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

Appraisal Stage | Date Prepared/Updated: 02-Apr-2017 | Report No: PIDISDSA20423



**BASIC INFORMATION**

**A. Basic Project Data**

Country Myanmar	Project ID P160931	Project Name Myanmar Southeast Asia Disaster Risk Management Project	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 03-Apr-2017	Estimated Board Date 15-Jun-2017	Practice Area (Lead) Social, Urban, Rural and Resilience Global Practice
Lending Instrument Investment Project Financing	Borrower(s) Myanmar	Implementing Agency Ministry of Planning and Finance	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to improve drainage services and the structural performance of selected public buildings in Yangon, and enhance the capacity of the Government to facilitate disaster response. The Project constitutes a part of a regional program designed to help reduce the impacts of natural hazards in Southeast Asia.

Components

- Financing Resilience and Disaster Risk Insurance
- Integrated Urban Flood Risk Management
- Safer Public Facilities and Critical Infrastructure
- Knowledge and Project Management
- Contingent Emergency Response Component

**Financing (in USD Million)**

Financing Source	Amount
Global Facility for Disaster Reduction and Recovery	1.00
International Development Association (IDA)	124.00
<b>Total Project Cost</b>	<b>125.00</b>

Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue



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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 Myanmar, Cambodia and Lao PDR (Annex 6).** 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, Myanmar, Cambodia and Lao PDR face particularly high annual average losses, in excess of 0.7 percent of their GDP. This Series of Projects, comprising the Myanmar, Cambodia and Lao PDR 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 Resilience 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 and/or Municipalities 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.
- 2. Despite strong growth in recent years, Myanmar remains one of the poorest countries in Southeast Asia with per capita Gross Domestic Product (GDP) of US\$1,204 (2015).** Growth has been driven by economic reforms, public consumption and private investment, easing to 7 percent in 2015-2016, due to a shock from heavy floods and landslides, a slowdown in investment flows linked to elections, and external trends such as lower commodity prices. Following elections in November 2015 won by the National League for Democracy, a new administration assumed office in April 2016. Growth is expected to accelerate to above 8 percent in 2017–2018, supported by increased investment and by rapid expansion in the services sector, including transportation, banking, and telecommunications.<sup>1</sup> However, more than a third of the population, or 19 million lived in poverty in 2009/2010, unable to meet their basic needs.<sup>2</sup> The rate of poverty was estimated to be between 25.6 percent and 37.5 percent, with high concentration in rural and conflict-affected areas, and high variability across geographic zones. The poverty rate for the Yangon Region is 34 percent.<sup>3</sup> Access to basic services remains a challenge in both rural and urban environments.
- 3. Disasters in Myanmar have far-reaching impacts on livelihoods and drain Government resources.** Myanmar ranks 2<sup>nd</sup> out of 187 countries in the 2016 Global Climate Risk Index<sup>4</sup> and 9<sup>th</sup> out of 191 countries in

<sup>1</sup> World Bank. 2016. East Asia and the Pacific. Economic Update (October).

<sup>2</sup> Estimate depends on methodology used. See World Bank. 2014. *A Systematic Country Diagnostic*.

<sup>3</sup> Estimate depends on methodology used. See World Bank. 2014. *A Systematic Country Diagnostic*.

<sup>4</sup> GermanWatch.2016. Global Climate Risk Index 2016. <https://germanwatch.org/fr/download/13503.pdf>.



the INFORM Index for Risk Management.<sup>5</sup> Over the past 25 years, Myanmar has suffered 24 disaster events affecting more than 4 million people and causing US\$4.7 billion in damages.<sup>6</sup> A preliminary financial risk assessment estimated expected annual economic losses of over US\$184 million due to natural disasters, equivalent to 0.9 percent of GDP.<sup>7</sup> From July to September 2015, the country suffered from severe floods and landslides, cutting economic growth by 0.8 percentage points, and disproportionately affecting segments of the population that were already poor and vulnerable. The impact of climatic events in the last two successive monsoon seasons has resulted in some communities experiencing substantial losses, with negative income and welfare implications for both smallholder and landless households in the affected areas.<sup>8</sup> Floods also resulted in substantial increases in the price of basic foods, especially rice.

