



# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 26-Jun-2019 | Report No: PIDC26726

**BASIC INFORMATION****A. Basic Project Data**

|                                                      |                                                |                                                                                              |                                                                  |
|------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Country<br>Cambodia                                  | Project ID<br>P169930                          | Parent Project ID (if any)                                                                   | Project Name<br>Cambodia Road Connectivity Improvement (P169930) |
| Region<br>EAST ASIA AND PACIFIC                      | Estimated Appraisal Date<br>Jul 20, 2020       | Estimated Board Date<br>Oct 15, 2020                                                         | Practice Area (Lead)<br>Transport                                |
| Financing Instrument<br>Investment Project Financing | Borrower(s)<br>Ministry of Economy and Finance | Implementing Agency<br>Ministry of Public Works and Transport, Ministry of Rural Development |                                                                  |

**Proposed Development Objective(s)**

The project development objective is to improve climate resilient road access to economic and human capital development facilities in targeted provinces.

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

|                           |        |
|---------------------------|--------|
| <b>Total Project Cost</b> | 100.00 |
| <b>Total Financing</b>    | 100.00 |
| <b>of which IBRD/IDA</b>  | 100.00 |
| <b>Financing Gap</b>      | 0.00   |

**DETAILS****World Bank Group Financing**

|                                             |        |
|---------------------------------------------|--------|
| International Development Association (IDA) | 100.00 |
| IDA Credit                                  | 100.00 |

Environmental and Social Risk Classification

Concept Review Decision



Substantial

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

## B. Introduction and Context

### Country Context

1. Over the past two decades, Cambodia has experienced macroeconomic stability and remarkable economic growth. Cambodia sustained an average growth rate of 7.6 percent in 1994–2015, ranking sixth in the world. Gross domestic product (GDP) per capita increased fivefold, from US\$300 in 1994 to around US\$1,070 in 2015, the year in which Cambodia reached the lower-middle-income status. The main drivers of growth have been garment exports, agriculture, tourism, and, more recently, construction and real estate. Economic growth eased in the aftermath of the global financial crisis, while remaining strong. In terms of employment, Cambodia has benefited from a large structural transformation, with around 3.6 million new jobs being created in industry and services and 0.7 million in agriculture and fisheries over the past two decades.
2. The sustained economic performance has lifted a large proportion of the population above the national poverty line, but Cambodia is still one of the poorest countries in Southeast Asia. Between 2007 and 2013, the incidence of poverty, as measured by the proportion of the population living below the national poverty line, declined from 47.8 percent to 13.5 percent of the population. Cambodia achieved most of the MDG targets, including those related to poverty reduction, child mortality, and maternal mortality. Targets in primary education have been nearly achieved, whereas areas such as gender equality and environmental sustainability have seen less progress. Most of the poverty reduction occurred during the commodity price boom, when the headcount rate declined by 20 percentage points, driven by a significant hike in the price of rice. Despite this progress, the vast majority of the families that rose above the poverty line did so by a small margin, leaving them at risk in the event of an adverse shock.
3. Cambodia is highly vulnerable to climate change and disaster risks. Around 80 percent of the country is within the Mekong River and Tonle Sap basins, making it especially vulnerable to floods, storms, and droughts. The 2018 World Risk Index ranks Cambodia as the 12th most disaster-prone country among 172 countries. The infrastructure sector is particularly vulnerable to the impacts of disasters. During severe floods in 2014 about 86 percent of total damages occurred in the infrastructure sector, mainly to roads and water and irrigation. The disruption of infrastructure connectivity further significantly impacted the overall economy due the loss of market access of key economic goods such as agriculture products. Climate change projections indicate temperature to increase by 0.7-2.7°C by 2060 as well as the increase of intensity and frequency of extreme precipitation in monsoon season and flooding risks. Economic and social losses related to climate impact may increase if infrastructure planning does not consider climate and disaster risks.

