

DIRECCIÓN NACIONAL DE VIALIDAD

COSTOP

Costo de Operación de Vehículos

MARZO 2023



Vialidad Nacional

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INTRODUCCIÓN

La presentación contenida en esta publicación de la **DIRECCIÓN NACIONAL DE VIALIDAD** tiene como objetivo básico ofrecer los **“COSTOS DE OPERACIÓN DE VEHÍCULOS”** a valores correspondientes al mes de marzo de 2023.

Creemos oportuno realizar algunas consideraciones de índole técnica con relación al concepto **“COSTO DE OPERACIÓN”**, de manera de ampliar el significado implícito en su definición.

El **“COSTO DE OPERACIÓN”** de un camino se traduce, para el usuario de la infraestructura en un concepto de **“COSTO MONETARIO”**; esto es, mide el consumo, en términos de dinero, que le representa al usuario, operar en una determinada vía. El mismo se determina bajo el supuesto de que el trazado del camino que se recorre es recto y pertenece a la categoría de topografía llana. La unidad con que se expresa el **“COSTO DE OPERACIÓN”** es el **“\$/Km”**; o sea, se trata de un valor en pesos por unidad de longitud de circulación, tomando a ésta como de **“1 Km”**.

Asimismo, esta publicación presenta a los costos de operación clasificados en **“COSTOS DE OPERACIÓN DEL USUARIO”** y **“COSTOS DE OPERACIÓN DE LA COMUNIDAD”**. Los **“COSTOS DE OPERACIÓN DEL USUARIO”** se calculan en función de precios de insumos a valores de mercado y los **“COSTOS DE OPERACIÓN DE LA COMUNIDAD”** se obtienen corrigiendo estos precios a valores económicos, de manera de representar a los mismos libres de la carga impositiva; o sea, sin considerar los subsidios, impuestos y transferencias.

Para una mejor comprensión de estos conceptos, se definen a continuación los distintos tipos de precios empleados en esta consideración:

- **Precio del usuario o precio de mercado o precio financiero**: es el precio que tiene un bien en el mercado. Si se trata de un bien importado, su valor financiero es igual al precio de la moneda de origen por el tipo de cambio correspondiente.
- **Precio de la comunidad o precio de cuenta o precio económico o precio social o precio sombra**: representa el costo en el que incurre la economía de una sociedad para producir un bien antes que cualquier tipo de factor modifique su valor, tal como impuestos, tasas, subsidios, rentas, o conversiones de algún tipo de cambio que resulte de un valor distinto al de un mercado en el que las divisas se intercambian libremente.
- **Factor de conversión**: es el índice que convierte un valor de mercado en un valor económico y viceversa.

Los Costos de Operación de Vehículos han sido calculados con precios y datos promedios, tanto para los usuarios, como para la comunidad; a valores actualizados al mes de marzo de 2023; para la siguiente clasificación vehicular: automóviles, ómnibus, camiones livianos y camiones pesados; para calzadas pavimentadas, de ripio y de tierra y para velocidades de circulación que oscilan entre 5 y 120 km/h.

El anuario de “**COSTOS DE OPERACIÓN DE VEHÍCULOS**” presenta los siguientes capítulos:

Capítulo 1: DATOS DE ENTRADA

Las tablas presentadas en este capítulo contienen los datos generales de entrada tomados a marzo de 2023 y en todo el país. Estos datos son utilizados como base para el cálculo de los Costos de Operación de Vehículos de la Comunidad y del Usuario.

Seguidamente al capítulo de Datos de Entrada, se desarrollan los capítulos vinculados a cada Clasificación Vehicular, estos capítulos son los siguientes:

Capítulo 2: AUTO - CAMIONETA

Capítulo 3: ÓMNIBUS

Capítulo 4: CAMIÓN LIVIANO

Capítulo 5: CAMIÓN PESADO

Dentro de los capítulos de Clasificación Vehicular, se representan las siguientes tablas:

PLANILLAS RESUMEN

Contienen los “**COSTOS DE OPERACIÓN DE LA COMUNIDAD Y DEL USUARIO**”, a valores de marzo de 2023, dependientes del tiempo y del recorrido para cada clasificación vehicular, para cada tipo de calzada y en función de la velocidad de circulación. A cada una de estas planillas, se le adjunta un gráfico que muestra la variación de los mismos en función de la velocidad.

COSTOS DE OPERACIÓN DE VEHÍCULOS, DE LA COMUNIDAD Y DEL USUARIO

Estas planillas detallan los costos de operación de la comunidad y del usuario para cada tipo de vehículo, para cada superficie de rodamiento y para cada velocidad.

PLANILLAS DE CONSUMOS

En estas planillas se señalan las cantidades de los consumos de combustible, lubricante y duración de cubiertas que requiere cada tipo de vehículo, de acuerdo a cada superficie de rodamiento y para cada velocidad del recorrido. A cada una de estas planillas se le adjunta un gráfico que muestra la variación de los mismos en función de la velocidad.

VARIACIÓN DE COSTOS DE OPERACIÓN DE LA COMUNIDAD Y DEL USUARIO

En estas planillas se comparan los costos de operación del año 2022 con los del 2023 para cada tipo de vehículo, de acuerdo a cada superficie de rodamiento y para cada velocidad del recorrido.