**4. To reduce disaster impacts, a comprehensive approach with pre- and post-disaster measures is needed.** Ongoing urbanization and growth of assets highlights the need to invest in disaster and climate resilience. While the majority (66 percent) of the population is still rural<sup>9</sup>, Myanmar is rapidly urbanizing with high demand for infrastructure and services.<sup>10</sup> Much development is unplanned, occurs in hazardous areas and is not in line with standards and regulations. The integration of risk management solutions into public investment planning, in particular in the rapidly growing Yangon City, are needed to reduce the costs of disasters while improving services for the population. At the same time, appropriate disaster response financing instruments, which help the Government to in disaster response, are lacking. These instruments are needed, for example, to finance social protection in post-disaster situations to avoid people falling back into poverty.

#### Sectoral and Institutional Context

**5. Recognizing the links between development, sustainability and resilience, Myanmar has been adjusting its legal framework to promote risk reduction across sectors but implementation on the ground remains a challenge.** In 2013, the GoM enacted the Natural Disaster Management Law, with the supporting Disaster Management Rules issued in July 2015. The rules require all ministries and administrative units to prepare disaster management plans, however, enforcement and application of both the Law and Rules are limited. The mandate of the National Disaster Management Committee (NDMC) is broad, and given frequent disasters, it is heavily focused on post-disaster assistance. Weak capacity, a lack of resources, insufficient analytics and a focus on disaster response hamper the mainstreaming of resilient principles across sectors. A National Building Code to improve disaster resilience in new buildings has been drafted, but it has not yet been formally adopted.

**6. The role of the Ministry of Planning and Finance (MoPF) in DRM is still limited, but global experience suggests that high-level Government agencies need to play a critical role in increasing resilience.** MoPF's contribution and leadership is currently marginal in critical areas such as convening line ministries, creating

<sup>5</sup> INFORM. 2016. Results Report 2016 ([link](#)); Myanmar Country Profile ([link](#)).

<sup>6</sup> Preliminary World Bank analysis based on data from EM-DAT database.

<sup>7</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>8</sup> World Bank. 2016. East Asia and the Pacific. Economic Update. October.

<sup>9</sup> World Bank. Rural population data 2015. Accessed November 2016. <http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS>

<sup>10</sup> Between 2000 and 2010, population in urban areas in the country increased from 4.7 million to 6.2 million. World Bank. 2015. *East Asia's Changing Urban Landscape: Measuring a Decade of Spatial Growth.*



DRM awareness, prioritizing strategic risk reduction investments, allocating necessary resources for DRM, and promoting disaster risk finance instruments and policies to secure access to immediate funding for disaster response and recovery post disasters. In particular, two areas require increased capacity-building to tackle the increasing disaster and climate risks: (i) mainstreaming resilience into investment planning, and (ii) strengthening disaster risk financing and insurance.

**7. Mainstreaming resilience into investment planning is critical to ensure the country's assets and services develop in a safe, resilient and sustainable way so that they can bring the desired benefits to its peoples.** It is recognized that investing in disaster resilience yields a triple dividend of (i) losses avoided when disasters occur; (ii) stimulating economic development with lowered disaster-related investment risk; and (iii) through synergies of economic, social and environmental co-benefits, even in absence of a disaster occurring for several years<sup>11</sup>. There is need for the ongoing and future development of Myanmar, and Yangon in particular, to take into account the existing and future risks by avoiding high risk areas through proper land-use planning, mitigating physical risks through design, construction and proper maintenance and coordination, and increasing institutional capacity and preparedness. In the longer term, this will enable the city to yield resilience dividends, such as the potential increase in land values in areas that have undergone drainage infrastructure improvement. MoPF in its overarching and coordinating role is well-placed to promote resilient investment decisions, implemented by respective line ministries. Policies and technical guidance are however still lacking to protect key economic sectors and assets at risk, and ensuring that urban development is safe and sustainable. In this context a Myanmar National Building Code has been prepared and is currently being translated into Myanmar language prior to formal government approval. Technical Assistance will be provided to revise Planning Controls and Building Regulations to incorporate Sustainable Drainage systems to minimize rain water run-off.