### Sectoral and Institutional Context

4. Improving transport connectivity, both domestically and with neighboring countries, is one of the main development priorities of the Royal Government of Cambodia (RGC) to support sustained economic growth and poverty reduction and become more competitive in regional markets. RGC is implementing its overarching Rectangular Strategy Phase IV (RSP-IV). The strategic areas of RSP-IV are human resource development, economic diversification, promotion of private sector development and employment, and inclusive and sustainable development. Transport connectivity is relevant to all strategic areas of RSP-IV and it is explicitly indicated in the economic diversification agenda. Over the



past decade, substantial investments were implemented for modernization of the transport infrastructure, including the main national road corridors, sea and airport infrastructure, and more recently expanding the focus to improve the secondary and tertiary road network.

5. Despite improvements of past years, transportation costs remain high in Cambodia. Cambodia still lags its peers in quality of transport infrastructure, ranking 112th in the Global Competitive Index. The 2016 World Bank Group Enterprise Survey found that access to transportation is the fifth most severe obstacle for firms in Cambodia. With high economic growth rates and potential, it is projected that Cambodian firms will move 4.1 times more goods in 2030 than in 2016. The transport infrastructure will have to be ready to process this volume of goods. Else, they risk curbing Cambodia's export potential and constraining creation of new and better jobs.
6. Roads are the main mode of transport in Cambodia. Motorcycles and 2-axle vehicles account for most of the traffic. The road network was largely destroyed during the long period of unrest in the 1970s and 1980s. With the advent of peace, Cambodia's initial focus was on reconstruction of the primary and secondary road network, followed by critical provincial and rural links to the main road network. During this reconstruction phase, the emphasis was on quickly building the maximum number of roads without a maintenance system in place, which generated a massive rehabilitation backlog.
7. Cambodia's road network is highly vulnerable to climatic and natural disaster risks. Locating in the low-lying central plains of the Mekong surrounded by mountainous regions, Cambodia's topography and tropical climate make its road network both highly exposed and sensitive to climate induced disasters such as frequent rainfall, flooding, and storms. The southwest monsoon begins in mid-May and lasts through the end of October, bringing over three quarters of the country's annual rainfall. As a result, floods along the Mekong River and its tributaries, as well as from the Tonle Sap Lake are recurrent and often constitute major disasters to the transport network. Annual economic losses in Cambodia because of natural disasters were estimated at 0.7 percent of GDP. The transport infrastructure is usually the hardest hit by disasters, bearing 41 percent of the overall economic losses in the last three main events in 2009, 2013, and 2014.
8. The climate vulnerability of the road network is further compounded by low pavement sealing rate, especially in rural areas. Total share of paved roads in Cambodia is lower than most ASEAN countries. While rural roads include 74 percent of the total network, only about 5 percent of them are paved and a significant part of rural areas are inaccessible during monsoon season. Inadequate maintenance of rural roads due to limited financing increases climate vulnerability of the road assets. Maintenance and preservation of roads is crucial to keep the resilience level of the network both before and after natural disasters.
9. Disrupted market access in rural areas significantly affects income growth and slows poverty reduction efforts. With over 79 percent of population live in rural area (2016), the disrupted connectivity during flooding and other disasters greatly threaten the livelihood of rural households and their access to basic services such as schools, hospitals, and markets. In many places, farm-to-market roads are in poor condition and interrupted during rainy season, not allowing access to production sites. Experience from other countries indicate that improving connectivity of rural roads has been shown to increase agricultural productivity by reducing the travel time to agricultural markets, inducing farmers to adopt modern farming techniques and favor cash crops, and raising market participation.
10. Accessibility constraints in rural areas in Cambodia affect human capital formation. The Human Capital Index suggests that a child born today in Cambodia will be only 49 percent as productive when she/he grows up as she/he



could be if she/he had enjoyed complete education and full health.<sup>1</sup> The baseline accessibility analysis of the project area indicate that only 55 percent of rural population in project provinces can reach high schools and 32 percent can reach referral hospitals and emergency services in 30 minutes time. While a large part of the population lives in rural areas, children in villages miss school and women may not be able to deliver their babies in the hospitals because of all-weather road accessibility constraints in rural area.

