE, with an annual budget of US\$300,000, personnel of 245, and a limited observation network given the size of the country. While DMH provides a basic level of services, it lags behind Southeast Asian countries in its core capacities and forecasting technology. It cannot meet its quality,



upgrading and maintenance needs, or the demand for improved services and products. For example, DMH's has only limited capacity to forecast flash floods which constraints its ability to provide timely warning to the communities affected, and it has no capacity to receive user feedback. With previous World Bank support, DMH prepared strategic, legal and operational documents for hydro-meteorological services and early warning systems to clarify the roles and responsibilities of DMH and strengthen the institutional set up and collaboration.

10. **Linked to the shortfalls in disaster risk reduction, the emergency response cost for disasters, particularly floods, can lead to a significant short-term funding gap which results in a diversion of public funds.** The GoL has established a State Reserves Fund under the State Reserve Department (SRD) at MOF and allocates a contingency budget, but it remains exposed to catastrophic events, relying heavily on international donor assistance for response, relief and recovery. A comprehensive Disaster Risk Financing and Insurance (DRFI) strategy or policy would help the GoL systematically manage the financial impact of disasters and improve its rapid response financing capacity. Given the limited ability of the GoL to access domestic and international credit sources, access insurance markets, or raise tax revenue after disasters, recovery and reconstruction costs of previous disasters have been partially met through budget reallocation by line agencies and donor assistance. These mechanisms are unpredictable, cause delays in Government response and take money away from other development priorities. Significant costs from disasters remain unaddressed and have to be absorbed by affected populations, often resulting in the most vulnerable being worse off. Regional cooperation on DRFI, envisioned also under the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), remains nascent: a regional program that would enable participating countries to access sovereign disaster risk response financing does not exist.

11. **The proposed project will address key identified needs through an integrated approach to DRM with engineered and non-engineered risk reduction investments.** To strengthen risk assessments and risk reduction, it will help pilot the concept of integrated urban flood risk management in Muang Xay and strengthen the institutional capacity of the implementing agencies. To support preparedness and help avoid unnecessary damage and losses, the project will support the modernization of hydromet and early warning systems on national level, with physical installations in the Nam Ou River Basin, where Muang Xay is located. Both types of investments will serve as examples for other cities and river basins in the country. Besides facilitating early warnings, the non-structural investments will provide data to support long term planning. And to strengthen financial protection, the project will help devise a comprehensive approach to DRFI, helping to develop a national DRFI strategy and enabling access to sovereign disaster risk insurance.

### C. Proposed Development Objective(s)

**Note to Task Teams:** The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

Development Objective(s) (From PAD)

12. The Project Development Objective (PDO) is to reduce the impacts of flooding in Muang Xay and enhance the capacity of the Government to facilitate hydro-meteorological services and disaster response. The



Project constitutes a part of a regional program designed to help reduce the impacts of natural hazards in Southeast Asia.

#### Key Results

13. The achievement of the PDO will be measured through the following key indicators:
- I. Percentage of urban population in Muang Xay protected from floods; of which are female (%);
  - II. Satisfaction of weather information users increased (Y/N);
  - III. Lao PDR has information and capacity to access sovereign disaster risk insurance (Y/N).

#### D. Project Description

##### **Component 1. Integrated Urban Flood Risk Management (US\$14 million IDA Credit)**

14. This component will strengthen flood protection and resilient urban planning in Muang Xay. It will be implemented by DOW of MPWT, in coordination with DUPH of MPWT.
15. *Sub-component 1.1. Structural Investments (US\$12 million)* will finance flood protection infrastructure in Muang Xay, including river bank protection, dikes, canal improvements, including river short cuts, sluice gates, pumping stations, and river side parks.
16. To reduce flood hazards in Muang Xay the discharge capacity of the rivers passing through the city will be increased to reduce peak flood levels. This will be achieved by upgrading of embankment schemes, improving river channels, and constructing sluice gates preventing backflow of river water to the city. The embankments will protect the highly populated parts of the city from frequent flooding, including the important National Road 13. The detailed designs will be developed taking into account good practice in urban architecture to ensure that the infrastructure investments are accompanied by social benefits. For example, all-season access to the river is envisioned along with tree planting and a river side park.
17. *Sub-component 1.2. Non-structural Investments (US\$1 million)* will finance the development of resilient urban design solutions and strengthen land-zoning under flood risk pressure in Muang Xay. On national level, it will support institutional capacity-building on integrated urban flood risk management. Improved land use planning more broadly will take into account flood management in the river sub-basin, exploring approaches to allow room for the river in low-density areas, while protecting against flooding in high-density areas. Particular attention will be given to the creation of green and socially attractive solutions and the compensation for loss of existing green infrastructure.
18. *Sub-component 1.3. Project Management (US\$1 million)* will provide assistance to strengthen the institutional, organizational and technical capacity of MPWT to support project implementation, including coordination, technical matters, procurement, financial management, social and environmental safeguards, monitoring and evaluation, and reporting.