**8. Strengthening disaster risk finance would help Myanmar to systematically manage the financial impact of disasters and improve its post-disaster response financing capacity.** Myanmar has limited financial capacity to respond to disaster events. The government has established a National Disaster Management Fund (the 'Reserve Fund') and allocates a contingency budget, but it remains exposed to catastrophic events, relying heavily on international donor assistance for response, relief and recovery. Emergency response costs, particularly floods, can cause significant short-term funding gaps and divert the use of public funds. Given the limited ability of the government to access domestic and international credit sources, insurance markets, or raise tax revenue after disasters, recovery and reconstruction costs of past disasters have been partially met through budget reallocation by line agencies and donor assistance, which is often unpredictable or reallocated from existing projects. This causes delays in government response and impacts financing of development priorities. When major disaster costs remain unaddressed, they are absorbed by the affected populations, most likely making the most vulnerable even worse off.

**9. Yangon is an important growth pole in the country, and is experiencing rapid urbanization.** Yangon is triple the size of the country's second largest city, Mandalay, and contributes approximately 25 percent of the country's GDP, with over 90 percent of Yangon's economy made up of industry and services. As the country's commercial and financial hub, as well as its gateway for tourism, Yangon is expected to continue capturing a dominant share of Myanmar's economic development. As has been the case in other industrializing economies,

<sup>11</sup> ODI, GFDRR and The World Bank, 2015. *The Triple Dividend of Resilience*.



rapid urbanization has accompanied economic growth. Between 2000 and 2010, Yangon's population increased from 2.6 million people to 3.4 million. Other estimates indicate that the city's population grew at a rate of 2.1 percent per year, exceeding the national population growth rate of 0.9 percent. According to the 2014 Myanmar Population and Housing Census, Yangon Region has a population of 7.36 million, 70.1 percent of which are urban. Coupled with high economic growth, the growing urban population has placed the city's infrastructure under strain, and urban service delivery does not cover the population of the entire region. For instance, only 40 percent of YCDC's population has access to YCDC supplied drinking water, while 71 percent of the population has access to electricity. The Yangon City Development Committee's (YCDC) administrative area comprises 33 Townships under 4 districts out of the 45 Townships in Yangon region. YCDC delivers the vast majority of municipal services, including drainage, water supply, sewerage, and solid waste management. The other 12 townships are administered directly by the Yangon Regional Government.

10. **Yangon is in many ways unprepared for its growth.** In the absence of a comprehensive land use and infrastructure plan, spatial expansion has been rapid and fragmented, and is not coordinated with infrastructure provision. While the city adopted A Strategic Urban Development Plan for Greater Yangon in 2013, prepared with support of Japan International Coordination Agency (JICA), translating the plan into comprehensive land use and infrastructure investments remains a challenge. Since the preparation of the plan good progress has been made in improving water coverage and quality, electricity supply, widening roads and constructing flyovers and very recently improvements have been made to the bus networks. The government has since formed a committee of relevant agencies, including YCDC and the national government's Department of Urban and Housing Development, to develop a land use plan including the preparation of Planning guidelines and Building Regulations. There is also a lack of robust risk information to ensure that existing stock of vulnerable infrastructure can be upgraded in a resilient and cost-effective manner, and that new development and services are located in safe areas in accordance with safe designs and construction standards. The city is at risk of flooding with extreme events occurring 6 to 10 times per year when heavy rainfall coincides with high tides during the monsoon season when the rivers are in flood. The prevailing geological structures, along with surface geological conditions associated with an alluvial delta, soil characteristics, and tectonic setting make Yangon also a highly earthquake-prone area.