11. The socioeconomic cost of road fatalities and disabilities also represents a severe deterrent to poverty alleviation and human capital development. The associated costs of road crashes can send already struggling families deeper into poverty and undermine their paths to prosperity. The estimated rate of road fatalities in Cambodia per 100,000 population has been increasing over the past decade, reaching 17.8 in 2016<sup>2</sup>, which is significantly higher compared to international standards. A significant number of people who lost their lives in road accidents were riders of motorized 2- and 3-wheelers (73 percent) and pedestrians (10 percent). Other statistics indicate that 80 percent of fatalities were men, and 19 percent of fatalities were men between the ages of 20 and 24. In response to these alarming trends, the Government passed a new Road Traffic Law that came into force in January 2016.
12. The Ministry of Public Works and Transport (MPWT) manages national and provincial roads and oversees enforcement of transportation regulations. MPWT manages road construction, while using its own provincial departments, to carry out maintenance activities. In terms of transportation services, the Department of Land Transport at MPWT oversees the enforcement of regulations, while secondary regulation is not sufficiently developed (for example, with regard to overload control). Most of operators on the roads are private such as trucking services, private vehicles, and nonmotorized transport.
13. The Ministry of Rural Development (MRD) is responsible for planning, construction, rehabilitation, and emergency maintenance of all rural roads, while local governments carry out periodic and routine maintenance. While some degree of decentralization is desirable, the intricate and fragmented division of labor and resource allocation to rural roads often results in funding being spread too thinly. This especially affects the maintenance of lower volume rural roads, which often remain in poor condition, making it more difficult for the rural population to access economic opportunities. Overall, annual funding allocations to rural roads are limited mostly to the improvement of limited number of rural roads, with little focus on maintenance.

#### Relationship to CPF

14. The proposed project is aligned closely with the objectives of the World Bank's new Country Partnership Framework (CPF) 2019–2023 in Cambodia. The Systematic Country Diagnostic, which serves as an underpinning analytical work for CPF, identified infrastructure gaps as a significant barrier to competitiveness and private sector development. The proposed project will support the CPF objectives: expand and improve sustainable infrastructure services (CPF Focus Area 1, Objective 3), foster human development (CPF Focus Area 2), and improve agricultural productivity (CPF Focus Area 3, Objective 8). The proposed project will also support to strengthen institutions and citizens engagement, a cross-cutting theme of the new CPF, by complementing and expanding the ongoing efforts in the transport sector.
15. The proposed project will contribute to achievement of the World Bank Group's twin goals to reduce extreme poverty and promote shared prosperity. It will extend the benefits of climate resilient road accessibility and lower transportation costs to a broader segment of the population in rural areas, where most of the poor and near-poor

<sup>1</sup> World Bank. 2018. *Human Capital Index*.

<sup>2</sup> World Health Organization. 2018. *Global Status Report on Road Safety*.



are concentrated. The project is also aligned well with the Government's RSP-IV through its emphasis on road connectivity and market access, rural development, strengthening climate resilience, and supporting human development, including access to schools and reducing road crash-related fatalities and disabilities.

### **C. Proposed Development Objective(s)**

16. The project development objective is to improve climate resilient road access to economic and human capital development facilities in targeted provinces.

#### **Key Results (From PCN)**

17. The achievement of PDO may be measured through the following indicators:
- (a) Length of roads rehabilitated with improved climate resilient measures;
  - (b) Number of markets with improved road access (access to economic facilities)
  - (c) Number of people with improved access to high schools (access to HCD facilities)
  - (d) Number of people with improved access to referral and emergency health facilities (access to HCD facilities)