OBSERVACIÓN

Para las topografías de camino “Ondulada” y “Montañosa”, los costos de operación de las planillas resumen se incrementan en los porcentajes que se indican a continuación:

TOPOGRAFÍA ONDULADA _____ 5%

TOPOGRAFÍA MONTAÑOSA _____ 10%



CAPÍTULO 1

DATOS DE ENTRADA



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DATOS DE ENTRADA PARA EL CÁLCULO DE LOS COSTOS DE OPERACIÓN

COSTOS GENERALES			
Costo		Económico	Financiero
PRECIOS	NAFTA "PREMIUM" (\$/lt):	157,40	219,90
	NAFTA "SUPER" (\$/lt):	118,80	174,00
	GAS OIL GRADO 3 (\$/lt):	197,50	260,90
	GAS OIL GRADO 2 (\$/lt):	135,70	186,30
	LUBRICANTE VEHÍCULOS LIVIANOS (\$/lt):	3.213,00	4.000,00
	LUBRICANTE VEHÍCULOS PESADOS (\$/lt):	1.000,00	1.260,00

FRECUENCIA DE LAVADO (Km)			
	PAVIMENTO	RIPIO	TIERRA
AUTOMOVIL	6.000	4.500	3.750
OMNIBUS	2.000	1.400	1.400
CAMION LIVIANO	4.000	3.000	3.000
CAMION PESADO	4.000	3.000	3.000

DATOS DE ENTRADA PARA EL CÁLCULO DE LOS COSTOS DE OPERACIÓN

	DATOS	AUTOMOVILES	OMNIBUS	CAMION LIVIANO	CAMION PESADO
GENERALES	Potencia (HP)	104	355	187	310
	% vehículos a nafta "Premium"	30	---	---	---
	% vehículos a nafta "Super"	70	---	---	---
	% veh. Gas Oil Grado 3:	---	33	33	33
	% veh. Gas Oil Grado 2:	---	67	67	67
	Vida útil del parque (años)	8	8	10	10
	% viajes (trabajo)	75	75	100	100
	Factor ocupación (trabajo)	2,4	32	---	---
	Factor ocupación (otros)	2,4	---	---	---
	Nº asientos para pasajeros	---	48	---	---
	Nº personal de conducción	---	2	1	1
	Tasa de Interés gastos (%)	---	12	12	12
	Tasa interés, depreciación (%)	12	12	12	12
	Tara (tn)	---	9,5	6	12
	Capacidad de carga (tn)	---	2,5	10	33
Coeficiente de utilización (%)	---	---	0,6	0,6	
NEUMATICOS	Cantidad	4	8	6	18
	Nº auxilios	1	2	1	2
	Nº vueltas/Km	531	290	328	305
RECAPADAS	% recapadas	0	---	65	80
	% incremento vida útil	0	---	40	40

DATOS DE ENTRADA PARA EL CÁLCULO DE LOS COSTOS DE OPERACIÓN

Tipo de vehículo	AUTOMOVIL		OMNIBUS		CAMION LIVIANO		CAMION PESADO		
	Económico	Financiero	Económico	Financiero	Económico	Financiero	Económico	Financiero	
VALORES (\$)	Valor del 0 Km	5.103.030	7.900.000	55.436.214	80.000.000	9.354.861	13.500.000	20.788.580	30.000.000
	Neumático	51.270	64.600	261.900	330.000	138.890	175.000	261.900	330.000
	Recapado	---	---	---	---	42.169	52.500	79.518	99.000
	Lavado	2.169	2.700	6.750	6.750	4.554	5.670	6.210	6.210
	Seguro anual	216.981	276.000	2.264.151	2.880.000	477.594	607.500	1.061.321	1.350.000
	Impuestos y patentes anuales	355.500	355.500	1.040.000	1.040.000	270.000	270.000	600.000	600.000
	Garage anual	184.252	234.000	---	---	---	---	---	---
	Mano de obra mant. (\$/h)	1.375	1.712	1.375	1.375	1.375	1.712	1.375	1.375
TIEMPOS DE VIAJE (\$/hs)	Conductor (motivo trabajo)	1.960	1.960	---	---	---	---	---	---
	Conductor (otros motivos)	590	590	---	---	---	---	---	---
	Pasajero (motivo trabajo)	860	860	860	860	---	---	---	---
	Pasajero (otros motivos)	260	260	260	260	---	---	---	---
SALARIOS (\$/mes)	Salario del chofer (\$/mes)	---	---	530.000	530.000	495.000	495.000	660.000	660.000