##### **Component 2. Hydromet Modernization and Early Warning Systems (US\$10 million IDA Credit)**

19. Implemented by DMH under MONRE, this component will improve the delivery of weather, climate and hydrological services and end-to-end early warning system at a national level by upgrading the entire hydromet



value chain in Lao PDR with particular emphasis on timeliness, improved quality and quantity, and user friendliness of services. Physical investments will be financed in the three provinces of the Nam Ou River Basin, namely Luang Prabang, Oudomxay, and Phongsali.

20. *Sub-component 2.1. Strengthening Early Warning Systems and Service Delivery Systems (US\$5 million)* will support the development and implementation of a Service Delivery Strategy. Early warning services will be strengthened by developing localized and impact based warning products, disseminating timely warnings through diversified communication channels, ensuring last mile connectivity and enhancing stakeholder collaboration. Priority services will be identified for weather sensitive sectors such as agriculture, energy, and disaster risk management. A centralized online hydro-meteorological data management platform with validation procedures and a quality management system will be introduced to provide consistency in the process of service production and delivery. A business plan will be developed to strategize cost recovery from value added services, for example, from the aviation and power sectors.

21. *Sub-component 2.2. Modernizing the Observing, Forecasting and Communication Systems (US\$4 million)* will support the expansion of the hydro-meteorological network in coordination with efforts from development partners. New stations will be aligned with the DMH Master Plan and integrated into existing systems through a system integrator service contract. Provincial offices and their facilities will be upgraded. Forecasting procedures will be improved to ensure effective use of global and regional products. In particular, efforts will be made to strengthen cooperation with Thailand and Vietnam to access regional products. The verification of forecasts will be systematized, recorded and publicized on a regular basis. Data communication and IT systems will be upgraded to enhance communication between DMH, stakeholder organization, DMH provincial and district offices. Staff planning and capacity development program will be developed to identify gaps in skills to operationalize the new systems. Technical and management trainings will be conducted to strengthen capacity of staff at HQ, provincial and district offices.

22. *Sub-component 2.3. Project Management (US\$1 million)* will provide assistance to strengthen the institutional, organizational and technical capacity of MONRE to support project implementation, including coordination, technical matters, procurement, financial management, social and environmental safeguards, monitoring and evaluation, and reporting.

**Component 3. Financial Planning for Disaster Resilience (US\$5 million IDA Credit, of which US\$2 million national IDA Credit and US\$3 million regional IDA Credit + US\$1 million TF Grant)**

23. Implemented by SRD in MOF, this component will help increase the financial resilience of Lao PDR against natural disasters and the Government's capacity to meet post-disaster funding needs.

24. *Sub-component 3.1. Support for Strengthening National Financial Resilience (US\$1 million TF Grant)* will provide technical assistance to strengthen MOF's capacity for financial planning for disaster resilience, including (a) preparation and implementation of a national disaster and climate risk finance strategy; (b) facilitate the country engagement in the preparation and establishment of a regional disaster risk pooling mechanism, such as the proposed Southeast Asia Disaster Risk Insurance Facility (SEADRIF), designed to provide





participating countries with affordable post-disaster rapid response financing, and (c) supporting day-to-day implementation of this part of the project. This sub-component will be financed through a recipient-executed trust fund grant.

25. *Sub-component 3.2. Payment of Disaster Risk Insurance Premium (US\$5 million IDA Credit)* will facilitate access to sovereign risk insurance, through the financing of a premium for three years to an international risk carrier such as the proposed SEADRIF (to-be-established) or through the World Bank Treasury.

#### **Component 4: Knowledge and Coordination (US\$1 million IDA Credit)**

26. Implemented by MPI through the Department of Planning, this component will support (a) overall project coordination and management, including monitoring and evaluation and financial audits, (b) studies for DRM mainstreaming in planning and investment.

#### **Component 5: Contingent Emergency Response Component (US\$0)**

27. This component will allow for a reallocation of credit proceeds from other components to provide emergency recovery and reconstruction support following an eligible crisis or emergency. An Emergency Response Operations Manual will be developed with fiduciary, safeguards, monitoring and reporting, and any other necessary implementation arrangements.

