

TOURISM DEMAND ANALYSIS AND FORECASTS

I. INTRODUCTION

A. Project Overview

1. The proposed project will help transform secondary Greater Mekong Subregion central and southern corridor towns in Cambodia and the Lao People's Democratic Republic (Lao PDR) into economically inclusive, competitive international tourism destinations by improving road and water transport infrastructure, urban environmental services, and capacity to sustainably manage tourism growth. It will boost trade in services and deepen regional cooperation and integration among the GMS and Association of Southeast Asian Nations (ASEAN).

2. The project impact is sustainable, inclusive, and more balanced tourism development achieved, as envisaged in the ASEAN Tourism Strategic Plan 2016–2025. The outcome is increased tourism competitiveness of secondary towns in Cambodia and the Lao PDR. Outputs include: (i) urban-rural access infrastructure and urban environmental services improved, (ii) capacity to implement ASEAN tourism standards strengthened, and (iii) institutional arrangements for tourism destination management and infrastructure operations and maintenance (O&M) strengthened. Detailed descriptions of each subproject and component are in the Project Administration Manual.

3. Target provinces include Kep and Preah Sihanouk, Cambodia; and Champasak, Luang Prabang and Vientiane Province, Lao PDR.

B. Approach and Assumptions

4. The methodology adopted for the analysis and forecasts follows ADB guidelines for economic analysis of tourism projects and the approach of similar ADB-financed tourism projects.¹ The main purpose is to estimate the incremental tourist arrivals and expenditure project areas under different scenarios.

5. The demand analysis includes tourism profiles of the target provinces, baseline conditions (2016), and forecasts for key indicators in with- and without project scenarios covering 30-years (2017-2046). The 30-year duration is divided into four periods:

- (i) PI = 2017-2022 (the two years prior to and first four years of project implementation);
- (ii) PII = 2023-2030 (final year of project implementation and first 6-7-year period post project completion);²
- (iii) PIII = 2031-2040; and
- (iv) PIV = 2041-2046.

6. Provincial indicators include international and domestic tourist arrivals, tourism receipts and average tourist expenditure. Assumptions used for projecting provincial indicators are outlined below. Based on these assumptions, province-specific growth rates

¹ ADB. 2007. *ERD Technical Note Series No. 20: Tourism for Pro-Poor and Sustainable Growth: Economic Analysis of Tourism Projects*. Manila; ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Greater Mekong Subregion Tourism Infrastructure for Inclusive Growth Project*. Manila; and ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Lao People's Democratic Republic for the Greater Mekong Subregion Tourism Infrastructure for Inclusive Growth Project*. Manila.

² Project duration in Cambodia will be 5 years (2019-2023) and in Lao PDR 6 years (2019-2024).

for international and domestic arrivals, average daily expenditure, and average length of stay for with- and without-project scenarios are presented per province in the respective sections.

7. General assumptions for projecting provincial tourism indicators:

Without-project scenario:

- Assumed annual international arrivals growth is based on United Nations World Tourism Organization (UNWTO) forecasts for Southeast Asia³ and historic growth in the respective provinces, as follows:
 - PI 2017-2022: 2010-2030 UNWTO forecast for Southeast Asia (5.1%) adjusted considering the provincial cumulative annual growth rate (CAGR) 2012-2016. PI annual growth rates range from 3.7% to 5.8%;
 - PII 2023-2030: 2020-2030 UNWTO forecast (4.3%) adjusted considering PI rate and provincial CAGR 2012-2016. PII annual rates range from 4.3% to 4.4%;
 - PIII 2031-2040: Annual growth rates range from 2.8% to 2.9%;
 - PIV 2041-2046: Annual growth rates range from 1.3% to 1.4%;
- Assumed growth in domestic arrivals is projected using the same methodology used for international arrivals, as above;
- Average length of stay for both international and domestic tourists is assumed to remain at the 2016 baseline level throughout the study period;
- Average daily expenditure is conservatively assumed to remain at the 2016 baseline level throughout the study period;
- Number of hotel and guesthouse rooms will increase sufficiently to meet capacity requirements to accommodate the projected tourist arrivals.

With-project scenario:

- Assumed annual international arrivals growth is as follows:
 - PI 2017-2022: same as without-project growth projection;
 - PII 2023-2030: 0.30% higher than without-project growth projection;
 - PIII 2031-2040: 0.25% higher than without-project growth projection;
 - PIV 2041-2046: same as without-project growth rate projection for Cambodia (1.36%) and 0.10% higher than without-project growth rate projection for Lao PDR;
- Assumed domestic arrival growth is conservatively projected using the same assumptions as international arrivals;
- Average length of stay for both international and domestic tourists is assumed to remain at the 2016 baseline level until the end of 2022 and conservatively increase by 0.1 day in 2023 throughout the study period;
- Average daily expenditure is conservatively assumed to remain at the 2016 baseline level throughout the study period;
- Number of hotel and guesthouse rooms will increase sufficiently to meet capacity requirements to accommodate the projected tourist arrivals.
- Projected tourist expenditure is presented in constant 2016 prices for the whole study period. A differential inflation rate specific to tourist expenditures is not expected to occur, meaning any change in future prices is in line with general inflation.

8. Assumptions and forecasts by subproject are presented in respective sections below.

³ UNWTO. 2016. *UNWTO Tourism Highlights, 2016 Edition*. Madrid

II. CAMBODIA

A. Tourism Sector Context

9. International visitor arrivals in Cambodia rose to 5.01 million in 2016, a 5.0% increase compared with 2015, but growth is slowing. Viet Nam is the largest source market (19.1%), followed by the People's Republic of China (PRC) at 16.6%, and Thailand (7.9%). The Philippines is the fastest-growing market from a substantial base, increasing by 28% in 2016.⁴ International tourists stay for 6.3 days and their daily spending is about \$102 per day.⁵ Siem Reap and Phnom Penh are the most popular destinations, but tourism in the coastal zone is growing at 5.4%, just above the national average. The direct contribution of travel and tourism to GDP in 2016 was 12.2%, the highest in ASEAN.⁶ Cambodia's Tourism Development Strategic Plan targets 7 million international arrivals, \$5 billion international visitor expenditure and 800,000 new jobs by 2020 and prioritizes investment in the following destinations: Angkor Wat and other ancient Khmer sites, Phnom Penh, the southern coastal corridor (Koh Kong, Preah Sihanouk, Kampot, and Kep), Mekong River and Tonle Sap Lake, and protected areas in the Northeast and Cardamom Mountains.⁷

B. Kep Province

a. Tourism in Kep

10. Kep Province is on the south-west coast of Cambodia, around 164 km from the capital Phnom Penh. With a population of just over 40,000 (2009) and a land area of 336 km², it is the country's smallest province. Kep was established in 2008, when it was separated from Kampot Province. Kep has 16 km of sea coast with the Gulf of Thailand and tiny archipelago of 13 islands and islets. The province is conveniently accessible by land and water.

11. Kep Province is part of the Coastal Zone, comprising four provinces along Cambodia's 435-kilometer coast line. The others are Koh Kong, bordering Thailand in the west; Preah Sihanouk, a tourism and commerce hub; and Kampot, bordering Viet Nam to the East. Kep's main tourist attractions are beaches and colonial-era villas, the crab market and seafood restaurants, Koh Tonsay (Rabbit Island) and Kep National Park. Popular tourist activities are swimming, picnicking, boat excursions around the Kep archipelago, and nature walks in Kep National Park.

12. Kep welcomed nearly 1.1 million tourists in 2016, of which nearly 5% were international (Table 1). This represents a 1.6% increase compared to 2015 (5.3% for international and 1.5% for domestic tourists). Cumulative average growth in arrivals during the period 2012-2016 was 9.7%. Total tourism expenditure in 2016 is estimated to have reached around \$90 million, up 2% from 2015. Length of stay of and average daily expenditure were 3 days and \$75 for international tourists and 1.5 days and \$50 for domestic tourists.