CAPÍTULO 2

AUTO - CAMIONETA



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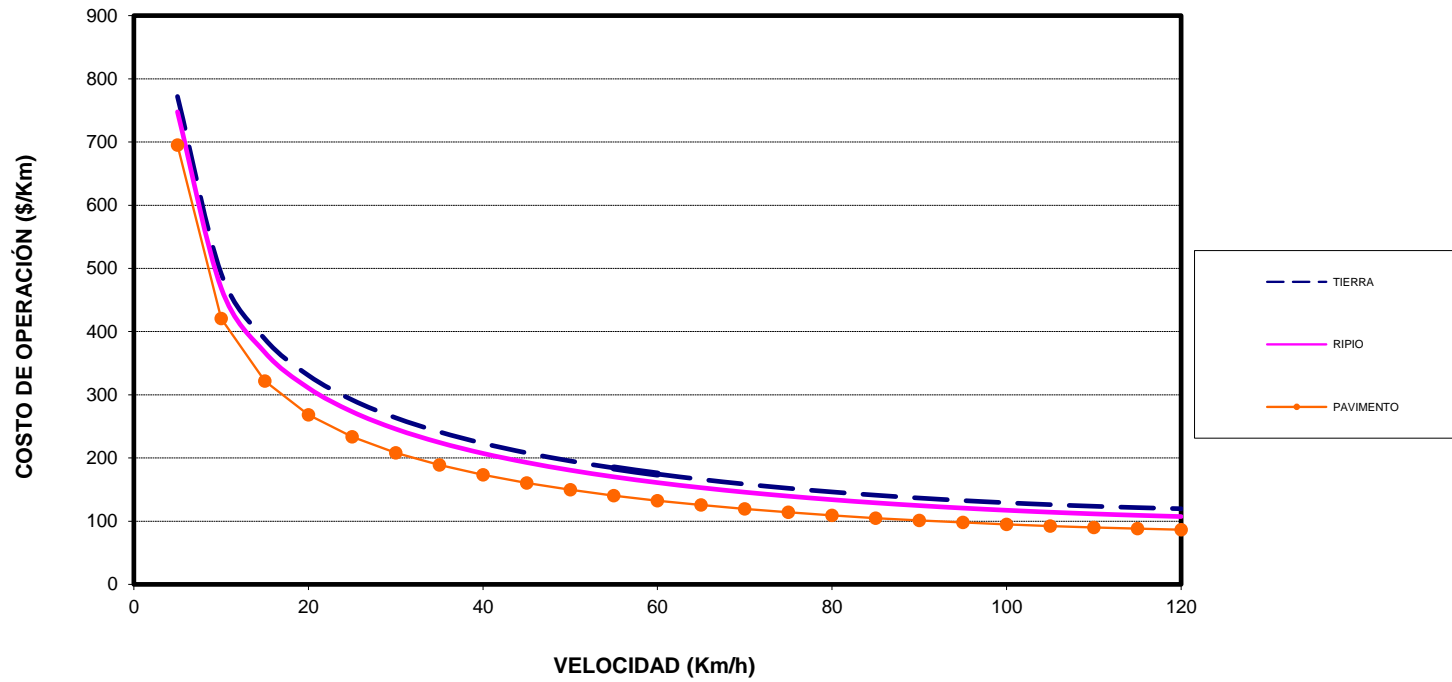


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **AUTO - CAMIONETA**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	
5	91,07160	158,65847	249,73007	522,30000	772,03007	77,28658	148,08124	225,36781	522,30000	747,66781	61,60243	111,06093	172,66336	522,30000	694,96336	5
10	85,24870	145,43693	230,68564	261,15000	491,83564	72,27108	135,74113	208,01221	261,15000	469,16221	57,48314	101,80585	159,28899	261,15000	420,43899	10
15	80,06177	134,24947	214,31124	174,10000	388,41124	67,81787	125,29951	193,11738	174,10000	367,21738	53,80729	93,97463	147,78192	174,10000	321,88192	15
20	75,41281	124,66023	200,07303	130,57500	330,64803	63,83553	116,34954	180,18508	130,57500	310,76008	50,50632	87,26216	137,76848	130,57500	268,34348	20
25	71,22996	116,34954	187,57950	104,46000	292,03950	60,25706	108,59291	168,84997	104,46000	273,30997	47,52994	81,44468	128,97462	104,46000	233,43462	25
30	67,45933	109,07770	176,53703	87,05000	263,58703	57,03221	101,80585	158,83807	87,05000	245,88807	44,84039	76,35439	121,19478	87,05000	208,24478	30
35	64,05972	102,66136	166,72108	74,61429	241,33537	54,12258	95,81727	149,93986	74,61429	224,55414	42,40880	71,86295	114,27175	74,61429	188,88604	35
40	60,99907	96,95795	157,95702	65,28750	223,24452	51,49832	90,49409	141,99241	65,28750	207,27991	40,21264	67,87057	108,08321	65,28750	173,37071	40
45	58,25208	91,85490	150,10698	58,03333	208,14031	49,13587	85,73124	134,86711	58,03333	192,90045	38,23412	64,29843	102,53256	58,03333	160,56589	45
50	55,79850	87,26216	143,06066	52,23000	195,29066	47,01642	81,44468	128,46110	52,23000	180,69110	36,45893	61,08351	97,54244	52,23000	149,77244	50
55	53,62196	83,10682	136,72877	47,48182	184,21059	45,12475	77,56636	122,69111	47,48182	170,17293	34,87542	58,17477	93,05019	47,48182	140,53201	55
60	51,70904	79,32923	131,03827	43,52500	174,56327	43,44843	74,04062	117,48905	43,52500	161,01405	33,47399	55,53046	89,00445	43,52500	132,52945	60
65	50,04867	75,88014	125,92880	40,17692	166,10573	41,97722	70,82146	112,79868	40,17692	152,97560	32,24660	53,11610	85,36269	40,17692	125,53962	65
70	48,63162	72,71847	121,35009	37,30714	158,65723	40,70260	67,87057	108,57316	37,30714	145,88031	31,18647	50,90293	82,08940	37,30714	119,39654	70
75	47,45015	69,80973	117,25988	34,82000	152,07988	39,61744	65,15574	104,77318	34,82000	139,59318	30,28780	48,86681	79,15461	34,82000	113,97461	75
80	46,49770	67,12474	113,62243	32,64375	146,26618	38,71573	62,64975	101,36548	32,64375	134,00923	29,54555	46,98732	76,53287	32,64375	109,17662	80
85	45,76867	64,63864	110,40731	30,72353	141,13084	37,99238	60,32939	98,32177	30,72353	129,04530	28,95531	45,24704	74,20235	30,72353	104,92588	85
90	45,25829	62,33011	107,58841	29,01667	136,60507	37,44305	58,17477	95,61782	29,01667	124,63449	28,51315	43,63108	72,14423	29,01667	101,16089	90
95	44,96243	60,18080	105,14323	27,48947	132,63271	37,06404	56,16875	93,23278	27,48947	120,72226	28,21558	42,12656	70,34213	27,48947	97,83161	95
100	44,87751	58,17477	103,05229	26,11500	129,16729	36,85216	54,29645	91,14861	26,11500	117,26361	28,05942	40,72234	68,78176	26,11500	94,89676	100
105	45,00042	56,29817	101,29859	24,87143	126,17002	36,80467	52,54496	89,34962	24,87143	114,22105	28,04179	39,40872	67,45050	24,87143	92,32193	105
110	45,32844	54,53885	99,86729	23,74091	123,60820	36,91921	50,90293	87,82213	23,74091	111,56304	28,16005	38,17719	66,33725	23,74091	90,07815	110
115	45,85917	52,88616	98,74533	22,70870	121,45402	37,19374	49,36041	86,55416	22,70870	109,26285	28,41180	37,02031	65,43211	22,70870	88,14080	115
120	46,59050	51,33068	97,92118	21,76250	119,68368	37,62652	47,90864	85,53516	21,76250	107,29766	28,79483	35,93148	64,72630	21,76250	86,48880	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DE LA COMUNIDAD**
VEHÍCULO: **AUTO - CAMIONETA**