11. **This project will support key Government agencies in mainstreaming of DRM into urban development and strengthening financial resilience.** The project will support the technical capacity of MoPF to develop stronger DRM analytics and disaster risk finance instruments and policies to help protect government finances and improve their rapid response financing capacity post disaster. These upstream regulatory planning tools will be complemented with downstream resilient investments in public infrastructure in Yangon City, to strengthen its policies and guidelines for public investment planning and facilitate integration of resilient principles into sectoral development. The resilient approaches will be demonstrated through the rehabilitation of urban drainage as part of an integrated urban flood risk management approach to withstand regular flooding, reducing regular reconstruction costs, and decreased flood impact on the population. Structural performance of selected critical public buildings will also be strengthened. These structural investments will be complemented with non-structural investments taking the form of institutional capacity-building to help mainstream resilience with a long-lasting positive impact on development. Earthquake resilience is an integral part of the new Myanmar National Building Code.



### 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.

### Project Development Objective(s) (From PAD)

The Project Development Objective (PDO) is to improve drainage services and the structural performance<sup>12</sup> of selected public buildings in Yangon, and enhance the capacity of the Government to facilitate 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

### D. Project Description

#### **Component 1. Strengthening Financial Planning for Disaster Resilience (US\$20 IDA Credit + US\$1 million TF Grant)**

12. The component will increase the disaster resilience of Myanmar by enhancing MoPF's capacity to integrate disaster and climate resilience into budgets and sectoral investment planning, and enhance the Government's capacity to meet post-disaster funding needs. This component will be implemented by MoPF.

13. *Sub-component 1.1. Support for Strengthening Disaster Resilience (US\$1 million TF Grant)* will: (i) build capacity in MoPF to systematically mainstream disaster and climate resilience into public investment planning and development processes, in coordination with other relevant line Ministries and NDMC, (ii) build capacity on disaster risk financing and insurance within MoPF, including supporting the preparation and implementation of a national disaster risk finance strategy; and (iii) facilitate country engagement in the preparation and establishment of a regional disaster risk pooling vehicle, such as the proposed Southeast Asia Disaster Resilience Insurance Facility (SEADRIF) to provide participating countries with affordable post-disaster rapid response financing. This sub-component will be financed through recipient-executed trust fund grants.

14. *Sub-component 1.2. Payment of Disaster Risk Insurance Premium (US\$20 million IDA Credit)* will assist the GoM in securing access to sovereign disaster risk insurance by financing its premium for three years or more to an international risk carrier such as the proposed SEADRIF or through the World Bank Treasury. This sub-component is important to show commitment of Myanmar in moving this initiative forward, especially as significant donor funding would be required to establish and capitalize a regional catastrophe risk pool.

#### **Component 2: Integrated Urban Flood Risk Management (US\$77 million IDA Credit)**

15. This component will help reduce flood risk by improving and increasing the capacity of drainage infrastructure in Yangon, and introducing an integrated approach to flood risk management. The YCDC Engineering Department of Roads and Bridges (DRB) will implement this component.

<sup>12</sup> 'Structural performance' derives from specific criteria and structural standards that the building is designed and retrofitted to meet, including desired targets to limit the level of damage in the event of a design-level earthquake.



16. *Sub-component 2.1. Drainage Improvements (US\$73 million)* will upgrade and increase the capacity of drains in select locations within 6 townships of Yangon downtown area including providing, where appropriate, retention storage and installing automatic tidal gates and high capacity storm pumps. A Supervisory Control and Data Acquisition (SCADA) system will be installed to enable remote monitoring and operation of drainage infrastructure. The project also proposes to track the impact of the drainage improvements on land values within the project area in downtown Yangon.

17. *Sub-component 2.2. Enhancing Flood Risk Management Planning (US\$4 million)* will include capacity building for the DRB including: (i) developing and operationalizing an improved asset management system to better manage preventative maintenance of the civil and mechanical infrastructure, and identifying and procuring specialized equipment designed for local conditions for improved maintenance of drains; (ii) promoting the concept of sustainable drainage systems by introducing planning regulations and building codes to reduce on and off site storm water runoff to drains from new and existing developments and buildings; and (iii) identifying and preparing detailed designs for climate resilient drainage infrastructure for the next priority of flood prone areas in Yangon including areas proposed for the expansion of Yangon to accommodate a doubling of its population in the next 25 years and taking account of any changes that have occurred since the Sewerage and Drainage Master Plan was prepared in 2014.