### **E. Implementation**

#### Institutional and Implementation Arrangements

28. **Implementation:** The project will work through existing GoL structures of the line ministries. Component 1 will be implemented by DOW within MPWT, Component 2 by DMH within MONRE, Component 3 by SRD within MOF and Component 4 will be overseen by Department of Planning (DOP) in MPI. The main implementing ministries, MPI, MPWT, MONRE and MOF, will assign a team of staff responsible for management, procurement, financial management, and safeguards of aspects. Consultants will be hired as needed to strengthen the capacity of the respective GoL agencies. These key staff and consultants will be appointed and trained to carry out their respective functions. For Component 3, a National DRFI Working Group was established, chaired by MOF, which will guide the implementation of Component 3. The implementing departments will monitor progress against the agreed performance indicators and produce periodic progress reports. Detailed institutional and implementation arrangements will be described in the Project Operation Manual (POM) which will be finalized before project negotiations. The POM will include a FM Manual detailing the division of responsibilities for the fiduciary function between central and provincial level agencies. For Component 5, an emergency operations manual will be developed which will detail the implementation of emergency activities, including aspects related to procurement, FM, reporting, audit, M&E, and safeguards.

29. **Coordination:** MPI will be responsible for overall coordination and management of the project. MPI will procure specialists to provide expertise and support related to procurement, financial management, safeguards compliance, and project management (M&E) related to the overall project. Component-specific works and consultants will be procured by DOW, DMH, and SRD respectively. To ensure clear assignment of roles, responsibilities, and accountability for project results between central and local levels of GoL, the Minister of MPWT and the Governor of each one of the participating provinces will sign a Memorandum of Understanding.



The Oudomxay Provincial Department of Public Works and Transport (DPWT) and the three relevant provincial Departments of Natural Resources and Environment (DONRE) will be responsible for day to day contract management on sites as well as reporting. To foster regional collaboration related to disaster finance, a Regional DRFI Working Group was set up with representatives from the relevant finance ministries of Cambodia, Lao PDR, and Myanmar. Links to ASEAN will be explored to maintain higher-level political coordination between the countries.

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#### **F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

The physical works under Component 1 will entail flood protection infrastructure in Muang Xay, Oudomxay Province, including riverbank protection and embankments, flood gates, weirs, river-side parks, and drainage canals. The city, a critical transport hub located in the mountainous areas of Nam Ou River Basin, is subject to large scale flash floods every three to four years, facing severe floods in 2008, 2013, and 2016. Oudomxay Province is home to multiple ethnic groups. The investments will benefit the population of the targeted province equally. The proposed flood protection infrastructure could have some impacts on natural habitats. Hydrologic studies will be undertaken and construction will be designed in a way to minimize any potential impacts. A positive impact of the investments will be strengthened flood resilience and resilient urban planning in Muang Xay. Component 2 will include physical investments in the Nam Ou River Basin. The Nam Ou River spans 450km flowing south from mountains near the Lao-China border in Northern Laos to meet the waters of the mainstream Mekong River. The river crosses through the provinces of Phongsaly, Oudomxay and Luang Prabang, mountains, forested valleys and limestone karsts. The Component will finance the expansion of hydrometeorological network: hydromet stations will be installed and provincial offices and their facilities including ones in Luangprabang Province will be upgraded. The sub-projects may directly or indirectly impact communities which are home to members of some of these ethnic groups. The investments will benefit the population of the targeted provinces equally. A positive impact of the investments will be improved delivery of weather, climate and hydrological services and early warning communication. Given that specific sub-projects and locations are not known at the time of appraisal, the Government will prepare an ESMF to provide guidelines to ensure that the project is implemented in an environmentally and socially sustainable manner in line with World Bank and Government safeguards regulations. Component 3 on disaster risk financing and insurance will support the government to entrance fees and/or insurance premiums. The component does not finance any downstream physical investments but it finances the premium for the government to purchase catastrophe risk insurance for 3 years, therefore no safeguards are triggered by this component.