### **D. Concept Description**

#### **Project concept**

18. The design of the proposed project builds on a network-wide connectivity approach in targeted provinces to improve all-season road accessibility in rural areas, between rural areas and urban centers, and beyond. The project provinces include Kampong Cham, Kratie and Tboung Khmum with a total population of over 2.3 million people. The selection of provinces was determined considering several criteria including density of rural population, agricultural potential, vulnerability to floods, condition of roads and connectivity of provincial road networks.
19. To achieve an optimal level connectivity, the proposed scope of road improvement works includes two-level interventions. The first intervention is to improve critical sections of the primary and secondary roads, along the identified network/corridor, which connect the rural and provincial roads with the core road network and main economic centers in the country. These road sections are under the responsibility of MPWT. The second intervention is to improve rural road accessibility in the project area, which is under the responsibility of MRD, by focusing on critical rural roads to maximize the social and economic benefits and optimally use of limited resources. Prioritization of rural roads will be done through the rural accessibility and climate resilience analysis, which is being undertaken jointly by the World Bank team and MRD using a geospatial analysis tool.
20. Road works will support to improve climate resilience and safety of road infrastructure. The scope of works will include paving/sealing of the roads to all-weather standards; improving and reconstruction of road structures to adapt to the changing hydrology in the area. The road designs will include an improved drainage system with the construction of additional and larger culverts, appropriate inlet-outlet of culverts, side ditches, and canals to drain water out from the side ditches. Bio-engineering solutions will be used as much as possible for improved road slope protection, including grasses and tree planting. The technical design will ensure that the identified measures reduce transportation costs and flooding risks and achieve the target of creating durable year-round access to the main road network, markets, and services for the rural population. Roads will be improved along the existing alignment



with limited widening of the carriageway, mostly along the shoulders and where land is available, to improve road safety and reduce congestion. Road safety will be improved by widening and sealing shoulders, through better marking and signage, building foot path for the sections passing through community areas as well as specific traffic calming measures at critical locations. The post-construction maintenance phase will define specific performance requirements for improved preservation of road assets, enhanced resilience to climate events and maintaining road safety for the traffic.

21. The World Bank will continue to support the road sector in Cambodia to advance on implementation of output and performance-based road contracts (OPBRC) to improve efficiency and sustainability in road investment and maintenance. Currently, MPWT has rolled out performance-based contracts to about 400 km of national road sections under the ongoing IDA financed Road Asset Management Project II and Additional Financing. MRD is also piloting performance-based road contract with support of the IDA financed South East Asia Disaster Risk Management Project. The proposed project will aim to advance on implementation of the output and performance-based road contracts and extend it to rural roads network.
22. The proposed project will build on the existing strong partnership between the World Bank and the RGC in the road sector. The proposed project will explore synergies with the World Bank's ongoing investments as well as other projects in the road sector financed by development partners to ensure closer coordination and leverage a wider impact through complementarities.

### **Project Scope**

23. Component 1: National and Provincial Roads Improvement. The Component will be implemented by MPWT and will support to improve critical sections of national and provincial roads in the project area with climate resilience measures. Project road sections include (a) Skun to Thnol Tor Teng section of NR7, (b) NR73 which connects NR7 and with Kratie Province, and PR377 and PR377A from Kratie Capital to Sambo district. The component will include consultancy services for supervision and design activities.
24. Component 2: Rural Roads Improvement. The Component will be implemented by MRD. The component will support climate resilient improvement of critical rural roads to enhance access to markets, schools and hospitals in targeted provinces. The focus will be on roads that have a direct or indirect (through other roads) connection to the national and provincial road sections to be improved under the Component 1. The component will also include consultancy services for supervision and design activities.
25. Component 3: Institutional Development and Project Management. The subcomponent on institutional development will support (a) MRD: preparation of the rural road accessibility strategy and investment plan; technical assistance on road safety and rural road maintenance; (b) MPWT: upgrade of the road crash data base; preparation of guidelines and incentives scheme for increased private sector participation in the development and management of roadside rest areas. The subcomponent on project management will finance the project operation costs, consultancies services, monitoring and evaluation and audits.
26. Component 4: Contingent Emergency Response. The Contingent Emergency Response Component (CERC) will ensure that in the event of a natural disaster when the CERC is triggered, funds can be quickly allocated to this component according to the requirements set out in the World Bank policies. A CERC annex will be included to the Project Operations Manual (POM), which will specify implementation arrangements for the component including its activation process, roles and responsibilities of implementing agencies, positive list that may be financed, environmental and social aspects, and fiduciary arrangements.