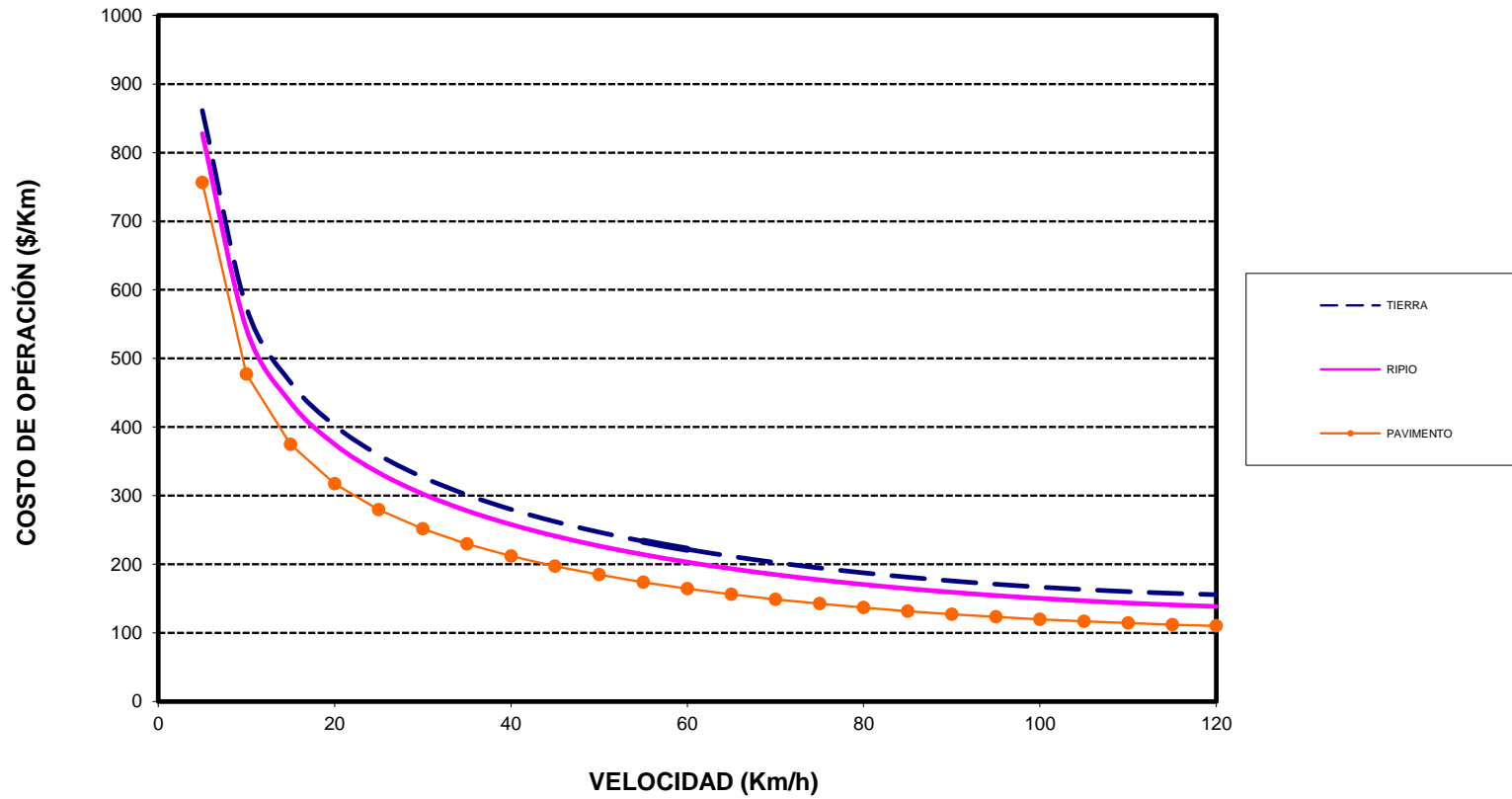


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **AUTO - CAMIONETA**

VELOCIDAD (Kmh)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Kmh)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	
5	132,82409	206,15087	338,97495	522,30000	861,27495	113,00714	192,40747	305,41462	522,30000	827,71462	89,79713	144,30561	234,10274	522,30000	756,40274	5
10	124,25203	188,97163	313,22365	261,15000	574,37365	105,60693	176,37352	281,98045	261,15000	543,13045	83,75429	132,28014	216,03443	261,15000	477,18443	10
15	116,64179	174,43535	291,07714	174,10000	465,17714	99,06009	162,80632	261,86642	174,10000	435,96642	78,38128	122,10474	200,48602	174,10000	374,58602	15
20	109,84019	161,97568	271,81587	130,57500	402,39087	93,22372	151,17730	244,40103	130,57500	374,97603	73,57087	113,38298	186,95385	130,57500	317,52885	20
25	103,73489	151,17730	254,91219	104,46000	359,37219	87,99304	141,09881	229,09186	104,46000	333,55186	69,24445	105,82411	175,06856	104,46000	279,52856	25
30	98,24163	141,72872	239,97035	87,05000	327,02035	83,28948	132,28014	215,56962	87,05000	302,61962	65,34301	99,21010	164,55311	87,05000	251,60311	30
35	93,29599	133,39174	226,68773	74,61429	301,30201	79,05298	124,49895	203,55193	74,61429	278,16622	61,82140	93,37422	155,19562	74,61429	229,80990	35
40	88,84786	125,98108	214,82895	65,28750	280,11645	75,23685	117,58235	192,81920	65,28750	258,10670	58,64446	88,18676	146,83122	65,28750	212,11872	40
45	84,85769	119,35050	204,20819	58,03333	262,24153	71,80427	111,39380	183,19807	58,03333	241,23140	55,78437	83,54535	139,32972	58,03333	197,36305	45
50	81,29383	113,38298	194,67680	52,23000	246,90680	68,72577	105,82411	174,54988	52,23000	226,77988	53,21880	79,36808	132,58688	52,23000	184,81688	50
55	78,13065	107,98379	186,11444	47,48182	233,59625	65,97756	100,78487	166,76243	47,48182	214,24425	50,92961	75,58865	126,51826	47,48182	174,00008	55