G. Environmental and Social Safeguards Specialists on the Team

Sybounheung Phandanouvong, Martin Henry Lenihan, Peter William Crawford

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Significant negative environmental impacts are not anticipated and impacts will be limited mainly to dust, noise, household business disturbance, and waste during construction. Anticipated works will include but are not limited to: river bank civil works to stabilize the slopes and facilitate drainage which will allow water to pass more rapidly through the inhabited areas; and garden construction which will both aid flood management and provide natural habitat offsets. These issues are moderate and site specific as such ESMPs and ECoPs will be developed for each specific go-location as required by the works and will include full details of mitigation measures and management. These will combine with the application of good construction practices. In addition, the use of materials for the construction will be monitored.
Natural Habitats OP/BP 4.04	Yes	Natural habitats will be impacted through river bank protection works and the development of gardens. As observed, river banks are currently not largely impacted by human activities beyond some small existing agricultural riverbank gardens. Given the scale of the proposed civil works flood protection, this policy is triggered. Compliance will be ensured through application of the ESMF.
Forests OP/BP 4.36	No	The project or any sub-projects do not impact forests, wildlife animals, and non-timber forest products degradation.
Pest Management OP 4.09	No	The project will not lead to an increased use of pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	There is a possibility that physical cultural resources could be found during construction of infrastructure, especially in the indigenous people's areas. To address such a case, a chance-finds-procedure was



included in the ESMF.

Indigenous Peoples OP/BP 4.10

Yes

The Nam Ou Basin and Muang Xay are home to multiple ethnic groups. The sub-projects as well as aspects of the non-structural investments of Components 1 and 2 may directly or indirectly impact communities which are home to members of some of these ethnic groups. Therefore, the World Bank's policy on indigenous people is triggered. An Ethnic Groups Engagement Framework (EGEF), acceptable to the World Bank, has been prepared to address potential adverse social impacts on ethnic minorities that may occur due to the implementation of the project, and in order to ensure members of these ethnic groups benefit from the project in a culturally appropriate way. The EGEF equally applies to non-structural investments planned under sub-component 1.2, such as land use planning, which may have an adverse impact on land or natural resources occupied or used by ethnic communities. The EGEF requires that special measures be established to ensure that the interest of ethnic minorities are protected. The identification of potential impacts and mitigation measures will be based on a social assessment and a process of free, prior, and informed consultation, in accordance with the requirements of OP 4.10.

Involuntary Resettlement OP/BP 4.12

Yes

There may be minor land acquisition and possibly the relocation and resettlement of project affected people and their households due to the construction of riverbank protection and embankments, flood gates, weirs, river-side parks, and drainage canals, and hydromet stations. It is also possible that non-structural investments planned under sub-component 1.2 (e.g. in land use planning) could ultimately result in land use change or household relocation. Therefore, the World Bank's policy on Involuntary Resettlement is triggered. Because the exact location these investments is unknown at preparation and designs will not be prepared until implementation, it is not possible to identify site specific resettlement impacts. A Resettlement Policy Framework (RPF), acceptable to the World Bank, has been prepared by the client, and will apply to all subprojects, and relevant non-structural investments, in order to address potential adverse



		social impacts due to involuntary acquisition of assets and changes in land use. The RPF includes provisions for compensation and rehabilitation assistance, and if land donation is involved, procedures for land contributions
Safety of Dams OP/BP 4.37	No	The project will only construct dams or weirs with a height less than 10m. For these small dams, potential adverse impacts are not addressed through OP/BP 4.37, Safety of Dams, but through OP/BP 4.01 Environmental Assessment, and hence this policy is not triggered. Dams or weirs will only be constructed if the Environmental Assessment confirms that there would be no risk or negligible risk of significant adverse impacts due to failure of the structures. Measures will be included in the Environmental Management Plan, as applicable in accordance with OP/BP 4.01 Environmental Assessment. Generic safety measures will be designed by qualified engineers and agreed upon with the Borrower.
Projects on International Waterways OP/BP 7.50	Yes	As the project may have an impact on tributaries of the Mekong Basin, the project will issue a riparian notification as per OP/BP 7.50 utilizing, as appropriate, the Mekong River Commission mechanisms. Notifications letters have been sent to Myanmar, Cambodia, Thailand, Vietnam, China and the Mekong River Commission.
Projects in Disputed Areas OP/BP 7.60	No	The sub-projects do not take place in disputed areas.

**KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT**

**A. Summary of Key Safeguard Issues**

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

**Involuntary Resettlement (OP/BP4.12):** There may be minor land acquisition and possibly the relocation/resettlement of affected people and their households due to the construction of riverbank protection and embankments, flood gates, weirs, river-side parks, and drainage canals, and hydromet stations.