## **Preparatory Activities**

27. Rural accessibility and climate resilience analysis. The World Bank team and MRD are jointly undertaking rural accessibility and resilience analysis to prioritize rural roads for investment. This innovative approach applies a geospatial analysis tool, developed by the World Bank team, for evidence-based decision making by assessing a baseline rural accessibility condition in the project provinces in relation to potential economic, social, and climate resilience impacts of the investment. Following completion of the analysis, a long list of priority rural roads will be identified, which will further go through environmental and social screening.
28. Gender gap analysis. Preparation of the gender gap analysis has started to identify the most relevant gaps that could be addressed by the project design. Specific issues to be examined include opportunities for employment and income generation, mitigation of gender-based violence risks during road works and potential risks related to the labor influx, opportunities for improved access to services, road safety impacts, and other possible topics. The review will also examine the existing sector assessments and strategies to identify relevant gaps and consider recommendations to empower increased female participation in sector institutions. The Gender Mainstreaming Action Groups of MPWT and MRD, their provincial departments, local councils, key relevant stakeholders, and community men and women will be consulted. The results of the analysis will inform the project design to ensure that community men and women can equally and equitably access and benefit from the project.
29. Social inclusion and citizens engagement. An effective stakeholder engagement and monitoring and system will be developed to support regular consultations with all stakeholders and project-affected people during project implementation. To reach as many stakeholders as possible in an inclusive way, the stakeholder engagement and public participation activities will use both traditional and innovative participatory tools. Specific actions and tools will be included in the project's Stakeholder Engagement Plan, and hence will be co-designed and agreed with the key stakeholders at the preparation phase.
30. Climate change and disaster risk screening and greenhouse gas emission analysis. Climate and disaster risk screening was carried out for the proposed project using the World Bank Climate and Disaster Risk Screening Tool. The main risks identified are the risks of extreme precipitation and flooding. Recommendations of the screening as well as ongoing in-depth rural accessibility and climate resilience analysis will inform the project design on climate resilience and adaptation measures. Furthermore, as part of the economic analysis, an analysis of greenhouse gas (GHG) emissions will be undertaken based on the fuel consumption rate at different speeds under 'with project' and 'without project' scenarios to estimate gross GHG emission, total net GHG emission and annual average net GHG emission, and social costs and benefits of GHG emission reduction.

## **Implementation Arrangements**

31. The implementation arrangements for the proposed project will follow the existing government structure. MPWT and MRD are two project implementing agencies responsible for their respective project components and will implement project activities using their existing institutional setup and departments. Both ministries have the capacity and experience in implementing IDA-financed projects. The project will also allocate funds to support project management, including for hiring local and international consultants to support project implementation. The Project Operations Manual (POM) will be prepared jointly by MPWT and MRD, which will detail requirements on project implementation and management.



| Legal Operational Policies                  | Triggered? |
|---------------------------------------------|------------|
| Projects on International Waterways OP 7.50 | No         |
| Projects in Disputed Areas OP 7.60          | No         |

#### Summary of Screening of Environmental and Social Risks and Impacts

Potential adverse impacts to the environment will be derived primarily from labor influx, dust, noise, vehicle emissions, and other forms of pollution from construction, drainage blockage/flooding, traffic interruption, removal of vegetation, as well as increased traffic flow and speed during operations. While improving road conditions would greatly contribute to better access to public services, it could also increase access to natural resources, forest in particular, which could exacerbate deforestation from logging and land clearance/grabbing in the areas.

Social risks and impacts anticipated for this project are: (a) risk of enhancing impoverishment of vulnerable groups to be economic displaced (mainly roadside vendors), in case resettlement plans are not adequately implemented; (b) if not appropriately managed labor, safety and working conditions impacts related with the construction works; (c) temporary labor influx of workers and risks related to gender based violence in low density areas, considering that in Cambodia often roads are built or improved by international contractors, which might increase the risk of gender based violence; (d) risk of child labor, since national Labor Law defines 12 years old as the minimum working age for children; (e) road safety and community health issues related with the increase of the average speed and number of vehicles using the improved roads

**Note** To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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#### **APPROVAL**

|                      |                          |
|----------------------|--------------------------|
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|----------------------|--------------------------|

#### **Approved By**

|                                                |  |  |
|------------------------------------------------|--|--|
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|------------------------------------------------|--|--|



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|---------------------------|--|--|
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