ECONOMIC AND FINANCIAL ANALYSIS

A. General

1. The proposed project intends to reconstruct a 240 kilometer (km) long section of the A380 from Km 964 to Km 1204. The A380 highway is the main route between northwest and southeast Uzbekistan. It serves transport demand in the Central Asia Regional Economic Cooperation (CAREC) Corridor 2, an increasingly important international corridor between Afghanistan, Tajikistan, Uzbekistan, Turkmenistan, Kazakhstan, and the Russian Federation. The project section is a straight stretch of road that extends from about 90 km northwest of the industrial town of Kungrad to Daut-Ata on the border with Kazakhstan. It lies within Karakalpakstan, an autonomous republic within Uzbekistan. The low population density results in very little local traffic, and nearly all traffic has destinations outside Uzbekistan. This is reflected in the origin–destination survey results in Table 2, which confirm the international status of this road and its importance to CAREC Corridor 2.

2. This section of the A380 is ill-equipped to support increased heavy goods traffic. It was built in 2002 as a gravel road. Subsequent interventions have led to layers of mixed bitumen and gravel, often referred to as "black gravel." The pavement condition is very poor, with extensive cracking, potholes, and rutting.[1] In some places, the road has deteriorated to gravel road standard. In the with-project scenario, the road will be replaced by a cement concrete pavement with a 250-millimeter surface course on a 160-millimeter dry lean concrete base course. It will remain a two-lane road, with 3.75 meter lane widths, 0.75 meter paved and 3.00 meter unpaved shoulders following category II. Sections adjacent to police and border control points will be widened to four lanes. There will be improved road safety features and rest areas.

3. In the without-project scenario, despite routine maintenance interventions, the road will continue to deteriorate.

B. Demand Estimate

4. Estimates of base year (2018) traffic rely on two sources: classified counts undertaken by the project preparatory technical assistance (TA) consultants from 28 to 31 March 2019, and an estimate of 2018 annual average daily traffic (AADT) based on November 2018 classified counts undertaken by Tashkent Design Institute (TDI). The TA counts, which took place close to Daut-Ata Border Crossing Point (BCP) and comprised two 12-hour weekday counts and one 24-hour weekend count, indicated average daily traffic of 902 vehicles/day. Both day-of-week and seasonality concerns suggest that the TA estimate is likely to underestimate the AADT. Daut-Ata is a gateway for fruit and vegetable exports to Kazakhstan and cotton goods to the Russian Federation.[2] Both are highly seasonal, with high horticultural prices reflecting scarcity from December to May, suggesting that a count in March will underrepresent average traffic.[3]

5. The TDI estimate was based on three 4-hour counts and adjusted to give an estimated AADT of 2,163 vehicles/day (excluding motorcycles).[4]

6. The TDI and TA counts were just 5 months apart. The underlying AADT will not have changed over this period, and differences in estimated AADT reflect sampling and seasonality.

[1] The economic analysis assumes an initial roughness of 6 meters (m)/km.
[2] Asian Development Bank (ADB). 2019. *CAREC Corridor Performance Measurement and Monitoring Annual Report 2018.* Manila.
[3] D. Khidirov, D.F. Larson, and I. Schuman. 2015. *Uzbekistan: Strengthening the Horticultural Value Chain*. Uzbekistan Vision 2030 Background Paper Series. Washington, DC: World Bank.
[4] Standard factors are given in Appendices G and F of MKN 45-2007 "Instructions for traffic counts on motor roads."

The average of the TA and TDI estimates was therefore adopted as a prudent estimate of base year traffic (Table 1). Lower base year traffic is tested as part of sensitivity testing (section E).

7. Counts made in 2016 and 2017 (Table 1) on the same road lend further support to the view that the adopted base year traffic is an appropriate measure of base year demand.

8. Truck-trailers and semitrailers dominate the goods traffic. Nighttime travel is common for all vehicle classes, with about 45% of travel from 6:00 p.m. to 6:00 a.m.