13. While growth in international arrivals between 2012 and 2016 was impressive, it is stagnating, partially because of poor and deteriorating environmental conditions, including inadequate wastewater and solid waste management. Wastewater management at the popular Crab Market is currently being improved by the ongoing ADB-financed GMS Tourism Infrastructure for Inclusive Growth Project (2015-2019). This, combined with the proposed project's investment in solid waste management, along with capacity building to improve

⁴ A substantial base is defined as at least 25,000 annual arrivals from the source market considered.

⁵ Ministry of Tourism, Cambodia. 2016. *Tourism Statistics Report Year 2016*. Phnom Penh.

⁶ World Travel & Tourism Council's Data Gateway. <https://www.wttc.org/datagateway/>.

⁷ Ministry of Tourism. 2012. *Cambodia Tourism Development Strategic Plan 2012–2020*. Phnom Penh.

destination management, will reverse the slowdown in international tourist arrivals and reinvigorate domestic tourism growth.

Table 1: Kep Province Baseline Conditions 2012-2016

Indicator	2012	2013	2014	2015	2016	Growth	CAGR
						2016/2015 (%)	2012-2016 (%)
Tourist arrivals –total	757,497	683,536	758,206	1,079,493	1,097,168	1.6	9.7
International tourists	38,643	47,040	45,061	51,008	53,733	5.3	8.6
Domestic tourists	718,854	636,496	713,145	1,028,485	1,043,435	1.5	9.8
Tourism receipts – total (\$mIn)	62.6	58.3	63.6	88.6	90.3	2.0	9.6
International tourists (\$mIn)	8.7	10.6	10.1	11.5	12.1	5.3	8.6
Domestic tourists (\$mIn)	53.9	47.7	53.5	77.1	78.3	1.5	9.8
Length of Stay							
International tourists	3.0	3.0	3.0	3.0	3.0	0.0	0.0
Domestic tourists	1.5	1.5	1.5	1.5	1.5	0.0	0.0
Average daily expenditure							
International tourists (\$)	75.0	75.0	75.0	75.0	75.0	0.0	0.0
Domestic tourists (\$)	50.0	50.0	50.0	50.0	50.0	0.0	0.0
Average receipts per tourist							
International tourists (\$)	225.0	225.0	225.0	225.0	225.0	0.0	0.0
Domestic tourists (\$)	75.0	75.0	75.0	75.0	75.0	0.0	0.0

CAGR = compound annual growth rate, mIn = million.

Source: Ministry of Tourism; Kep Department of Tourism

b. Tourism Forecasts for Kep

14. As shown in Table 3, without-project forecasts suggest that Kep Province will receive 1,796,064 tourists (87,386 international), generating just under \$148 million in receipts in 2026, and 3,063,296 tourists (148,880 international), generating \$252 million in 2046. The with-project growth scenario places total arrivals at 1,816,806 (88,395 international) in 2026, generating just under \$159 million in receipts, and at 3,211,477 million (156,082 international), generating just under \$281 million in 2046.

Table 2: Kep Province Assumptions for Tourism Forecasts

Indicator	Without Project				With Project			
	2018-2022	2023-2030	2031-2040	2041-2046	2018-2022	2023-2030	2031-2040	2041-2046
International arrivals growth rate	5.4%	4.4%	2.9%	1.4%	5.4%	4.7%	3.1%	1.4%
International length of stay (days)	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1
International daily spending (\$)	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Domestic arrivals growth rate	5.5%	4.4%	2.9%	1.4%	5.5%	4.7%	3.1%	1.4%
Domestic length of stay (days)	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6
Domestic daily spending (\$)	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0

Source: Consultants Estimates

Table 3: Kep Province Tourism Forecasts 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026		2036		2046	
Tourist arrivals - total	1,097,168	1,796,064	2,523,307	3,063,296	1,816,806	2,619,804	3,211,477	20,741	1.2%	96,497	3.8%	148,181	4.8%
International tourists	53,733	87,386	122,703	148,880	88,395	127,396	156,082	1,009	1.2%	4,693	3.8%	7,202	4.8%
Domestic tourists	1,043,435	1,708,678	2,400,604	2,914,416	1,728,411	2,492,408	3,055,394	19,732	1.2%	91,805	3.8%	140,978	4.8%
Tourism receipts - total (\$mln)	90.3	147.8	207.7	252.1	158.8	229.0	280.7	11.0	7.4%	21.4	10.3%	28.6	11.4%
International tourists (\$mln)	12.1	19.7	27.6	33.5	20.6	29.6	36.3	0.9	4.5%	2.0	7.3%	2.8	8.3%
Domestic tourists (\$mln)	78.3	128.2	180.0	218.6	138.3	199.4	244.4	10.1	7.9%	19.3	10.7%	25.9	11.8%
Average receipts per tourist													
International tourists (\$)	225.0	225.0	225.0	225.0	232.5	232.5	232.5	7.5	3.3%	7.5	3.3%	7.5	3.3%
Domestic tourists (\$)	75.0	75.0	75.0	75.0	80.0	80.0	80.0	5.0	6.7%	5.0	6.7%	5.0	6.7%

mln = million

Source: Consultant's estimates.

C. Preah Sihanouk Province

a. Tourism in Preah Sihanouk

15. Preah Sihanouk Province is located on the south-west coast of Cambodia, around 230 km from the capital Phnom Penh, and has a population of around 200,000 (2008). The total land area is 2,537 km², out of which two third are hills and plateaus. The province has 141 km of coastline and 34 islands. Ream National Park is the country's only marine national park with numerous unique ecological habitats and potential for ecotourism development. The province is conveniently accessible by land, rail, air and sea. The capital, Preah Sihanouk, is a deep-water port city and steadily growing urban center.

16. Preah Sihanouk Province is part of the Coastal Zone and a tourism hotspot. Ochheuteal Beach, Serendipity Beach, Otres Beach are the most popular. Islands are also valuable tourism assets. Koh Rong, situated 26 km west of Preah Sihanouk's coast, is the province's largest island, encompassing 78 km². There are existing ferry services between Preah Sihanouk and Koh Rong, but the basic port facilities are reaching capacity. There are many different types of accommodation on the island, including guest houses, bungalows, luxury resorts, and one international 5-star resort. Environmental conditions are deteriorating due to a lack of sanitation and inadequate solid waste management.

Table 4: Preah Sihanouk Province Baseline Conditions 2012-2016

Indicator	2012	2013	2014	2015	2016	Growth 2016/2015 (%)	CAGR 2012-2016 (%)
Tourist arrivals – total	870,464	1,033,929	1,327,748	1,518,874	2,079,570	36.9	24.3
International tourists	212,643	302,325	358,639	362,061	404,939	11.8	17.5
Domestic tourists	657,821	731,604	969,109	1,156,813	1,674,631	44.8	26.3
Tourism receipts - total (\$mln)	41.2	50.2	63.8	71.7	96.0	33.8	23.5
International tourists (\$mln)	14.0	20.0	23.7	23.9	26.7	11.8	17.5
Domestic tourists (\$mln)	27.2	30.3	40.1	47.9	69.3	44.8	26.3
Length of Stay ^a							
International tourists	1.9	1.9	1.9	1.9	1.9	0.0	0.0
Domestic tourists	1.7	1.7	1.7	1.7	1.7	0.0	0.0
Average daily expenditure ^a							
International tourists (\$)	40.0	40.0	40.0	40.0	40.0	0.0	0.0
Domestic tourists (\$)	27.6	27.6	27.6	27.6	27.6	0.0	0.0
Average receipts per tourist							
International tourists (\$)	66.0	66.0	66.0	66.0	66.0	0.0	0.0
Domestic tourists (\$)	41.4	41.4	41.4	41.4	41.4	0.0	0.0

CAGR = compound annual growth rate, mln = million.