**Component 3: Safer Public Facilities and Critical Infrastructure (US\$22 million IDA Credit)**

18. This component will reduce disaster risk in Yangon by: (i) retrofitting priority public buildings to ensure a targeted level of performance during a design-level earthquake, and (ii) supporting risk assessments for lifeline infrastructure. The YCDC Engineering Department for Buildings (DB) will implement this component.

19. *Sub-component 3.1. Risk Reduction for Public Facilities and Infrastructure (US\$20 million)* will reduce seismic risk in Yangon through: (i) retrofitting of priority public buildings to improve the structural performance of critical public facilities and infrastructure, which are important to the city's social and community services, and are regularly used/occupied by large numbers of people. These may include approximately 10 important civic centers and facilities that house lifeline infrastructure. A long-list has been prepared, per criteria described in Annex 1, and specific buildings will be selected within the first 3 months of project effectiveness. The construction works will be limited to the structural strengthening (seismic retrofitting) of existing public buildings. This means increasing the capacity of the structural frame to resist larger earthquake forces than those for which the building was originally designed and built.

20. *Sub-component 3.2. Risk Assessment of Critical Infrastructure and Institutional Capacity Building (US\$2 million)* will finance a (i) multi-hazard risk assessment of lifeline/critical infrastructure (such as water supply or transport); and (ii) institutional capacity building for improving the building information databases. A detailed risk assessment will help identify retrofitting and strengthening needs for system continuity, prioritize future investments, and provide options for Government and development partners to support a comprehensive, long-term risk reduction program encompassing upgrading, retrofitting, or replacement of network-critical infrastructure elements.

**Component 4: Project Management (US\$5 million IDA Credit)**





21. This component will support the day-to-day implementation of the project, and build institutional capacity to sustain the implementation of the project beyond the life of the project. It will cover project management, coordination, procurement, financial management (FM), technical and safeguards aspects, monitoring and evaluation (M&E), reporting and knowledge exchange.

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

22. 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 for the specific eligible disaster, detailing fiduciary, safeguards, monitoring and reporting, and any other necessary implementation arrangements.

**Project Cost and Financing**

23. The lending instrument will be Investment Project Financing with a six- to seven-year implementation period (to be confirmed at appraisal). In addition to the IDA Credit of US\$124 million equivalent, for sub-component 1.1, a US\$1 million trust-funded recipient-executed Grant will be provided to support capacity building and technical assistance for financing resilience and disaster risk insurance.

**E. Implementation**

Institutional and Implementation Arrangements

24. **Overall organization and coordination:** Although both the approach and coordination of the broader SEA DRM project is national, most of the implementation of the proposed project components will take place at the Yangon Region level via the Yangon City Development Committee (YCDC), as a department of the Yangon Regional Government. YCDC will form a Project Secretariat to coordinate with project implementation departments and ministries. The Project Secretariat will report to the Yangon Mayor. The YCDC Secretary will act as the Project Director, supported in day to day operations by a Project Manager located within DRB. Detailed institutional and implementation arrangements will be described in the Project Operation Manual (POM) which will be finalized before project negotiations. For Component 5, an emergency operations manual will be developed which will detail the implementation of emergency activities, including fiduciary, M&E, and safeguard compliance aspects within the first year after effectiveness.

25. **Implementation:** MoPF will implement Components 1 and 5. Components 2, 3 and 4 will be implemented by YCDC. Component 2 will be implemented by the YCDC DRB; Component 3 will be implemented by the YCDC DB; and Component 4 by the YCDC Budget and Accounts Department. The Heads of Departments will be responsible for component management and technical coordination, fiduciary and compliance with safeguards for all activities under their component. They will be supported by their current department staff and safeguards experts hired under the project.