Table 1: Base Year (2018) Motorized Traffic

Section of A380	Year	Cars and Vans	Buses	MGVs and HGVs	Truck-Trailers	AADT (vehicles/day)
Km 367	2016	1,258	10	123	217	1,608
Km 325	2017 (Aug)	1,628	67	679	329	2,703
Km 964–Km 1204 (TDI)	2018	1,391	75	136	561	2,163
Km 1186 (TA)	2019 (Mar)	694	11	18	179	902
Adopted base year (2018) traffic		1,043	43	77	370	1,533

AADT = annual average daily traffic, HGV = heavy goods vehicle, MGV = medium goods vehicle, TA = technical assistance, TDI = Tashkent Design Institute.
Sources: Project preparatory technical assistance consultants' estimates; Tashkent Design Institute TDI and CAREC Corridor 2 road investment program; ADB. 2018. *Completion Report: CAREC 2 Road Development Program Project 3.* Manila.

9. The TA consultants also undertook an origin–destination survey at the site used for the classified counts. The results are striking (Table 2). Only 6% of one-way movements are local (intra-Uzbekistan), while 11% are in transit and the remainder are international trips between Uzbekistan and its trading partners. Migrant labor is likely to be a significant factor in cross-border passenger vehicle movements.

Table 2: Origin–Destination Survey Results

	Destination						
Origin	**Uzbekistan**	**Kazakhstan**	**Russian Federation**	**Europe**	**Tajikistan**	**Turkmenistan**	**Total (%)**
Uzbekistan	6.2	18.5	18.5	9.9			**53.1**
Kazakhstan	14.8						**14.8**
Russian Federation	12.3				4.9	1.2	**18.5**
Europe	8.6				3.7	1.2	**13.6**
Total (%)	**42.0**	**18.5**	**18.5**	**9.9**	**8.6**	**2.5**	**100.0**

Note: Numbers may not sum precisely because of rounding.
Source: Project preparatory technical assistance consultants' estimate.

10. The local agencies of the Committee for Roads collect annual traffic data on the main road network. These data indicate an annual growth rate of 2.1% on the project road section from 2015 to 2018. Data from the State Customs Committee on the number of vehicle crossings and goods transported (combined exports and imports) across the border with Kazakhstan during 2014–2018 indicate annual car traffic growth of 22%, while freight tonnage grew at an annual rate of 4.8%.

11. Uzbekistan's gross domestic product (GDP) growth has been strong, averaging 8% per year from 2005 to 2015. Growth subsequently weakened, however, and the most recent Asian Development Bank (ADB) forecasts are 4.7% in 2020 and 5.8% in 2021.[5] The International Monetary Fund's most recent longer-term forecast remains at 6.0% for 2024.[6] In the absence of compelling quantitative evidence of historic traffic growth, forecast transport

[5] ADB. 2019. *Asian Development Outlook 2020: What Drives Innovation in Asia ?* Manila.
[6] International Monetary Fund. 2019. World Economic Outlook 2019. Washington, D.C.

demand is assumed to be a function of GDP growth and income elasticities. The values adopted are shown in Table 3.

12. The use of growth rates in Table 3 implies an AADT at the end of the evaluation period in 2052 of 6,200 vehicles/day (including 9% estimated generated traffic). At this volume, given the uniform traffic flow pattern, no congestion effects are anticipated.

Table 3: Forecast Traffic Growth Rates

Period	Traffic Growth Rate as a Percentage (elasticity)[a]		
(GDP growth)	Car	Bus	Goods Vehicles[b]
2019 (4.7%)	5.2 (1.1)	3.3 (0.7)	3.3 (0.7)
2020 (5.8%)	5.2 (0.9)	3.5 (0.6)	3.5 (0.6)
2021–2028 (6%)	5.0 (0.83)	3.0 (0.5)	3.0 (0.5)
From 2029 (5%)	4.0 (0.8)	2.0 (0.4)	3.0 (0.6)

GDP = gross domestic product.
[a] Assumed income elasticities shown in parentheses after growth rates.
[b] Category includes light goods and vans (about 2% of fleet).
Source: Project preparatory technical assistance consultants' estimate.

B. Economic Costs

13. The economic costs of the project comprise (i) capital investment, which includes civil works, land acquisition and resettlement, and consulting services for construction supervision and social safeguard management; and (ii) road maintenance.

14. About 75% of the new alignment will follow the course of an old gravel road. Where this is not the case, the successful contractor will construct diversions. On average, these diversions will add 20 km to the journey length and be in place for about 18 months of the construction period. The additional road user cost is estimated at $9.6 million and is treated as an additional project recurrent cost during construction.