60	75,34720	103,07543	178,42264	43,52500	221,94764	63,54017	96,20374	159,74391	43,52500	203,26891	48,90184	72,15280	121,05464	43,52500	164,57964	60
65	72,92618	98,59389	171,52007	40,17692	211,69699	61,39757	92,02097	153,41853	40,17692	193,59546	47,12303	69,01572	116,13875	40,17692	156,31568	65
70	70,85314	94,48581	165,33895	37,30714	202,64610	59,53640	88,18676	147,72315	37,30714	185,03030	45,58266	66,14007	111,72273	37,30714	149,02988	70
75	69,11598	90,70638	159,82236	34,82000	194,64236	57,94548	84,65929	142,60477	34,82000	177,42477	44,27178	63,49447	107,76625	34,82000	142,58625	75
80	67,70444	87,21767	154,92211	32,64375	187,56586	56,61539	81,40316	138,01856	32,64375	170,66231	43,18264	61,05237	104,23501	32,64375	136,87876	80
85	66,60978	83,98739	150,59717	30,72353	181,32070	55,53814	78,38823	133,92637	30,72353	164,64990	42,30849	58,79117	101,09967	30,72353	131,82320	85
90	65,82453	80,98784	146,81237	29,01667	175,82904	54,70689	75,58865	130,29554	29,01667	159,31221	41,64339	56,69149	98,33488	29,01667	127,35155	90
95	65,34224	78,19516	143,53739	27,48947	171,02687	54,11581	72,98215	127,09795	27,48947	154,58743	41,18204	54,73661	95,91865	27,48947	123,40813	95
100	65,15730	75,58865	140,74595	26,11500	166,86095	53,75987	70,54941	124,30928	26,11500	150,42428	40,91969	52,91206	93,83175	26,11500	119,94675	100
105	65,26486	73,15031	138,41517	24,87143	163,28660	53,63474	68,27362	121,90836	24,87143	146,77979	40,85204	51,20522	92,05725	24,87143	116,92868	105
110	65,66065	70,86436	136,52501	23,74091	160,26592	53,73667	66,14007	119,87674	23,74091	143,61765	40,97519	49,60505	90,58024	23,74091	114,32115	110
115	66,34094	68,71696	135,05789	22,70870	157,76659	54,06242	64,13582	118,19825	22,70870	140,90694	41,28559	48,10187	89,38746	22,70870	112,09616	115
120	67,30241	66,69587	133,99828	21,76250	155,76078	54,60919	62,24948	116,85866	21,76250	138,62116	41,78002	46,68711	88,46713	21,76250	110,22963	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DEL USUARIO**
VEHÍCULO: **AUTO - CAMIONETA**