^a Daily expenditure and length of stay for 2012-2015 are assumed at the 2016 level due to the unavailability of data for 2012-2015.

Source: Ministry of Tourism; Preah Sihanouk Department of Tourism

17. Preah Sihanouk Province welcomed 2.1 million visitors in 2016, of which nearly 20% were international (Table 4). This represents a 37% increase compared to 2015 (12% for international and 45% for domestic tourists). Cumulative average growth during the period 2012-2016 was 24%. Total tourism expenditure in 2016 is estimated at around \$96 million, up 24% from 2015. Length of stay of and average daily expenditure were 1.9 days and \$40 for international tourists and 1.7 days and \$27.6 for domestic tourists. Lacking historic data (2012-2015) for average length of stay and average daily expenditure, these are assumed to be the same as 2016.

18. Based on strong international and domestic demand, it is likely that tourism in Preah Sihanouk Province will continue to grow steadily into the foreseeable future. However, without strategic investment there is a risk it will exceed its carrying capacity, and consequently growth will stagnate or decline. The project's proposed seaside access and environmental improvements along Ochheuteal and Otres beaches, and passenger pier developments in Preah Sihanouk and Koh Toch, along with better destination management, will help relieve congestion, improve beachfront drainage, and improve passenger handling capacity and safety.

b. Tourism Forecasts for Preah Sihanouk

19. The assumptions are shown in Table 5. As shown in Table 6, without-project forecasts suggest that Preah Sihanouk Province will receive 3,714,007 tourists (693,735 international) and generate just under \$171 million in receipts in 2026, and 6,427,391 tourists (1,192,187 international), generating just over \$295 million in 2046. The with-project growth scenario places total arrivals at 3,756,867 (701,744 international) in 2026, generating just under \$184 million, and at 6,738,073 million (1,249,834 international) in 2046, when arrivals could generate just under \$330 million.

c. Forecasts for Output 1 infrastructure subprojects in Preah Sihanouk

20. Baseline conditions and projections for each infrastructure subproject are presented in Table 7. The assumptions and forecasts are presented below.

- S1: Preah Sihanouk Seaside Access and Environmental Improvements
 - Baseline conditions:**
 - International and domestic arrivals comprise 80% of provincial arrivals (as per Department of Tourism (DOT) estimates);
 - Receipts calculated using estimated tourist arrivals * provincial average daily expenditure * length of stay.
 - Without-project scenario:**
 - International and domestic arrival growth follows provincial “without-project” growth assumptions;
 - Receipts calculated using forecasted tourist arrivals * provincial average daily expenditure * length of stay.
 - With-project scenario:**
 - International and domestic arrival growth follows the provincial “with-project” growth assumptions;
 - Receipts calculated using forecasted tourist arrivals * forecasted provincial with-project average daily expenditure * length of stay.
- S2: Preah Sihanouk City-Koh Rong Passenger Piers and Koh Toch Beach Improvements
 - Baseline conditions:**
 - Preah Sihanouk - Koh Rong ferry service
 - Ferry-round trips and passenger-round trips as reported by DOT;
 - Ferry fare receipts calculated at \$20 per passenger-round trip (as reported by DOT and operators).
 - Preah Sihanouk Ferry pier operation
 - Pier to be newly constructed – baseline is nil.
 - Koh Rong ferry pier operation
 - Pier to be newly constructed – baseline is nil.
 - Koh Rong tourism

- International and domestic arrivals on Koh Rong as reported by DOT;
- Tourism receipts on Koh Rong calculated using reported Koh Rong arrivals * length of stay (3 days for international and 2 days for domestic tourists) * 70% of provincial average daily expenditure.

Without-project scenario:

- Preah Sihanouk - Koh Rong ferry service
 - Growth rate of ferry-round trips and passenger-round trips is the same as provincial tourist arrival growth rate;
 - Ferry fare receipts calculated at \$20 per passenger-round trip.
- Preah Sihanouk Ferry pier operation
 - Not applicable.
- Koh Rong ferry pier operation
 - Not applicable.
- Koh Rong tourism
 - International and domestic arrivals growth rate on Koh Rong assumed to be the same as provincial growth rate;
 - Tourism receipts on Koh Rong calculated using forecasted Koh Rong arrivals * length of stay as per baseline * 70% of forecasted provincial average daily expenditure.

With-project scenario:

- Preah Sihanouk - Koh Rong ferry service
 - Growth in ferry-round trips and passenger-round trips assumed the same as forecasted provincial arrival growth rate, except for 2023-2030, during which 0.1% incremental growth is expected;
 - Ferry fare receipts calculated at \$20 per passenger-round trip.
- Preah Sihanouk ferry pier operation
 - Departure tax is assumed \$0.50 per passenger from 2023 onwards;
 - Berthing fees is assumed \$1 per ferry arrival from 2023 onwards;
 - Receipts from parking fees calculated at \$0.50 per vehicle per day (one vehicle is assumed to carry four people), with 1% of international passengers and 7% of domestic passengers using the parking service for the respective projected average length of stay on Koh Rong, from 2023 onwards;
 - Rental of commercial space (approx. 72m²) is assumed \$17,280 per year from 2023 onwards.
- Koh Rong ferry pier operation
 - Departure tax is assumed \$0.50 per passenger from 2023 onwards;
 - Berthing fee is assumed \$1 per ferry arrival from 2023 onwards;
 - Rental of commercial space (approx. 64m²) is assumed at \$15,360 per year from 2023 onwards.
- Koh Rong tourism
 - Koh Rong's International and domestic arrival growth assumed to be the same as the provincial arrival growth

rate, except for 2023-2030, when 0.1% incremental annual growth is expected;

- Average length of stay for both international and domestic tourists is assumed to increase by 0.1 day beginning in 2023;
- Tourism receipts calculated using forecasted Koh Rong arrivals * length of stay * 70% of forecasted provincial average daily expenditure.

Table 5: Preah Sihanouk Province Assumptions for Tourism Forecasts

Indicator	Without Project				With Project			
	2018-2022	2023-2030	2031-2040	2041-2046	2018-2022	2023-2030	2031-2040	2041-2046
International arrivals growth rate	6.3%	4.4%	2.9%	1.4%	6.3%	4.7%	3.1%	1.4%
International length of stay (days)	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8
International daily spending (\$)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Domestic arrivals growth rate	7.2%	4.4%	2.9%	1.4%	7.2%	4.7%	3.2%	1.4%
Domestic length of stay (days)	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6
Domestic daily spending (\$)	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6

Source: Consultant's estimates.

Table 6: Preah Sihanouk Province Tourism Forecasts 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026	2036	2046	2026	2036	2046
Tourist arrivals - total	2,079,570	3,714,007	5,255,689	6,427,391	3,756,867	5,456,532	6,738,073	42,859	1.2%	200,843	3.8%	310,682	4.8%
International tourists	404,939	693,735	978,299	1,192,187	701,744	1,015,697	1,249,834	8,008	1.2%	37,398	3.8%	57,647	4.8%
Domestic tourists	1,674,631	3,020,272	4,277,390	5,235,204	3,055,123	4,440,835	5,488,239	34,851	1.2%	163,445	3.8%	253,035	4.8%
Tourism receipts - total (\$mIn)	96.0	170.7	241.5	295.2	183.9	267.0	329.7	13.2	7.7%	25.5	10.6%	34.4	11.7%
International tourists (\$mIn)	26.7	45.8	64.6	78.7	49.1	71.1	87.5	3.3	7.3%	6.5	10.1%	8.8	11.2%
Domestic tourists (\$mIn)	69.3	124.9	176.9	216.6	134.8	195.9	242.2	9.9	7.9%	19.0	10.7%	25.6	11.8%
Average receipts per tourist													
International tourists (\$)	66.0	66.0	66.0	66.0	70.0	70.0	70.0	4.0	6.1%	4.0	6.1%	4.0	6.1%
Domestic tourists (\$)	41.4	41.4	41.4	41.4	44.1	44.1	44.1	2.8	6.7%	2.8	6.7%	2.8	6.7%

mIn = million

Source: Ministry of Tourism; Preah Sihanouk Department of Tourism and consultant's estimates.