15. Financial costs are converted to economic costs in line with ADB guidelines. All predicted project costs and benefits are measured in 2019 domestic economic prices, expressed in United States dollars. All traded costs and benefits are multiplied by the shadow exchange rate factor, estimated at 1.04.[7] Non-traded items (including journey time savings) are multiplied by 1.0. A shadow wage rate factor (SWRF) of 0.6 was estimated and applied to unskilled labor, while an SWRF of 1.0 was applied to skilled and professional labor.[8]

16. Financial land acquisition and resettlement costs are usually broken down into their constituent elements (principally land, materials, skilled and unskilled labor, and taxes) before applying shadow prices. This level of detail was not available, however, and an assumed conversion factor of 1.0 was applied.

17. Straight-line deprecation is used to estimate a residual value of 20%. Maintenance of the proposed concrete pavement is assumed limited to routine maintenance at an economic cost of $1,500/km/year. Little information on maintenance practices is available. For evaluation purposes, it is assumed to comprise patching at an economic unit cost of $21 per square meter, undertaken annually with a 6-month time lapse, plus routine maintenance at the same unit rate as the with-project scenario.

[7] Using the ADB simplified method, based on merchandise imports of $13.9 billion, exports of $13.3 billion, and estimated taxes on trade of $973 million (import and export data from World Bank data and tax estimate based on weighted average tariff rates).
[8] An approximation based on the ratio of wages for agricultural workers and construction workers obtained through local enquiry.

Table 4: Project Investment Costs

Intervention	Financial Cost, Excluding VAT ($ million)	Conversion Factor	Economic Cost ($ million)
Civil works, including ITS and weigh-in-motion systems	240.8	1.02[a]	245.5
Physical contingencies	11.8	1.02[a]	12.0
Consulting services	7.2	1.02[b]	7.3
Community development	1.1	1.00	1.1
PMU	3.1	1.00	3.1
Land acquisition and resettlement	0.77	1.00	0.8
Total excluding VAT	**265**		**270**
Total per km of new road	**1.10**		**1.12**

ITS = intelligent transport system, km = kilometer, PMU = project management unit, VAT = value-added tax.
[a] Treated as traded but allowing for 5% unskilled labor at a shadow wage rate factor of 0.6.
[b] Treated as 50% traded and 50% skilled labor.
Source: Asian Development Bank estimates.

C. Economic Benefits

18. The main quantifiable economic benefits are vehicle operating cost (VOC) savings, savings in travel time, and environmental benefits from reduced vehicle emissions. Road safety benefits have not been included because of lack of data.

19. **Vehicle operating cost savings.** To quantify VOC savings, the technical and operational characteristics of the vehicle fleet were assessed—including the price of vehicles, tires, and fuel, as well as maintenance and vehicle operation staff costs—estimated from available sources for 2019, cross-checked against data collected in 2014, and updated to 2019 price levels.[9]

20. **Travel time cost savings**. Travel time savings have been calculated based on the vehicle speed relationships included in the Fourth Highway Development and Management Model (HDM-4), which identify the number of minutes saved for each vehicle trip. These benefits have been monetized by applying values of time estimated for different categories of road users. Values of time for 2019 were assessed from Uzbek statistics and are shown in Table 5. Nonworking time is valued at 30% of working time. Future values of time are assumed to grow at a real rate of 2% per year.

21. Changes in pavement quality affect engine performance, which affects tailpipe greenhouse gas emissions. The HDM-4 calculates emissions from fuel consumption. Using the recommended ADB unit value of $36.30 per ton in 2016 ($40.70 per ton at 2019 prices), the stream of emission reduction benefits has a present value of $2.5 million.

Table 5: Adopted Values of Passenger Working and Non-Working Time

Vehicle Type	Value of Working Time ($/hour)	Value of Non-working Time ($/hour)
Car and SUV	1.6[a]	0.5
Bus	1.1[b]	0.3

[a] Based on the 2019 average monthly salary.
[b] Based on the occupational group with the lowest reported average salary (health care workers).
Source: State Committee of the Republic of Uzbekistan on Statistics (2019).