**Indigenous Peoples (OP/BP4.10):** The Nam Ou Basin and Muang Xay are home to multiple ethnic groups. The sub-projects of Components 1 and 2 may directly or indirectly impact communities which are home to members of some of these ethnic groups.

**Environmental Assessment (OP/BP4.01):** Significant negative environmental impacts are not anticipated and impacts will be limited mainly to dust, noise, household business disturbance, and waste during construction. These issues are



moderate and site specific. EIAs will be prepared as required. The ESMF provides a generic EMP to guide impact screening and identify measures and instruments to mitigate potential impacts. Expected safeguard instruments to be developed under the project include ESMPs and the ECoP. References to these instruments will be incorporated into the bidding documents to inform contractors of their obligations to comply with the national/World Bank safeguard requirements.

Natural Habitats OP/BP 4.04: Since natural habitats along river banks will potentially be impacted by the proposed civil works, this policy is triggered. Compliance will be ensured through the application of the ESMF.

Pest management OP/BP 4.409: The project will not lead to an increased use of pesticides.

Physical Cultural Resources (OP/BP 4.1): There is a possibility that PCR could be found during construction of infrastructure, especially in the indigenous people's areas. In addition to having a chance finds procedure, the project will undertake prior due diligence (surveys) to gauge existence of PCR and through soliciting inputs on PCR from local communities, country profiles and online resources at detailed design stage.

Safety of Dams (OP/BP 4.37): The project will only construct dams or weirs with a height less than 10m. Potential adverse impacts will therefore be addressed through OP/BP 4.01. Generic safety measures will be designed.

Projects on International Waterways (OP/BP 7.50): Project may have an impact on Mekong Basin tributaries, and will issue a riparian notification as per OP/BP 7.50. Notifications letters have been sent to Myanmar, Cambodia, Thailand, Vietnam, China and the Mekong River Commission.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: The physical works under Component 1 will entail flood protection infrastructure in Muang Xay, Oudomxay Province, including riverbank protection and embankments, flood gates, weirs, river-side parks, and drainage canals. Component 2 will include physical investments in the Nam Ou River Basin: hydromet stations will be installed and provincial offices and their facilities including ones in Luangprabang Province will be upgraded. Component 1 and 2 are unlikely to create any significant negative environmental and social impacts, and the project is proposed to be classified as Category B. Based on the experience in similar projects elsewhere and the understanding of the nature and potential impact of the types of subprojects envisaged under this project, these are not likely to have significant adverse environmental and social impacts that are sensitive, diverse or unprecedented. The highest envisaged EA category is B. The project's safeguards approach is thus designed to ensure compliance and sustainability of category B (and C) subprojects. In the unlikely case that a subproject of EA category A would be proposed, it would be considered ineligible for project's support. Expected impacts are limited to dust, noise, household business disturbance, and waste during construction. These issues are minor and site specific. There may be minor land acquisition and possibly the relocation and resettlement of project affected people (PAP) and their households (PAH) due to the construction of riverbank protection and embankments, flood gates, weirs, river-side parks, and drainage canals, and hydromet stations. Safeguards policy frameworks (ESMF, RPF, EGEF) to be applied under the project have been prepared by MPWT with support from a consulting firm. These policy frameworks are designed to guide impact screening or assessment and identification of mitigation measures to be documented in subsequent instruments as required. The final versions of ESMF, RPF and EGPF were disclosed before appraisal.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. Environmental and social considerations are being carefully considered throughout the project design and feasibility assessments. Greening approaches will be integrated into flood protection construction designs in order to enhance



environmental benefits and minimize adverse impacts. The use of multi-purpose design will be encouraged for enhanced drainage or water retention features. Sourcing of materials will also be considered carefully to minimize negative impacts and maximize positive ones.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

Given that specific sub-projects and locations are not known at the time of appraisal, GoL prepared an ESMF, based on the results of a Preliminary Environmental and Social Assessment that provides guidelines to ensure that the project is implemented in an environmentally and socially sustainable manner in line with World Bank and Government safeguards policies. The ESMF provides a generic EMP, EGEF, and RPF to guide impact screening and identify measures and instruments to mitigate potential impacts. Expected safeguard instruments to be developed under the project include ESMPs and ECoP. References to these instruments will be incorporated into the bidding documents to inform the contractors of their obligations to comply with the national and World Bank safeguard policy requirements. ESIA's will be prepared under the project as required. For Component 5, an emergency operations manual will detail implementation of emergency activities, including safeguards compliance. The Manual will be prepared during implementation and adopted by the GoL before making any request to access funds from this component.