Table 7: Preah Sihanouk Province Tourism Forecasts by Subproject 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026	2036	2046			
S1: Preah Sihanouk Seaside Access and Environmental Improvements													
<i>Ocheteaul Beach and Otres Beach</i>													
Tourist arrivals	1,663,656	2,971,206	4,204,551	5,141,913	3,005,493	4,365,225	5,390,458	34,288	1.2%	160,674	3.8%	248,546	4.8%
International	323,951	554,988	782,639	953,749	561,395	812,558	999,867	6,407	1.2%	29,919	3.8%	46,118	4.8%
Domestic	1,339,705	2,416,218	3,421,912	4,188,163	2,444,099	3,552,668	4,390,591	27,881	1.2%	130,756	3.8%	202,428	4.8%
Tourism receipts (\$mln)	76.8	136.6	193.2	236.2	147.1	213.6	263.7	10.6	7.7%	20.4	10.6%	27.5	11.7%
S2: Preah Sihanouk City -Koh Rong Passenger Piers and Koh Toch Beach Improvements													
<i>Preah Sihanouk - Koh Rong ferry service</i>													
Ferry-round trips	7,397	12,862	18,161	22,160	13,060	18,999	23,409	198	1.5%	839	4.6%	1,249	5.6%
Passenger-round trips	298,601	519,210	733,107	894,533	527,212	766,963	944,970	8,002	1.5%	33,856	4.6%	50,438	5.6%
International	213,923	366,490	516,820	629,814	372,139	540,691	665,330	5,649	1.5%	23,871	4.6%	35,516	5.6%
Domestic	84,678	152,721	216,287	264,719	155,074	226,272	279,640	2,353	1.5%	9,985	4.6%	14,921	5.6%
Fare receipts (\$mln)	6.0	10.4	14.7	17.9	10.5	15.3	18.9	0.2	1.5%	0.7	4.6%	1.0	5.6%
<i>Preah Sihanouk ferry pier operation</i>													
Total receipts (\$)					159,911	224,782	272,954	159,911		224,782		272,954	
Passenger departure tax (\$)					131,803	191,741	236,243	131,803		191,741		236,243	
Berthing fees (\$)					6,530	9,500	11,704	6,530		9,500		11,704	
Parking fees (\$)					4,292	6,253	7,717	4,292		6,253		7,717	
Rental of stalls and kiosks (\$)					17,280	17,280	17,280	17,280		17,280		17,280	
<i>Koh Rong ferry pier operation</i>													
Total receipts (\$)					153,693	216,600	263,307	153,693		216,600		263,307	
Passenger departure tax (\$)					131,803	191,741	236,243	131,803		191,741		236,243	
Berthing fees (\$)					6,530	9,500	11,704	6,530		9,500		11,704	
Rental of stalls and kiosks (\$)					15,360	15,360	15,360	15,360		15,360		15,360	
<i>Koh Rong Island</i>													
Visitor arrivals	298,601	519,210	733,107	894,533	527,212	766,963	944,970	8,002	1.5%	33,856	4.6%	50,438	5.6%
International	213,923	366,490	516,820	629,814	372,139	540,691	665,330	5,649	1.5%	23,871	4.6%	35,516	5.6%
Domestic	84,678	152,721	216,287	264,719	155,074	226,272	279,640	2,353	1.5%	9,985	4.6%	14,921	5.6%
Tourism receipts (\$mln)	21.2	36.7	51.8	63.1	38.6	56.1	69.1	1.9	5.2%	4.3	8.4%	6.0	9.4%

mln = million

Source: Ministry of Tourism; Preah Sihanouk Department of Tourism and consultant's estimates.

III. LAO PEOPLE'S DEMOCRATIC REPUBLIC

A. Tourism Sector Context

21. International visitor arrivals to the Lao PDR totaled 4.24 million in 2016, a 9.5% drop compared to 2015. Thailand is the largest source market and accounts for 47.4% of international arrivals, followed by Viet Nam (23.6%) and the PRC (12.9%). The fastest-growing market, from a substantial base, is Japan. Long-haul overnight international visitors stay an average of 7.6 days and spend \$77 per day, while intraregional visitors entering with a passport stay for an average of 3 days and spend \$43 per day. Half combine their visit to the Lao PDR with a visit to Thailand.⁸ Arrival growth in the popular destination Luang Prabang is stable, but in emerging destinations such as of Champasak Province and Vientiane Province (Vang Vieng) growth is stagnating. The direct contribution of travel and tourism to GDP in 2016 was 4.3%.⁹ Lao PDR's National Tourism Strategy 2012–2020 targets 4.5 million international visitor arrivals, \$800 million international visitor expenditure and 100,000 new jobs by 2020.¹⁰

B. Champasak Province

a. Tourism in Champasak

22. Champasak Province is in southwestern Lao PDR bordering Cambodia and Thailand covering an area of 15,415 square kilometers. The population is nearly 700,000 (2015) and the capital is Pakse. The Mekong River forms part of the border with neighboring Thailand and Siphandone (Four Thousand Islands) in the south, near the Cambodian border.

23. Champasak's main tourist attractions include Pakse's old quarter with historic buildings, Buddhist temples and Mekong River promenade, the Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape World Heritage Site, Siphandone and Khone Phapheng waterfall—Southeast Asia's largest by volume; Xe Pian, Dong Houa Sao and Phou Xieng Thong National Protected Areas; and the Bolaven Plateau. Popular tourist activities are visits to waterfalls, shopping for locally produced handicrafts, river excursions, trekking, and community-based tourism.

24. Champasak welcomed over 533,000 tourists in 2016 (Table 8). Compound annual growth during 2012-2016 was 10%. However, this impressive growth rate is attributable to the domestic market since international arrival numbers are declining. Receipts from tourism were \$64 million in 2015, a 2.5% decrease compared with 2015. Length of stay of and average daily expenditure were 7.0 days and \$60 for international tourists and 1.0 day and \$20.0 for domestic tourists.

25. While the total number of tourist arrivals in Champasak could continue to grow in the near term, strategic investment in the destination is needed to reverse the decline in international arrivals. The project's proposed access and environmental improvements in Siphandone, along with better destination management will increase the destination's appeal to the international market, boost arrival numbers, and increase length of stay.

⁸ Ministry of Information, Culture, and Tourism, Lao PDR. 2016. *2016 Statistical Report on Tourism in Laos*. Vientiane.

⁹ World Travel & Tourism Council's Data Gateway. <https://www.wttc.org/datagateway/>.

¹⁰ Ministry of Information, Culture and Tourism. 2012. *Lao PDR Tourism Strategy 2012–2020*. Vientiane.