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

Component 1 on strengthening financial planning for disaster resilience will support the Government to integrate disaster and climate resilience into budgets and sectorial investment planning, and enhance its capacity to meet post-disaster funding needs through payment of an insurance premium, specifically, financing the premium for the Government to purchase catastrophe risk insurance for 6 years. As the component does not finance any downstream physical investments, no safeguards are triggered. Component 2 will finance investments in flood protection infrastructure in Yangon City, specifically, drainage investments in prioritized locations within 6 townships of Yangon downtown area including installing automatic tidal gates and high capacity storm pumps. The city is at risk of flooding with extensive events occurring 6 to 10 times per year when heavy rainfall coincides with spring tides during the monsoon season when the rivers are in flood. The prevailing geological structures, along with surface geological conditions associated with an alluvial delta, soil characteristics, and tectonic setting make Yangon also a highly earthquake-prone area. The proposed improvement of drainage infrastructure is expected to have some temporary limited impact on the wetlands. 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 integrated flood risk management in Yangon. Component 3 will include retrofitting of priority public buildings in Yangon City. These may include important civic centers, historic buildings and lifeline infrastructure. A long-list has been prepared, and specific buildings will be selected within the first 3 months of project effectiveness. YCDC has prepared an ESMF and an RPF 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.

**G. Environmental and Social Safeguards Specialists on the Team**

Bunlong Leng, Martin Henry Lenihan

**SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The Environmental Assessment policy is triggered due to potential environmental impacts caused by physical improvements under Component 2: rehabilitation of municipal drainage, pumping stations, and flood gates; and physical improvements under Component 3: retrofitting public facilities such as historic buildings, civic



centers and lifeline infrastructure.

Asbestos Management. Construction works in Myanmar are known to have used asbestos containing material (ACM) which can have adverse social as well as environmental impacts if not handled properly during retrofitting and disposal in a safe manner. Particularly, old public buildings and structures, which are proposed for retrofitting, may have asbestos-containing materials. To be aligned with the World Bank's Guidance on Asbestos Management, the ESMF includes a protocol for assessing and managing asbestos. For example, The ESMF includes a protocol requiring YCDC to survey the selected historic public facilities for retrofitting investments in order to quantify the risk posed by asbestos that may be present in existing structures. The protocol also requires YCDC to determine appropriate proper handling and disposal of hazardous materials as well as occupation health and environmental mitigation measures for construction workers during the civil work. Asbestos, a fibre mined, has been widely used worldwide as a construction material and insulator because of its strength, durability and heat resistance characteristics. In recent years, evidence on the adverse health effects of exposure to asbestos has been mounting globally leading to urgent calls to cease production of the most-harmful asbestos types, limit the use of less-harmful asbestos (e.g., discontinued spraying of asbestos), and to impose strict exposure standards for workers handling raw asbestos and asbestos-containing products. Occupational exposure to asbestos by inhalation can cause asbestosis (scarring of the lung tissue), lung cancer, and mesothelioma (cancer of the lung's lining).

Significant negative environmental impacts are unanticipated and impacts will be temporary and reversible provided that the proposed physical improvements will be done within the existing infrastructure alignments and structure. Thus, the project is classified as "Category B". Types of initial costs of improving the drains and public facilities, under Components 2 and 3, have been identified.



However, the final list of civil works, detailed designs and exact locations of the sub-project investments are not yet determined by the appraisal stage. Consequently, an environmental and social management framework (ESMF) has been prepared by the client, YCDC. In the unlikely case that a subproject of EA category A would be proposed, it would be considered ineligible for project financing. The project impacts could be limited to nuisance, household and business disturbance, sourcing of materials, and waste during construction, which are minor issues and site-specific. The environmental and social concerns can be managed by applying the ESMF, which includes generic environmental and social management plan (ESMP) or Environmental Code of Practice (ECOP). The ESMP can cover a protocol to properly handle asbestos-containing materials, a procedure to preserve historical and cultural value of public building and a chance-find procedure of physical cultural resources.