22. Goods in transit are unproductive, as they represent inventory costs, so there is a value in reducing travel time. Horticulture suppliers' prices[10] reported in 2012**Error! Bookmark not defined.** ranged from $0.3 per kilogram for melons to $2 per kilogram for table grapes. Therefore, a

[9] PADECO. 2014. Strategic Network Level Assessment Volume 2: HDM-4 Calibration. Prepared for Republican Road Fund under Loan No. 2635-UZB CAREC Corridor 2 Road Investment Program Project 1, MFF/RAMS.
[10] Suppliers' prices are wholesale prices in export markets less transport, packaging, taxes and duties.

payload of 7–12 tons would have a value of $2,000–$24,000 and a value of $0.02–$0.2 per hour saved, at a discount rate of 9%. A representative value of $0.1 per vehicle hour is adopted. [11]

23. Observed vehicle operating speeds are not available. For the without-project scenario, the HDM-4 predicts initial speeds of 65–70 km per hour (km/h), dropping to about 30 km/h at the end of the evaluation period. In the with-project case, speeds rise to 70–75km/h and remain at that level throughout the analysis period.

24. Fleet average VOC components in terms of International Roughness Index (IRI) are shown in Table 6.

Table 6: Vehicle Operating Cost Components
($/vehicle-km)

IRI (m/km)	Fuel	Spares	Capital[a]	Others[b]	Total[c]
2.5	0.099	0.106	0.075	0.050	0.330
7.0	0.103	0.153	0.094	0.059	0.410
12.0	0.115	0.196	0.133	0.072	0.520

IRI = International Roughness Index, km = kilometer, m = meter
[an] Equivalent annual cost of vehicle, computed using the optimal life approach.
[b] Includes maintenance, crew costs, tires, and overheads.
[c] Fleet composition in 2030 used throughout.
Source: Asian Development Bank estimates.

25. VOC and journey time savings across the fleet over the evaluation period are summarized in Table 7.

Table 7: Vehicle Operating Cost and Journey Time Savings

Item	Without Project		With Project		Saving
	IRI	$/veh-km	IRI	$/veh-km	$/veh-km
VOC	9.5[a]	0.51	2.8[a]	0.34	0.17
Journey time savings		0.12		0.04	0.08

IRI = international roughness index, veh-km = vehicle-kilometer, VOC = vehicle operating cost.
[a] Average during 2023–2052.
Source: Asian Development Bank estimates.

26. Distribution analysis for a project with multiple types of traffic is challenging. Benefits accruing to the poor have therefore been inferred from the vehicle class. VOC savings tend to accrue to vehicle owners and operators in the form of producer surplus, although in the long run some should be passed on to consumers in the form of lower fares and freight rates (consumer surplus). Most journey time savings accrue to passengers. This analysis has no data on the poverty status of vehicle operators or passengers, and can only make reasonable assumptions. Essentially, bus and motorcycle passengers are expected to form the largest groups of poor beneficiaries, with smaller proportions of cars, medium goods vehicles, and van road user cost (RUC) savings making up the remainder. These proportions of undiscounted benefits are then divided by the total benefits to estimate that 9% of benefits will accrue to the poor. This low percentage arises from the high proportion of heavy goods vehicles in the fleet.

[11] Much higher values may be appropriate if goods are time-sensitive or when journey time savings enable an additional trip per month (say), but in this case Border Crossing Point (BCP) delays are likely to mask any such benefits.

D. Results of Economic Analysis

27. An economic analysis of the project was carried out according to ADB guidelines.[12] The analysis compared the incremental benefits of reductions in VOCs, travel times, and vehicle emissions with the initial investment costs and changes in operation and maintenance costs over a 33-year appraisal period (3 years of implementation and 30 years of operation). The main assumptions used are listed in Table 8.

Table 8: Main Assumptions

Assumption	Value
Price base year	2019
Discount year	2019
Currency of analysis	US dollar
Construction start year	2020
Construction end year	2022
First year of benefits	2023
Appraisal period	3 years of implementation and 30 years of operation
Numeraire used	Domestic price numeraire
Income elasticity of demand	Cars: 1.1 (2018) to 0.8 (from 2029) Buses: 0.7 (2018) to 0.4 (from 2029) Goods: 0.7 (2018) to 0.6 (from 2029)
Value of time (in work, 2019)	$1.6/hour (car passengers) $1.1/hour (bus passengers)
Value of time (non-work, 2019):	$0.5/hour (car) $0.3/hour (bus passengers)
GDP growth assumption	2019 and 2020: 4.7% and 5.8% 2024: 6.0%
Shadow wage rate factor	0.6 (unskilled)
Shadow exchange rate factor	1.04
Conversion factor applied to construction	1.04
Conversion factor applied to supervision	1.00
Conversion factor applied to taxes, duties, profits, transfers	0.00

Source: Project preparatory technical assistance consultants' estimate.