Table 8: Champasak Province Baseline Conditions 2012-2016

Indicator	2012	2013	2014	2015	2016	Growth	CAGR
						2016/2015 (%)	2012-2016 (%)
Tourist arrivals - total	362,724	390,506	452,803	525,647	533,264	1.4	10.1
International tourists	128,391	135,535	134,043	151,289	133,572	-11.7	1.0
Domestic tourists	234,333	254,971	318,760	374,358	399,692	6.8	14.3
Tourism receipts - total (\$mIn)	35.5	44.7	49.9	65.7	64.1	-2.5	15.9
International tourists (\$mIn)	30.8	39.6	43.6	58.2	56.1	-3.7	16.2
Domestic tourists (\$mIn)	4.7	5.1	6.4	7.5	8.0	6.8	14.3
Length of Stay							
International tourists	6.0	6.5	6.5	7.0	7.0	0.0	3.9
Domestic tourists	1.0	1.0	1.0	1.0	1.0	0.0	0.0
Average daily expenditure							
International tourists (\$)	40.0	45.0	50.0	60.0	60.0	0.0	10.7
Domestic tourists (\$)	20.0	20.0	20.0	20.0	20.0	0.0	0.0
Average receipts per tourist							
International tourists (\$)	240.0	292.5	325.0	385.0	420.0	9.1	15.0
Domestic tourists (\$)	20.0	20.0	20.0	20.0	20.0	0.0	0.0

CAGR = compound annual growth rate, mIn = million.

Source: Ministry of Information, Culture and Tourism; Champasak Department of Information, Culture and Tourism

b. Tourism Forecasts for Champasak

26. Assumptions are shown in Table 9. As shown in Table 10, without-project forecasts suggest that Champasak Province will receive 879,791 tourists (207,699 international) and generate just over \$100 million in receipts in 2026; and 1,502,661 tourists (351,251 international) expected to generate nearly \$171 million in 2046. The with-project growth scenario places total arrivals at 889,951 (210,099 international) in 2026, generating just under \$105 million in receipts; and at 1,584,691 million (370,435 international), generating nearly \$185 million in 2046.

c. Forecasts for Output 1 infrastructure subprojects in Champasak

27. Baseline conditions and projections for each infrastructure subproject site are presented in Table 11. The assumptions and forecasts are presented below.

- C1: Nakasang Access Road and Port Rehabilitation & C2 Don Det-Don Khone Access Improvements

Baseline conditions:

- Don Det-Don Khone Islands
 - Arrivals at Somphamith Waterfall, the islands' main attraction, assumed as proxy for Don Det-Don Khone;
 - Receipts calculated as Don Det-Don Khone arrivals * 1.5 days assumed length of stay for international tourists and 0.5 day for domestic tourists * reported provincial average daily expenditure.
- Nakasang Ferry Service
 - Ferry-trips as reported by Nakasang Boat Association;
 - Passenger-trips calculated using tourist arrivals from Ban Don Det and Ban Khone, the main ferry service disembarkation points;
 - Receipts calculated at an average fare of 17,500 Kip (\$2.16) per one-way passenger-trip.

- Don Det-Don Khone tourist transport service
 - Vehicle-trips and passenger-trips as reported by DICT;
 - Receipts calculated using average fare 50,000 Kip (\$6.20) per passenger-trip.

Without-project scenario:

- Don Det Don Khone Islands
 - International and domestic arrivals assumed same as provincial growth rate;
 - Receipts calculated using same assumptions as baseline.
- Nakasang Ferry Service
 - Growth in ferry-trips and passenger-trips are the same rate as Don Det-Don Khone arrival growth assumptions;
 - Receipts calculated using same assumptions as baseline.
- Don Det-Don Khone tourist transport service
 - Growth in vehicle-trips and passenger-trips same rate as Don Det-Don Khone arrival growth assumptions;
 - Receipts calculated using same assumptions as baseline;

With-project scenario:

- Don Det Don Khone Islands
 - International and domestic arrival growth rate assumed same as provincial growth assumptions, with 0.3% incremental growth during 2023-2030, and 0.2% incremental growth during 2031-2040;
 - Average length of stay for both international and domestic tourists is assumed to increase by 0.1 day in 2023 onwards;
 - Receipts calculated using forecasts for Don Det-Don Khone arrivals * average length of stay * provincial average daily expenditure.
- Nakasang Ferry Service
 - Growth in ferry-trips and passenger-trips are the same rate as Don Det-Don Khone arrival growth assumptions;
 - Receipts calculated using same assumptions as baseline.
- Don Det-Don Khone tourist transport service
 - Growth in vehicle-trips and passenger-trips are the same rate as Don Det-Don Khone arrival growth assumptions;
 - Receipts calculated using same assumptions as baseline.

Table 9: Champasak Province Assumptions for Tourism Forecasts

Indicator	Without Project				With Project			
	2018-2023	2024-2030	2031-2040	2041-2046	2018-2023	2024-2030	2031-2040	2041-2046
International arrivals growth rate	4.6%	4.3%	2.8%	1.3%	4.6%	4.6%	3.1%	1.4%
International length of stay (days)	7.0	7.0	7.0	7.0	7.0	7.1	7.1	7.1
International daily spending (\$)	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Domestic arrivals growth rate	6.0%	4.4%	2.9%	1.4%	6.0%	4.7%	3.1%	1.5%
Domestic length of stay (days)	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Domestic daily spending (\$)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

Source: Ministry of Information, Culture and Tourism; Champasak Department of Information, Culture and Tourism; and consultant's estimates.

Table 10: Champasak Province Tourism Forecasts 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026		2036		2046	
Tourist arrivals - total	533,264	879,791	1,236,890	1,502,661	889,951	1,284,188	1,584,691	10,159	1.2%	47,298	3.8%	82,030	5.5%
International tourists	133,572	207,699	290,572	351,251	210,099	301,689	370,435	2,400	1.2%	11,117	3.8%	19,184	5.5%
Domestic tourists	399,692	672,092	946,317	1,151,410	679,852	982,499	1,214,256	7,760	1.2%	36,181	3.8%	62,846	5.5%
Tourism receipts - total (\$mln)	64.1	100.7	141.0	170.6	104.5	150.1	184.5	3.8	3.8%	9.2	6.5%	14.0	8.2%
International tourists (\$mln)	56.1	87.2	122.0	147.5	89.5	128.5	157.8	2.3	2.6%	6.5	5.3%	10.3	7.0%
Domestic tourists (\$mln)	8.0	13.4	18.9	23.0	15.0	21.6	26.7	1.5	11.3%	2.7	14.2%	3.7	16.0%
Average receipts per tourist													
International tourists (\$)	420.0	420.0	420.0	420.0	426.0	426.0	426.0	6.0	1.4%	6.0	1.4%	6.0	1.4%
Domestic tourists (\$)	20.0	20.0	20.0	20.0	22.0	22.0	22.0	2.0	10.0%	2.0	10.0%	2.0	10.0%

mln = million

Source: Ministry of Information, Culture and Tourism; Champasak Department of Information, Culture and Tourism; and consultant's estimates.