Natural Habitats OP/BP 4.04	Yes	According to JICA’s Sewerage and Drainage System Master Plan (2014:12-9), and cross-referencing the IUCN Red List database, there are three threatened species of animals and one threatened plant species in Greater Yangon. However, these species live in forests in Greater Yangon and are not expected to be affected by the proposed project. The proposed physical rehabilitation of open channel under Component 2 may have some temporary impacts on wetlands along the open drainage, creek or river alignments. The ESMF will help ensure that sub-projects are screened and designed in a way to avoid or minimize any potential disruption to the wetlands.
Forests OP/BP 4.36	No	The investments in Components 2 and 3 will be located in the downtown or urban area of Yangon. No investment activities under this project are anticipated to affect or to be in forest areas. .
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	This policy is triggered for two reasons. The first reason is that Component 3 will assist YCDC to preserve structures with significant architectural and/or historic value. Thus, the retrofitting solutions



will not only consider the safety of continued use of the building, but will also need to sufficiently preserve the architectural, historical and aesthetic integrity of the buildings. The ESMF requires YCDC to engage the Yangon Heritage Trust, a non-profit organization, regarding the assessment of potential vibration impacts on PCRs and mitigation measures. The ESMF requires YCDC to not only consider the disaster resilience of the public facilities, but also to sufficiently preserve the architectural, historical and aesthetic integrity of the existing structures. The second reason is due to a possibility that physical cultural resources could be found during construction civil work. Therefore, the ESMF also includes a provision of a chance-finds procedure.

Indigenous Peoples OP/BP 4.10

No

Given that the project will be taking place in the highly urbanized downtown area of the city of Yangon, there are no ethnic groups that confirm to the four criteria outlined in the World Bank Policy on Indigenous People in the project area. This was confirmed by the Preliminary Environmental and Social Assessment recently undertaken. Regardless of whether or not the policy on indigenous people is triggered, the Environmental and Social Management Framework will include measures to support culturally appropriate consultations and grievance redress mechanisms with the diverse groups present in Yangon.

Involuntary Resettlement OP/BP 4.12

Yes

Land acquisition or resettlement impacts are expected to be minimal, with investments focused mainly on underground drainage systems, and possibly unlined open channels that are regularly dredged and therefore free of encroachment. Nonetheless it may be necessary to acquire small amounts of land for the purpose of installing tidal gates and storm pumps. To access drainage systems and channels, it may be necessary to displace informal residential structures or commercial activities that are encroaching on the right of way. The project may also impact shops and small businesses. Because the detailed designs of the investments to be made will not be known at the time of appraisal, a resettlement policy framework (RPF) will be applied by all subprojects to address potential adverse social impacts due to involuntary



		acquisition of assets and changes in land use. The RPF will include provisions for compensation and rehabilitation assistance contributions, and will be used as the basis to prepare site specific resettlement plans during implementation when detailed designs and exact location of investments are ready and known.
Safety of Dams OP/BP 4.37	No	The project will not finance or engage in any urban infrastructure improvements that link or relate to dams.
Projects on International Waterways OP/BP 7.50	No	The Project activities will not affect international waterways or tributaries of any known international waterways. Component 2 may finance the improvement of open drainage channel within the existing channel alignments in Yangon. The potential environmental impacts of the improvement civil work will not have implications on downstream river in Yangon as the river has no linkage to any tributaries of international waterway.
Projects in Disputed Areas OP/BP 7.60	No	No activities are planned 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):** Land acquisition or resettlement impacts are expected to be minimal, although it may be necessary to acquire small amounts of land for the purpose of installing tidal gates and storm pumps. It also may be necessary to displace small numbers of informal residential structures or commercial activities that are encroaching on the right of way of drainage systems and channels. The project may also impact shops and small businesses occupying the markets that have been identified for retrofitting under component 3. The provisions of the RPF will also apply to the design of any infrastructure under sub-component 2.2 and 3.2 requiring land acquisition and resettlement.

**Environmental Assessment (OP/BP4.01):** Significant negative environmental impacts are not anticipated and impacts will be temporary and site-specific. The project is classified as Category B. Envisioned impacts include: household business disturbance, sourcing of materials, and construction waste. In the unlikely case that a subproject of EA category A would be proposed, it would be considered ineligible for project’s support. As discussed in the ESMF, any sub-project in Category A would result in ESIA development, which require time and additional consultations to prepare and goes beyond this Project objective as an urgent disaster risk management response.