28. The results of the economic analysis are summarized in Table 9, expressed in terms of the key economic indicators: benefit–cost ratio, economic internal rate of return (EIRR), and net present value (NPV) at a 9% discount rate. The project has an EIRR of 11.0% and is therefore economically viable. The cost and benefit streams are in Table 11.

Table 9: Results of Economic Analysis

Project Road	EIRR (%)	NPV ($ million)	Benefit–Cost Ratio
A380 (Km 964–Km 1204)	11.0	81	1.4

EIRR = economic internal rate of return, km = kilometer, NPV = net present value.
Note: The NPV uses a 9% discount rate.
Source: Asian Development Bank estimates.

29. Sensitivity tests were carried out to determine the effect of variations in key input parameters. Table 10 shows a switching value of 137% with respect to costs, meaning that the project remains economically viable if construction costs were to rise by up to 37%. The switching value with respect to benefits is 74%, meaning that project viability is sustained if benefits fall to up to 74% of base values. At 8.4%, the project EIRR is slightly below the 9% threshold if both costs are increased and benefits reduced by 20%. A 2-year delay increases the EIRR slightly, as a result of increased traffic on opening, but reduces the NPV.

30. Two additional tests were carried out. The first assesses the impact of reducing base year traffic by 20% and subsequent growth to 2% throughout the evaluation period. This

[12] ADB. 2017. *Guidelines for the Economic Analysis of Projects*. Manila.

reflects uncertainties over both the base year traffic and subsequent economic (and traffic) growth. The AADT at the end of the evaluation period is 3,000 vehicles/day, compared with 6,200 vehicles/day in the base case. The EIRR drops to 6.9%, well below the 9% threshold.

31. The second additional test recognizes the significance of VOC savings. Spare parts consumption is a significant component of VOCs (Table 6) and is linked to vehicle-km driven and pavement conditions by a "rotation factor" whose default value is 1.0. For the sensitivity test, this is reduced to 0.4,[13] which on average reduces VOC savings by about 30%. While this is a significant drop in VOC benefits, the EIRR remains slightly higher than the hurdle rate at 9.1%.

Table 10: Sensitivity Analysis Results

Case	EIRR (%)	NPV ($ million)	Switching Value
Base case	11.0	81	
Cost +20%	9.8	37	137%
Benefits –20%	9.5	19	74%
Cost + 20% and benefits –20%	8.4	(25)	
2-year delay	11.5	77	
Base year traffic growth reduced by 20% and subsequent growth to 2%	6.9	(62)	
Reduced spare parts consumption	9.1	4	

( ) = negative, EIRR = economic internal rate of return, NPV = net present value.
Source: Asian Development Bank estimates.

Table 11: Cost and Benefit Streams
(2019 domestic prices, $ million, undiscounted)

Year	Incremental Costs		Incremental Benefits			Total Benefits	Net Benefits
	Capital Works	Recurrent Works	VOC Savings	Journey Time Savings	Emission Reductions		
2019	0.0	0.00	0.0	0.0	0.0	0.0	0.0
2020	54.0	3.20[a]	0.0	0.0	0.0	0.0	(57.2)
2021	108.0	3.20[a]	0.0	0.0	0.0	0.0	(111.2)
2022	108.0	3.20[a]	0.0	0.0	0.0	0.0	(111.2)
2023	0.0	(0.01)	12.2	1.0	0.0	13.3	13.3
2024	0.0	(0.01)	13.4	1.3	0.0	14.7	14.7
2025	0.0	(0.02)	14.6	1.6	0.0	16.2	16.2
2026	0.0	(0.02)	15.9	1.9	0.0	17.8	17.8
2027	0.0	(0.02)	17.3	2.3	0.0	19.6	19.6
2028	0.0	(0.02)	18.8	2.7	0.0	21.6	21.6
2029	0.0	(0.03)	20.4	3.2	0.0	23.6	23.6
2030	0.0	(0.03)	22.1	3.7	0.0	25.8	25.9
2031	0.0	(0.03)	24.0	4.3	0.0	28.3	28.3
2032	0.0	(0.03)	26.0	5.0	0.0	30.9	31.0
2033	0.0	(0.03)	28.1	5.7	0.0	33.8	33.9
2034	0.0	(0.03)	30.4	6.6	0.0	37.0	37.0
2035	0.0	(0.03)	32.9	7.5	0.0	40.5	40.5
2036	0.0	(0.03)	35.6	8.6	0.1	44.3	44.4
2037	0.0	(0.03)	38.5	9.8	0.2	48.5	48.6
2038	0.0	(0.04)	41.7	11.2	0.3	53.2	53.2
2039	0.0	(0.04)	45.2	12.7	0.4	58.2	58.3
2040	0.0	(0.04)	48.9	14.4	0.5	63.8	63.8
2041	0.0	(0.04)	52.9	16.3	0.7	69.9	69.9
2042	0.0	(0.04)	57.2	18.5	0.8	76.6	76.6
2043	0.0	(0.04)	62.0	20.9	1.0	83.9	83.9
2044	0.0	(0.04)	67.0	23.6	1.3	91.9	91.9
2045	0.0	(0.04)	72.5	26.6	1.6	100.7	100.7
2046	0.0	(0.05)	78.5	29.9	1.9	110.3	110.3
2047	0.0	(0.05)	84.9	33.6	2.2	120.8	120.8
2048	0.0	(0.05)	91.9	37.8	2.7	132.4	132.5