Table 11: Champasak Province Tourism Forecasts by Subproject 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026	2036	2046	2026	2036	2046
<i>C1: Nakasang Access Road and Port Rehabilitation & C2 Don Det-Don Khone Access Improvements</i>													
<i>Nakasang ferry service</i>													
Ferry-trips	5,760	9,144	12,815	15,519	9,356	13,773	17,073	212	2.3%	958	7.5%	1,554	10.0%
Passenger-trips	138,833	220,401	308,883	374,053	225,514	331,966	411,518	5,114	2.3%	23,084	7.5%	37,465	10.0%
International	100,540	159,610	223,687	270,882	163,313	240,403	298,013	3,703	2.3%	16,717	7.5%	27,131	10.0%
Domestic	38,293	60,791	85,196	103,172	62,201	91,563	113,505	1,410	2.3%	6,367	7.5%	10,334	10.0%
Fare receipts (\$)	299,320	475,177	665,942	806,447	486,202	715,709	887,221	11,025	2.3%	49,768	7.5%	80,774	10.0%
<i>Don Det-Don Khone Islands</i>													
Visitor arrivals	203,055	322,355	451,767	547,085	329,834	485,529	601,880	7,479	2.3%	33,762	7.5%	54,796	10.0%
International	150,814	234,510	328,081	396,592	239,952	352,603	436,322	5,442	2.3%	24,523	7.5%	39,730	10.0%
Domestic	52,241	87,845	123,687	150,493	89,882	132,926	165,559	2,037	2.3%	9,239	7.5%	15,066	10.0%
Tourism receipts (\$mln)	14.1	22.0	30.8	37.2	25.7	37.8	46.8	3.7	17.1%	7.1	23.0%	9.6	25.9%
<i>Don Det-Don Khone tourist transport service</i>													
Vehicle-trips	3,874	6,150	8,619	10,438	6,293	9,263	11,483	143	2.3%	644	7.5%	1,045	10.0%
Passenger-trips	9,992	15,863	22,231	26,921	16,231	23,892	29,618	368	2.3%	1,661	7.5%	2,696	10.0%
International	5,990	9,509	13,327	16,139	9,730	14,323	17,755	221	2.3%	996	7.5%	1,616	10.0%
Domestic	4,002	6,353	8,904	10,782	6,501	9,569	11,862	147	2.3%	665	7.5%	1,080	10.0%
Fare receipts (\$)	61,550	97,712	136,939	165,832	99,979	147,173	182,441	2,267	2.3%	10,234	7.5%	16,610	10.0%

mln = million

^a Arrival numbers from Somphamith Waterfall, Don Khone Island, the most visited attraction on Don Det-Don Khone.

Source: Ministry of Information, Culture and Tourism; Champasak Department of Information, Culture and Tourism; and consultant's estimates.

C. Luang Prabang Province

a. Tourism in Luang Prabang

28. Luang Prabang is located in northern Lao PDR and has a population of nearly 432,000 (2015). It covers an area of 16,875 square kilometers. The capital, also Luang Prabang, was the capital of the Lane Xang Kingdom during the 13th to 16th centuries. Luang Prabang Town was listed as a UNESCO World Heritage Site in 1995 for unique architectural, religious and cultural heritage.

29. Luang Prabang's primary tourist attraction is the historic town of Luang Prabang. Important secondary destinations include Pak Ou, with the popular Tham Ting Caves and nearby village Ban Xang Hai; and the Chomphet heritage district, located across the Mekong River from Luang Prabang Town. Popular tourist activities are visiting temples (there are over 30 in Luang Prabang Town), shopping for locally produced handicrafts, waterfalls (Kuang Si Waterfall and Tad Se), river excursions, and community-based tourism.

30. Luang Prabang welcomed over 643,000 visitors in 2016, out of which approximately 470,000 (73%) were international tourists. Average annual arrival growth during 2012-2016 was 11.9%. In 2016 international tourist arrivals grew by 5.4% and domestic arrivals grew by 7.4%. Tourism receipts topped \$200 million in 2016, a 5.6% increase over 2014. Average length of stay of and average daily expenditure were, respectively, 5.0 days and \$75 for international tourists and 3.5 days and \$40 for domestic tourists. These averages have held steady for the past five years.

Table 12: Luang Prabang Province Baseline Conditions 2012-2016

Indicator	2012	2013	2014	2015	2016	Growth	CAGR
						2016/2015 (%)	2012-2016 (%)
Tourist arrivals – total	410,837	467,965	531,327	607,584	643,319	5.9	11.9
International tourists	294,213	342,611	378,999	445,872	469,586	5.3	12.4
Domestic tourists	116,624	125,354	152,328	161,712	173,733	7.4	10.5
Tourism receipts - total (\$mIn)	126.7	146.0	163.5	189.8	200.4	5.6	12.2
International tourists (\$mIn)	110.3	128.5	142.1	167.2	176.1	5.3	12.4
Domestic tourists (\$mIn)	16.3	17.5	21.3	22.6	24.3	7.4	10.5
Length of Stay							
International tourists	5.0	5.0	5.0	5.0	5.0	0.0	0.0
Domestic tourists	3.5	3.5	3.5	3.5	3.5	0.0	0.0
Average daily expenditure							
International tourists (\$)	75.0	75.0	75.0	75.0	75.0	0.0	0.0
Domestic tourists (\$)	40.0	40.0	40.0	40.0	40.0	0.0	0.0
Average receipts per tourist							
International tourists (\$)	375.0	375.0	375.0	375.0	375.0	0.0	0.0
Domestic tourists (\$)	140.0	140.0	140.0	140.0	140.0	0.0	0.0

CAGR = compound annual growth rate, mIn = million.

Source: Ministry of Information, Culture and Tourism; Luang Prabang Department of Information, Culture and Tourism

31. Tourism is likely to continue growing into the foreseeable future, putting even more stress on the already congested historic town. Growth is likely to accelerate once the high-speed railway currently under construction is completed (estimated by 2021), which will link the Lao PDR, PRC, and Thailand as part of the Pan-Asia Railway Network. Without strategic intervention there is a risk the destination will become overcrowded and heritage resources will be degraded, leading to fewer tourists and negative social and environmental impacts. There is a need to enhance destination management and develop new activities and sites outside the main town. In response, the project will build capacity to strengthen institutional

arrangements for tourism destination management and promote investment in new areas, particularly in Chomphet Heritage District and Pak Ou District, which are included in the ongoing ADB-financed GMS Tourism Infrastructure for Inclusive Growth Project (2015-2019).

b. Tourism Forecasts for Luang Prabang

32. The assumptions are in Table 13. As shown in Table 14, without-project forecasts suggest Luang Prabang Province will receive 1,066,658 tourists (780,964 international) and generate just under \$333 million tourist receipts in 2026; and 1,823,113 tourists (1,335,479 international) generating just over \$569 million in 2046. The with-project growth scenario places total arrivals at 1,078,974 (789,982 international) in 2026, generating just under \$351 million in receipts; and at 1,922,633 million (1,408,378 international), generating just over \$625 million in 2046.

Table 13: Luang Prabang Province Assumptions for Tourism Forecasts

Indicator	Without Project				With Project			
	2018-2023	2024-2030	2031-2040	2041-2046	2018-2023	2024-2030	2031-2040	2041-2046
International arrivals growth rate	5.8%	4.4%	3.1%	1.5%	5.8%	4.7%	3.1%	1.5%
International length of stay (days)	5.0	5.0	5.2	5.2	5.1	5.2	5.2	5.2
International daily spending (\$)	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Domestic arrivals growth rate	5.6%	4.4%	3.1%	1.5%	5.6%	4.7%	3.1%	1.5%
Domestic length of stay (days)	3.5	3.5	3.7	3.7	3.6	3.7	3.7	3.7
Domestic daily spending (\$)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0

Source: Ministry of Information, Culture and Tourism; Luang Prabang Department of Information, Culture and Tourism; consultant's estimates.

Table 14: Luang Prabang Province Tourism Forecasts 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026		2036		2046	
Tourist arrivals - total	643,319	1,066,658	1,500,136	1,823,113	1,078,974	1,557,498	1,922,633	12,317	1.2%	57,363	3.8%	99,520	5.5%
International tourists	469,586	780,964	1,098,613	1,335,479	789,982	1,140,621	1,408,378	9,018	1.2%	42,008	3.8%	72,899	5.5%
Domestic tourists	173,733	285,693	401,523	487,633	288,993	416,878	514,254	3,299	1.2%	15,355	3.8%	26,621	5.5%
Tourism receipts - total (\$mIn)	200.4	332.9	468.2	569.1	350.9	506.5	625.4	18.0	5.4%	38.3	8.2%	56.3	9.9%
International tourists (\$mIn)	176.1	292.9	412.0	500.8	308.1	444.8	549.3	15.2	5.2%	32.9	8.0%	48.5	9.7%
Domestic tourists (\$mIn)	24.3	40.0	56.2	68.3	42.8	61.7	76.1	2.8	6.9%	5.5	9.8%	7.8	11.5%
Average receipts per tourist													
International tourists (\$)	375.0	375.0	375.0	375.0	390.0	390.0	390.0	15.0	4.0%	15.0	4.0%	15.0	4.0%
Domestic tourists (\$)	140.0	140.0	140.0	140.0	148.0	148.0	148.0	8.0	5.7%	8.0	5.7%	8.0	5.7%

mIn = million

Source: Ministry of Information, Culture and Tourism; Luang Prabang Department of Information, Culture and Tourism; consultant's estimates.