**Natural Habitats (OP/BP 4.04):** According to JICA’s Sewerage and Drainage System Master Plan (2014:12-9), and cross-referencing the IUCN Red List database, there are three threatened species of animals and one threatened plant



species in Greater Yangon. However, those species live in forest in the Greater Yangon and are not expected to be affected by the proposed project. The proposed physical rehabilitation of open channel under Component 2 may have some temporary impacts on wetlands along the open drainage or creek alignments or river basins.

Physical Cultural Resources (OP/BP 4.11): There is a possibility that physical cultural resources could be found during construction given that physical cultural resources may be located in the ground or under the open channel. A chance finds procedure has been established in the ESMF. Public heritage buildings are likely to be selected for retrofitting under Component 3. Detailed retrofit designs solutions will preserve the architectural, historical and aesthetic integrity of the buildings to minimize impacts to the cultural heritage value.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:  
No indirect and/or long term impacts are anticipated.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.  
The project does not require any alternatives as it will finance the improvement of existing drains and public facilities. No new construction is anticipated.

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.

The Implementing Agency, YCDC, with support of safeguards consultants, has prepared an ESMF to meet both the national legislations and the Bank Safeguard Requirements. The ESMF provides guidance and procedures on environmental and social safeguards planning and compliance during the implementation of subproject investments. As subprojects will be proposed for financing during the project implementation period, the Implementing agencies with support of safeguard consultants carried out safeguard screening to identify potential adverse environmental impacts and propose mitigation measures and related monitoring activities. Expected safeguard instruments to be developed for the sub-projects include abbreviated resettlement action plan and environmental and social management plans (ESMP). The ESMP can cover provisions of the excavated waste material management plan, chance-find procedure, and handling procedure of asbestos-containing materials. The sub-project instruments will be incorporated into bidding documents to inform the contractors of their obligations to comply with the national and Bank safeguard policy requirements. YCDC with support from the safeguards consultants has prepared a Resettlement Policy Framework (RPF). The RPF will be used as the basis to prepare site specific resettlement plans during implementation when detailed designs are ready and the exact location of investments are known. The RPF will also be used as a basis to prepare RAPs for land acquisition or resettlement impacts that may result from next priority flood mitigation investments that are designed under this component, even if their construction is not financed using project funds. For Component 5, an emergency operations manual will detail implementation of emergency activities, including safeguards compliance. The Manual will be prepared within one year of effectiveness and adopted by the GoM before making any request to access funds from this component.

The safeguards consultants will support the Implementing Agency to monitor and document the implementation of the safeguards instruments for the Bank team to review during the implementation support missions.

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

The implementing departments, the World Bank and the safeguard consultant discussed about safeguards and potential sub-projects during the kick-off meeting in Yangon on 2 December 2016. The implementing departments and safeguard consultations conducted a first public consultations regarding the draft ESMF and RPF in Latha and



Botahtaung townships between 16 to 18 December 2016. Stakeholders and different populations were provided information on project objectives, sub project descriptions and component initiatives, potential impacts (both positive and adverse effects). Prior to finalizing the safeguard instruments, a second public consultation meeting will be conducted on 20 March 2017 to discuss the draft ESMF and RPF documents. These draft documents were translated into Burmese language and distributed to national, sub-national and local governments, key stakeholders and civil society organizations, and different populations in advance of (two weeks before) the meeting. Initial results suggest that most of the stakeholders and different populations support the proposed sub-projects. Written records of the consultations are appended in Appendices in the ESMF and RPF.

**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 the EA to the Executive Directors
10-Mar-2017	30-Mar-2017	

**"In country" Disclosure**

**Resettlement Action Plan/Framework/Policy Process**

Date of receipt by the Bank	Date of submission to InfoShop
10-Mar-2017	30-Mar-2017

**"In country" Disclosure**

Myanmar  
10-Mar-2017

Comments

**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)**

**OP/BP/GP 4.01 - Environment Assessment**

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?

Yes

**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 4.12 - 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

**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

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**APPROVAL**

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