[13] For further background see Transportation Research Board. 2012. *NCHRP Report 720: Estimating the Effects of Pavement Condition on Vehicle Operating Costs*. Washington DC.

Year	Incremental Costs		Incremental Benefits			Total Benefits	Net Benefits
	Capital Works	Recurrent Works	VOC Savings	Journey Time Savings	Emission Reductions		
2049	0.0	(0.05)	99.4	42.6	3.2	145.1	145.2
2050	0.0	(0.05)	107.6	47.8	3.7	159.1	159.1
2051	0.0	(0.05)	116.4	53.7	4.1	174.1	174.2
2052	(54.0)	(0.06)	123.4	58.8	4.3	186.5	240.6
					EIRR		**11.0%**
					NPV, 9%		**81**
					BCR		**1.4**

( ) = negative, BCR = benefit–cost ratio, EIRR = economic internal rate of return, NPV = net present value, VOC = vehicle operating cost.
[a] Costs of diversion during construction.
Source: Asian Development Bank estimates.

F. Financial Analysis

32. The project is nonrevenue generating, so the objective of the analysis is to ensure that it is financially sustainable. With a new concrete pavement, the project is expected to reduce the periodic and routine maintenance requirements considerably. The HDM-4 analysis used for the economic evaluation estimated an annual without-project cost of about $0.40 million per annum, falling to about $0.37 million in the with-project case.

33. Planned and historic expenditure is shown in Table 12. Maintenance spending on the core network of about 43,000 km has risen by a factor of nearly three from about $2,800 per km in 2007–2012 to about $7,700 per km in 2015–2019. Despite devaluation of the SUM in 2017, road maintenance budgets in 2018–2020 have been sustained in United States dollar terms. The projected maintenance estimate for 2019 and 2020 is about $7,800 per km, which greatly exceeds the estimated annual maintenance requirement for the project road. It can be concluded that sufficient maintenance funding will be allocated over the life of the project.

Table 12: Actual (2016–2018) and Forecast (2019–2020) Roads Expenditure
(SUM billion)

Expenditure (Actual/Projected)	2016	2017	2018	2019	2020
Construction expenditure	1,097.9	698.5	808.1	1,827.4	2,097.6
Maintenance expenditure	1,196.6	1,523.5	2,816.2	2,664.0	3,052.6
Equipment and technology	51.8	125.6	567.4	250.0	400.0
Total (SUM billion)	**2,346.2**	**2,347.5**	**4,191.7**	**4,741.4**	**5,550.2**
Maintenance expenditure ($ million)[a]	**400**	**300**	**350**	**310**	**360**
Maintenance expenditure ($/kilometer)	**9,500**	**7,000**	**8,200**	**7,300**	**8,300**

[a] At prevailing exchange rates (2020 rate was assumed to be same as the 2019 rate).
Source: Project Implementation Unit (PIU), Ministry of Transport, Committee for Roads, Uzbekistan.

34. The lifetime maintenance requirements of concrete roads are lower than those with bituminous pavement. As more concrete roads are constructed, as the government intends, this reduces claims on the maintenance budget, releasing more resources for the remainder of the network. This will improve the overall sustainability of the network.