D. Vientiane Province

a. Tourism in Vientiane Province

33. Vientiane Province is located just north of Vientiane Capital and has a population of nearly 420,000 people (2015). Vientiane Province is large, covering 15,927 square kilometers. It borders Luang Prabang Province to the north, Xiang Khouang Province to the northeast, Xaisomboune and Bolikhamxay Provinces to the east, Vientiane Capital and Thailand to the south, and Sayabouly Province to the west. The principal towns are Vang Vieng and Phong Hong. Several kilometers to the south of Vang Vieng is one of Lao PDR's largest lakes, the Nam Ngum reservoir. Much of this area, particularly the forests of the southern part, is inside Phou Khao Khouay National Protected Area.

34. Vientiane Province's main tourist attraction is Vang Vieng, located on Route 13 roughly halfway between Vientiane Capital and Luang Prabang. The area's most notable feature is karst hills surrounding the town. Popular activities include tubing, kayaking or rafting along the Nam Song River and exploring the surrounding landscape by bicycle; visiting caves; swimming; and visiting waterfalls. The town has abundant accommodations, ranging from inexpensive guesthouses to luxury resorts. Nearby tourist attractions include the Nam Ngum reservoir, offering lake-side accommodation and water-based activities, and Phou Khao Khouay National Protected Area with camping and hiking opportunities.

Table 15: Vientiane Province Baseline Conditions 2012-2016

Indicator	2012	2013	2014	2015	2016	Growth 2016/2015 (%)	CAGR 2012-2016 (%)
Tourist arrivals - total	469,978	510,396	504,049	561,855	579,948	3.2	5.4
International tourists	314,762	190,663	203,171	216,083	216,887	0.4	-8.9
Domestic tourists	155,216	319,733	300,878	345,772	363,061	5.0	23.7
Tourism receipts - total (\$m)	69.0	75.0	96.3	132.2	99.4	-24.9	9.5
International tourists (\$m)	66.1	53.4	81.3	103.7	69.4	-33.1	1.2
Domestic tourists (\$m)	2.9	21.6	15.0	28.5	30.0	5.0	79.1
Length of stay							
International tourists	3.0	4.0	5.0	6.0	4.0	-33.3	7.5
Domestic tourists	1.0	3.0	2.0	3.0	3.0	0.0	31.6
Average daily expenditure							
International tourists (\$)	70.0	70.0	80.0	80.0	80.0	0.0	3.4
Domestic tourists (\$)	18.8	22.5	25.0	27.5	27.5	0.0	10.0
Average receipts per tourist							
International tourists (\$)	210.0	280.0	400.0	480.0	320.0	-33.3	11.1
Domestic tourists (\$)	18.8	67.5	50.0	82.5	82.5	0.0	44.8

CAGR = compound annual growth rate, mIn = million.

Source: Ministry of Information, Culture and Tourism; Vientiane Province Department of Information, Culture and Tourism.

35. Vientiane Province welcomed nearly 580,000 visitors in 2016 (37% international), with Vang Vieng as the main destination (32% of total arrivals). Cumulative annual arrival growth during 2012-2016 was 5.4%. This is mainly because of a steady increase in domestic arrivals, with growth in international arrivals stagnating in 2016. Tourism receipts fell 25% in 2016 compared to 2015 because international visitors' average length of stay dropped from 6.0 days in 2015 to 4.0 days in 2016.

36. Strategic investment is needed to reverse declining international arrivals and length of stay. The project's proposed access and environmental improvements will open new areas for investment, improve urban sanitation and waste management, and pedestrianize Vang Vieng's core to enhance the destination's appeal. Proposed access and environmental

improvements at the Nam Ngum Reservoir will increase its appeal to the international market, and unlock its potential as a day-trip destination for Vientiane residents and tourists.

b. Tourism Forecasts for Vientiane Province

37. The assumptions are in Table 16. As shown in Table 17, without-project forecasts suggest that Vientiane Province will receive 962,812 tourists (317,980 international) generating \$155 million in receipts in 2026; and 1,647,447 tourists (532,597 international) that generate just over \$262 million in 2046. The with-project growth scenario places total arrivals at 973,929 (321,655 international) in 2026, generating just over \$161 million in receipts; and at 1,737,373 million (561,700 international) generating nearly \$285 million in 2046.

c. Forecasts for Output 1 infrastructure subprojects in Vientiane Province

38. Baseline conditions and projections for each infrastructure subproject site are presented in Table 18. The assumptions and forecasts are presented below.

- V1: Nam Ngum Reservoir Access Improvements

Baseline conditions:

- International and domestic arrivals as reported by DICT;
- Receipts calculated using reported reservoir arrivals * assumed length of stay for international and domestic visitors (0.7 day) * provincial average daily expenditure.

Without-project scenario:

- International and domestic arrival growth assumed to be same rate as provincial growth assumptions;
- Receipts calculated using forecasted reservoir arrivals * length of stay as per baseline * provincial average daily expenditure.

With-project scenario:

- International and domestic arrivals growth assumed to be same rate as provincial growth assumptions until 2023, with 3.5% incremental growth during 2023-2030 and 3.0% incremental growth during 2031-2040.
- Average length of stay for both international and domestic tourists is assumed to increase by 0.1 day from 2023 to 2040;
- Receipts calculated using forecasted reservoir arrivals * length of stay * provincial average daily expenditure.

- V2: Kaeng Yui Waterfall Access Improvements

Kaeng Yui Waterfall

Baseline conditions:

- International and domestic arrivals as reported by DICT;
- Receipts as reported by DICT.

Without-project scenario:

- Growth in international and domestic arrivals assumed to be same rate as provincial growth assumptions;
- Receipts growth rate is same rate as arrivals growth rate.

With-project scenario:

- International and domestic arrivals growth assumed to be same rate as provincial growth assumptions until 2023, with 4.0% incremental growth during 2023-2030 and 2.5% incremental growth during 2031-2040;
- Receipts grow at the same rate as arrivals growth rate.

Ban Naduang Homestay

Baseline conditions:

- Homestay guests as reported by DICT;
- Receipts as reported by DICT.

Without-project scenario:

- Homestay guest growth assumed to be the same provincial arrivals growth;
- Receipts growth rate assumed to be the same a guest growth rate.

With-project scenario:

- Homestay guest growth assumed to be the same as provincial arrivals growth until 2023, with 4.0% incremental growth during 2023-2030 and 2.5% incremental growth during 2031-2040;
- Growth in receipts assumed identical to forecasted growth in guests.

- V3: Western Loop Rural Access Road and Bridge Improvements

Baseline conditions:

- International and domestic arrivals at Blue Lagoon 1 and Blue Lagoon 3, as reported by DICT, assumed as proxy for annual arrivals on the Western Loop Road;
- Receipts calculated using assumed annual loop road arrivals * assumed average length of stay of international and domestic visitors (0.5 day) * and provincial average daily expenditure.

Without-project scenario:

- International and domestic arrivals growth is assumed to be the same as provincial growth assumptions;
- Receipts calculated using forecasted loop road arrivals * length of stay as per baseline * provincial average daily expenditure.