The MPWT has lead responsibility for implementation of the safeguards instruments. DOW of MPWT with the Provincial Department of MPWT Oudomxay Waterway Sector Project Implementation Unit will develop and implement the ARAP/RAP in the respective footprint for each sub-project initiative according to the policies and procedures articulated in the RPF. Compensation will be implemented and managed by the Provincial and district Resettlement Committee. Village Resettlement Sub-committees will also be established as needed in villages where land acquisition and resettlement will occur, and will facilitate compensation and consultation with the project affected people and their households and manage the grievance redress mechanism at the village level. The implementing agencies will be responsible for the preparation of Social Assessments and EGDPs based on a process of Free, Prior and Informed Consultation. Impacts such as river bank erosion / sedimentation, water quality, and natural habitat changes are anticipated and will require monitoring. During construction activities, issues relative to noise and air pollution, construction site run off water, waste management and garbage will all require prior planning. An independent consultant will be hired to develop a monitoring process, utilizing both ECoP and EMP's, with other tools as deemed necessary.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

A series of public consultations with stakeholders, including women and ethnic minorities, were held in Vientiane on June 20, 2016, and on September 22, 2016, and in Oudomxay in June 21-24, 2016 to discuss the prepared safeguard instruments namely the ESMF, RPF, and EGEF. Results from this free, prior and informed consultation process suggests that stakeholders and potential project affected people largely support the project development and implementation.

**B. Disclosure Requirements**

**Environmental Assessment/Audit/Management Plan/Other**

Date of receipt by the Bank	Date of submission to InfoShop	For category A projects, date of distributing the Executive Summary of
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		the EA to the Executive Directors
27-Mar-2017	27-Mar-2017	
<b>"In country" Disclosure</b> Lao People's Democratic Republic 24-Mar-2017 Comments		
<b>Resettlement Action Plan/Framework/Policy Process</b>		
Date of receipt by the Bank 27-Mar-2017	Date of submission to InfoShop 27-Mar-2017	
<b>"In country" Disclosure</b> Lao People's Democratic Republic 24-Mar-2017 Comments		
<b>Indigenous Peoples Development Plan/Framework</b>		
Date of receipt by the Bank 27-Mar-2017	Date of submission to InfoShop 27-Mar-2017	
<b>"In country" Disclosure</b> Lao People's Democratic Republic 24-Mar-2017 Comments		
<b>C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)</b>		
<b>OP/BP/GP 4.01 - Environment Assessment</b>		
Does the project require a stand-alone EA (including EMP) report? Yes		





If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

**OP/BP 4.04 - Natural Habitats**

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

**OP/BP 4.11 - Physical Cultural Resources**

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

**OP/BP 4.10 - Indigenous Peoples**

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

NA

**OP/BP 4.12 - Involuntary Resettlement**

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

**OP 7.50 - Projects on International Waterways**

Have the other riparians been notified of the project?

Yes

If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal



Department, and the memo to the RVP prepared and sent?

NA

Has the RVP approved such an exception?

NA

### **The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

### **All Safeguard Policies**

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

## **CONTACT POINT**

### **World Bank**

Henrike Brecht  
Senior Infrastructure Specialist

Olivier Mahul  
Lead Financial Sector Economist

Zuzana Stanton-Geddes  
Disaster Risk Management Specialist



**Borrower/Client/Recipient**

Lao People's Democratic Republic (Lao PDR)  
Angkhansada Mouangkham  
Deputy Director General, External Finance Department  
angkhansada@yahoo.com

**Implementing Agencies**

Ministry of Public Works and Transport  
Dr. Bounchanh Sinthavong  
Minister  
bounchanh.s@hotmail.com

Ministry of Natural Resources and Environment  
Khanmany Khounphonh  
Director General  
k.khanmany@gmail.com

Ministry of Finance  
Angkhansada Mouangkham  
Deputy Director General, External Finance Department  
angkhansada@yahoo.com

Ministry of Planning and Investment  
Kikeo Chanthaboury  
Vice Minister  
kikeo@mpi.org

**FOR MORE INFORMATION CONTACT**

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

**APPROVAL**

Task Team Leader(s):

Henrike Brecht  
Olivier Mahul  
Zuzana Stanton-Geddes



**Approved By**

Safeguards Advisor:	Peter Leonard	30-Mar-2017
Practice Manager/Manager:	Abhas Kumar Jha	30-Mar-2017
Country Director:	Ulrich Zachau	31-Mar-2017

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**Note to Task Teams:** End of system generated content, document is editable from here.