With-project scenario:

- International and domestic arrivals growth assumed to be the same as provincial growth assumptions until 2023, with 1.5% incremental growth during 2023-2030, and 1.0% incremental growth during 2031-2040;
- International and domestic tourists' average length of stay assumed to increase by 0.1 day beginning in 2023;
- Receipts calculated as forecasted loop road arrivals * average length of stay * provincial average daily expenditure.

- V4: Vang Vieng Urban Renewal

Baseline conditions:

- International and domestic arrivals as reported by DICT;
- Receipts calculated as * reported Vang Vieng arrivals * reported provincial average length of stay * average daily expenditure;

Without-project scenario:

- International and domestic arrivals growth rate is the same as provincial growth assumptions;
- Receipts calculated using forecasted Vang Vieng arrivals * provincial average length of stay * provincial average daily expenditure;

With-project scenario:

- International and domestic arrivals growth assumed to be the same as provincial growth assumptions, until 2023, with 0.1% incremental growth during 2023-2030, and 0.05% incremental growth during 2031-2040;
- Receipts calculated as forecasted Vang Vieng arrivals * provincial average length of stay * provincial average daily expenditure.

Table 16: Vientiane Province Assumptions for Tourism Forecasts

Indicator	Without Project				With Project			
	2018-2023	2024-2030	2031-2040	2041-2046	2018-2023	2024-2030	2031-2040	2041-2046
International arrivals growth rate	3.7%	4.3%	2.8%	1.3%	3.7%	4.6%	3.0%	1.4%
International length of stay (days)	4.0	4.0	4.0	4.0	4.0	4.1	4.1	4.1
International daily spending (\$)	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Domestic arrivals growth rate	6.9%	4.4%	2.9%	1.4%	6.9%	4.7%	3.2%	1.5%
Domestic length of stay (days)	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1
Domestic daily spending (\$)	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5

Source: Ministry of Information, Culture and Tourism; Vientiane Department of Information, Culture and Tourism; consultant' estimates.

Table 17: Vientiane Province Tourism Forecasts 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026	2036	2046			
Tourist arrivals - Total	579,948	962,812	1,354,796	1,647,447	973,929	1,406,598	1,737,373	11,117	1.2%	51,802	3.8%	89,926	5.5%
International tourists	216,887	317,980	442,733	532,597	321,655	459,680	561,700	3,675	1.2%	16,947	3.8%	29,103	5.5%
Domestic tourists	363,061	644,832	912,063	1,114,850	652,274	946,918	1,175,672	7,442	1.2%	34,856	3.8%	60,822	5.5%
Tourism receipts - Total (\$mln)	99.4	155.0	216.9	262.4	161.1	231.5	284.5	6.2	4.0%	14.6	6.7%	22.1	8.4%
International tourists (\$mln)	69.4	101.8	141.7	170.4	105.5	150.8	184.2	3.7	3.7%	9.1	6.4%	13.8	8.1%
Domestic tourists (\$mln)	30.0	53.2	75.2	92.0	55.6	80.7	100.2	2.4	4.5%	5.5	7.3%	8.3	9.0%
Average receipts per tourist													
International tourists (\$)	320.0	320.0	320.0	320.0	328.0	328.0	328.0	8.0	2.5%	8.0	2.5%	8.0	2.5%
Domestic tourists (\$)	82.5	82.5	82.5	82.5	85.3	85.3	85.3	2.8	3.3%	2.7	3.3%	2.8	3.3%

mln = million

Source: Ministry of Information, Culture and Tourism; Vientiane Department of Information, Culture and Tourism; consultant's estimates.

Table 18: Vientiane Province Tourism Forecasts, by Subproject, 2016-2046

Indicator	Baseline	Without Project			With Project			Incremental With-Project benefits					
	2016	2026	2036	2046	2026	2036	2046	2026		2036		2046	
<u>V1: Nam Ngum Reservoir Access Improvements</u>													
<i>Nam Ngum 1 Reservoir Recreational Area</i>													
Visitor arrivals	51,701	89,029	125,632	153,208	102,715	201,525	279,959	13,686	15.4%	75,893	60.4%	126,750	82.7%
International	9,023	13,229	18,419	22,157	15,265	29,564	40,520	2,036	15.4%	11,145	60.5%	18,363	82.9%
Domestic	42,678	75,800	107,213	131,051	87,450	171,962	239,438	11,650	15.4%	64,748	60.4%	108,387	82.7%
Tourism receipts (\$mln)	1.3	2.2	3.1	3.8	2.9	5.7	7.9	0.7	31.9%	2.6	83.3%	4.1	108.9%
<u>V2: Kaeng Yui Waterfall Access Improvements</u>													
<i>Kaeng Yui Waterfall</i>													
Visitor arrivals	32,050	53,994	76,065	92,603	63,456	123,073	167,492	9,462	17.5%	47,008	61.8%	74,889	80.9%
International - paying	6,468	9,483	13,203	15,883	11,147	21,375	28,748	1,664	17.5%	8,171	61.9%	12,864	81.0%
Domestic - paying	15,468	27,473	38,858	47,498	32,285	62,860	85,889	4,812	17.5%	24,002	61.8%	38,392	80.8%
Non-paying visitors	10,114	17,039	24,004	29,223	20,025	38,838	52,855	2,986	17.5%	14,834	61.8%	23,633	80.9%
Tourism receipts (\$)	188,466	317,507	447,289	544,542	373,145	723,713	984,915	55,637	17.5%	276,424	61.8%	440,373	80.9%
<i>Ban Naduang Homestay</i>													
Homestay guests	1,186	1,776	2,478	2,987	2,088	4,011	5,405	312	17.5%	1,533	61.9%	2,419	81.0%
International	1,065	1,561	2,174	2,615	1,835	3,519	4,733	274	17.5%	1,345	61.9%	2,118	81.0%
Domestic	121	215	304	372	253	492	672	38	17.5%	188	61.8%	300	80.8%
Tourism receipts (\$)	13,150	19,695	27,475	33,117	23,150	44,476	59,934	3,455	17.5%	17,000	61.9%	26,816	81.0%
<u>V3: Western Loop Rural Access Road and Bridge Improvements</u>													
<i>Western Loop Road</i>													
Visitor arrivals	80,830	131,627	184,930	224,525	140,946	227,979	292,217	9,319	7.1%	43,050	23.3%	67,692	30.1%
International	38,500	56,445	78,590	94,542	60,445	96,904	123,075	4,000	7.1%	18,313	23.3%	28,533	30.2%
Domestic	42,330	75,182	106,339	129,983	80,501	131,076	169,142	5,319	7.1%	24,737	23.3%	39,159	30.1%
Tourism receipts (\$mln)	2.4	3.8	5.3	6.4	4.8	7.8	10.0	1.1	28.5%	2.5	47.9%	3.6	56.2%
<u>V4: Vang Vieng Urban Renewal</u>													
<i>Vang Vieng Town</i>													
Visitor arrivals	183,245	312,565	440,751	537,102	317,383	462,451	573,529	4,818	1.5%	21,700	4.9%	36,426	6.8%
International	41,602	60,993	84,923	102,160	61,934	89,109	109,097	941	1.5%	4,186	4.9%	6,938	6.8%
Domestic	141,643	251,572	355,828	434,943	255,449	373,342	464,431	3,877	1.5%	17,513	4.9%	29,489	6.8%
Tourism receipts (\$mln)	25.0	40.3	56.5	68.6	42.1	61.1	75.4	1.8	4.5%	4.5	8.0%	6.8	9.9%

mln=million.

Source: Ministry of Information, Culture and Tourism; Vientiane Department of Information, Culture and Tourism; and consultant's estimates.