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **AUTO - CAMIONETA**
 SUPERFICIE DE RODAMIENTO: **TIERRA**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	7.700	32,51472	11,67211	3,59188	0,57840	7,04629	53,50231	42,54734	74,34820	23,92883	249,73007	522,30000
10	8.400	30,41621	10,76342	3,61002	0,57840	7,18479	49,04378	39,00173	68,15252	21,93476	230,68564	261,15000
15	9.100	28,44315	9,90779	3,62835	0,57840	7,32329	45,27118	36,00159	62,91001	20,24747	214,31124	174,10000
20	9.800	26,59552	9,10521	3,64686	0,57840	7,46180	42,03753	33,43005	58,41644	18,80122	200,07303	130,57500
25	10.500	24,87334	8,35567	3,66556	0,57840	7,60030	39,23502	31,20138	54,52201	17,54781	187,57950	104,46000
30	11.200	23,27660	7,65918	3,68446	0,57840	7,73880	36,78284	29,25129	51,11439	16,45107	176,53703	87,05000
35	11.900	21,80530	7,01574	3,70355	0,57840	7,87730	34,61914	27,53063	48,10766	15,48336	166,72108	74,61429
40	12.600	20,45944	6,42534	3,72284	0,57840	8,01581	32,69585	26,00115	45,43501	14,62317	157,95702	65,28750
45	13.300	19,23902	5,88800	3,74233	0,57840	8,15431	30,97502	24,63267	43,04369	13,85353	150,10698	58,03333
50	14.000	18,14404	5,40370	3,76203	0,57840	8,29281	29,42627	23,40104	40,89151	13,16086	143,06066	52,23000
55	14.700	17,17451	4,97246	3,78193	0,57840	8,43132	28,02502	22,28670	38,94429	12,53415	136,72877	47,48182
60	15.400	16,33041	4,59426	3,80205	0,57840	8,56982	26,75115	21,27367	37,17410	11,96442	131,03827	43,52500
65	16.100	15,61176	4,26910	3,82238	0,57840	8,70832	25,58806	20,34873	35,55783	11,44422	125,92880	40,17692
70	16.800	15,01854	3,99700	3,84293	0,57840	8,84682	24,52189	19,50086	34,07626	10,96738	121,35009	37,30714
75	17.500	14,55077	3,77795	3,86370	0,57840	8,98533	23,54101	18,72083	32,71321	10,52869	117,25988	34,82000
80	18.200	14,20843	3,61194	3,88470	0,57840	9,12383	22,63559	18,00080	31,45501	10,12374	113,62243	32,64375
85	18.900	13,99154	3,49898	3,90593	0,57840	9,26233	21,79724	17,33410	30,29001	9,74878	110,40731	30,72353
90	19.600	13,90009	3,43907	3,92739	0,57840	9,40084	21,01876	16,71503	29,20822	9,40061	107,58841	29,01667
95	20.300	13,93408	3,43221	3,94909	0,57840	9,53934	20,29398	16,13865	28,20104	9,07645	105,14323	27,48947
100	21.000	14,09351	3,47839	3,97103	0,57840	9,67784	19,61751	15,60069	27,26101	8,77390	103,05229	26,11500
105	21.700	14,37838	3,57763	3,99321	0,57840	9,81634	18,98469	15,09744	26,38162	8,49088	101,29859	24,87143
110	22.400	14,78869	3,72991	4,01565	0,57840	9,95485	18,39142	14,62565	25,55719	8,22554	99,86729	23,74091
115	23.100	15,32444	3,93524	4,03833	0,57840	10,09335	17,83410	14,18245	24,78273	7,97628	98,74533	22,70870
120	23.800	15,98564	4,19362	4,06128	0,57840	10,23185	17,30957	13,76531	24,05383	7,74168	97,92118	21,76250

COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **AUTO - CAMIONETA**
 SUPERFICIE DE RODAMIENTO: **RIPIO**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	8.250	26,97431	10,35809	2,34705	0,48200	3,83480	49,93549	39,71085	69,39165	22,33358	225,36781	522,30000
10	9.000	25,33762	9,53330	2,38262	0,48200	4,01942	45,77420	36,40161	63,60901	20,47244	208,01221	261,15000
15	9.750	23,79036	8,75346	2,41927	0,48200	4,20404	42,25310	33,60149	58,71601	18,89764	193,11738	174,10000
20	10.500	22,33254	8,01857	2,45707	0,48200	4,38866	39,23502	31,20138	54,52201	17,54781	180,18508	130,57500
25	11.250	20,96416	7,32863	2,49607	0,48200	4,57329	36,61936	29,12129	50,88721	16,37796	168,84997	104,46000
30	12.000	19,68523	6,68365	2,53633	0,48200	4,75791	34,33065	27,30121	47,70676	15,35433	158,83807	87,05000
35	12.750	18,49573	6,08361	2,57791	0,48200	4,94253	32,31120	25,69525	44,90048	14,45114	149,93986	74,61429
40	13.500	17,39567	5,52853	2,62088	0,48200	5,12716	30,51613	24,26774	42,40601	13,64830	141,99241	65,28750
45	14.250	16,38504	5,01840	2,66530	0,48200	5,31178	28,91002	22,99049	40,17411	12,92996	134,86711	58,03333
50	15.000	15,46386	4,55322	2,71125	0,48200	5,49640	27,46452	21,84097	38,16541	12,28347	128,46110	52,23000
55	15.750	14,63212	4,13300	2,75882	0,48200	5,68102	26,15668	20,80092	36,34801	11,69854	122,69111	47,48182
60	16.500	13,88982	3,75772	2,80808	0,48200	5,86565	24,96774	19,85542	34,69583	11,16679	117,48905	43,52500
65	17.250	13,23696	3,42739	2,85914	0,48200	6,05027	23,88219	18,99214	33,18731	10,68128	112,79868	40,17692
70	18.000	12,67353	3,14202	2,91209	0,48200	6,23489	22,88710	18,20081	31,80451	10,23622	108,57316	37,30714
75	18.750	12,19955	2,90160	2,96703	0,48200	6,41952	21,97161	17,47277	30,53233	9,82677	104,77318	34,82000
80	19.500	11,81500	2,70613	3,02409	0,48200	6,60414	21,12655	16,80074	29,35801	9,44882	101,36548	32,64375
85	20.250	11,51990	2,55561	3,08339	0,48200	6,78876	20,34409	16,17849	28,27067	9,09886	98,32177	30,72353
90	21.000	11,31423	2,45004	3,14505	0,48200	6,97338	19,61751	15,60069	27,26101	8,77390	95,61782	29,01667
95	21.750	11,19800	2,38943	3,20924	0,48200	7,15801	18,94105	15,06274	26,32097	8,47136	93,23278	27,48947
100	22.500	11,17121	2,37376	3,27610	0,48200	7,34263	18,30968	14,56064	25,44361	8,18898	91,14861	26,11500
105	23.250	11,23387	2,40305	3,34580	0,48200	7,52725	17,71904	14,09095	24,62284	7,92482	89,34962	24,87143
110	24.000	11,38596	2,47729	3,41854	0,48200	7,71187	17,16532	13,65060	23,85338	7,67717	87,82213	23,74091
115	24.750	11,62749	2,59648	3,49450	0,48200	7,89650	16,64516	13,23695	23,13055	7,44453	86,55416	22,70870
120	25.500	11,95846	2,76062	3,57392	0,48200	8,08112	16,15560	12,84763	22,45024	7,22557	85,53516	21,76250

COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **AUTO - CAMIONETA**
 SUPERFICIE DE RODAMIENTO: **PAVIMENTO**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	11.000	23,18561	9,23325	1,30933	0,36150	2,54500	37,45161	29,78314	52,04374	16,75018	172,66336	522,30000
10	12.000	21,70762	8,47298	1,35976	0,36150	2,69418	34,33065	27,30121	47,70676	15,35433	159,28899	261,15000
15	13.000	20,31058	7,75306	1,41225	0,36150	2,84335	31,68983	25,20112	44,03701	14,17323	147,78192	174,10000
20	14.000	18,99447	7,07351	1,46681	0,36150	2,99252	29,42627	23,40104	40,89151	13,16086	137,76848	130,57500
25	15.000	17,75930	6,43431	1,52345	0,36150	3,14170	27,46452	21,84097	38,16541	12,28347	128,97462	104,46000
30	16.000	16,60506	5,83548	1,58216	0,36150	3,29087	25,74798	20,47591	35,78007	11,51575	121,19478	87,05000
35	17.000	15,53177	5,27700	1,64289	0,36150	3,44005	24,23340	19,27144	33,67536	10,83835	114,27175	74,61429
40	18.000	14,53941	4,75888	1,70558	0,36150	3,58922	22,88710	18,20081	31,80451	10,23622	108,08321	65,28750
45	19.000	13,62798	4,28112	1,77012	0,36150	3,73839	21,68251	17,24287	30,13059	9,69747	102,53256	58,03333
50	20.000	12,79750	3,84371	1,83639	0,36150	3,88757	20,59839	16,38072	28,62406	9,21260	97,54244	52,23000
55	21.000	12,04795	3,44667	1,90422	0,36150	4,03674	19,61751	15,60069	27,26101	8,77390	93,05019	47,48182
60	22.000	11,37934	3,08998	1,97337	0,36150	4,18592	18,72581	14,89157	26,02187	8,37509	89,00445	43,52500
65	23.000	10,79167	2,77365	2,04359	0,36150	4,33509	17,91164	14,24411	24,89048	8,01096	85,36269	40,17692
70	24.000	10,28493	2,49768	2,11454	0,36150	4,48426	17,16532	13,65060	23,85338	7,67717	82,08940	37,30714
75	25.000	9,85914	2,26207	2,18585	0,36150	4,63344	16,47871	13,10458	22,89925	7,37008	79,15461	34,82000
80	26.000	9,51428	2,06682	2,25707	0,36150	4,78261	15,84491	12,60056	22,01851	7,08662	76,53287	32,64375
85	27.000	9,25035	1,91193	2,32770	0,36150	4,93179	15,25807	12,13387	21,20300	6,82415	74,20235	30,72353
90	28.000	9,06737	1,79739	2,39717	0,36150	5,08096	14,71313	11,70052	20,44575	6,58043	72,14423	29,01667
95	29.000	8,96532	1,72321	2,46488	0,36150	5,23013	14,20578	11,29705	19,74073	6,35352	70,34213	27,48947
100	30.000	8,94421	1,68940	2,53016	0,36150	5,37931	13,73226	10,92048	19,08270	6,14173	68,78176	26,11500
105	31.000	9,00404	1,69594	2,59231	0,36150	5,52848	13,28928	10,56821	18,46713	5,94361	67,45050	24,87143
110	32.000	9,14480	1,74283	2,65060	0,36150	5,67766	12,87399	10,23795	17,89004	5,75788	66,33725	23,74091
115	33.000	9,36650	1,83009	2,70430	0,36150	5,82683	12,48387	9,92771	17,34791	5,58339	65,43211	22,70870
120	34.000	9,66914	1,95771	2,75268	0,36150	5,97600	12,11670	9,63572	16,83768	5,41918	64,72630	21,76250

COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **AUTO - CAMIONETA**
 SUPERFICIE DE RODAMIENTO: **TIERRA**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	IMPUESTOS PATENTES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	7.700	46,82688	14,53110	4,52576	0,72000	10,45888	83,64221	65,86753	46,16883	35,84416	30,38961	338,97495	522,30000
10	8.400	43,80466	13,39984	4,54862	0,72000	10,66422	76,67202	60,37857	42,32143	32,85714	27,85714	313,22365	261,15000
15	9.100	40,96311	12,33463	4,57171	0,72000	10,86957	70,77418	55,73407	39,06593	30,32967	25,71429	291,07714	174,10000
20	9.800	38,30221	11,33546	4,59503	0,72000	11,07491	65,71888	51,75306	36,27551	28,16327	23,87755	271,81587	130,57500
25	10.500	35,82196	10,40233	4,61860	0,72000	11,28026	61,33762	48,30286	33,85714	26,28571	22,28571	254,91219	104,46000
30	11.200	33,52238	9,53524	4,64240	0,72000	11,48560	57,50402	45,28393	31,74107	24,64286	20,89286	239,97035	87,05000
35	11.900	31,40345	8,73419	4,66646	0,72000	11,69095	54,12143	42,62017	29,87395	23,19328	19,66387	226,68773	74,61429
40	12.600	29,46517	7,99918	4,69076	0,72000	11,89629	51,11468	40,25238	28,21429	21,90476	18,57143	214,82895	65,28750
45	13.300	27,70756	7,33022	4,71532	0,72000	12,10164	48,42444	38,13383	26,72932	20,75188	17,59398	204,20819	58,03333
50	14.000	26,13060	6,72730	4,74014	0,72000	12,30698	46,00321	36,22714	25,39286	19,71429	16,71429	194,67680	52,23000
55	14.700	24,73429	6,19042	4,76522	0,72000	12,51233	43,81259	34,50204	24,18367	18,77551	15,91837	186,11444	47,48182
60	15.400	23,51865	5,71958	4,79056	0,72000	12,71767	41,82110	32,93377	23,08442	17,92208	15,19481	178,42264	43,52500
65	16.100	22,48366	5,31479	4,81618	0,72000	12,92302	40,00280	31,50186	22,08075	17,14286	14,53416	171,52007	40,17692
70	16.800	21,62933	4,97604	4,84208	0,72000	13,12836	38,33601	30,18929	21,16071	16,42857	13,92857	165,33895	37,30714
75	17.500	20,95565	4,70333	4,86825	0,72000	13,33371	36,80257	28,98171	20,31429	15,77143	13,37143	159,82236	34,82000
80	18.200	20,46263	4,49666	4,89471	0,72000	13,53905	35,38709	27,86703	19,53297	15,16484	12,85714	154,92211	32,64375
85	18.900	20,15027	4,35603	4,92145	0,72000	13,74440	34,07646	26,83492	18,80952	14,60317	12,38095	150,59717	30,72353
90	19.600	20,01856	4,28144	4,94850	0,72000	13,94974	32,85944	25,87653	18,13776	14,08163	11,93878	146,81237	29,01667
95	20.300	20,06751	4,27290	4,97584	0,72000	14,15509	31,72635	24,98424	17,51232	13,59606	11,52709	143,53739	27,48947
100	21.000	20,29712	4,33040	5,00348	0,72000	14,36043	30,66881	24,15143	16,92857	13,14286	11,14286	140,74595	26,11500
105	21.700	20,70738	4,45394	5,03143	0,72000	14,56578	29,67949	23,37235	16,38249	12,71889	10,78341	138,41517	24,87143
110	22.400	21,29830	4,64352	5,05970	0,72000	14,77112	28,75201	22,64196	15,87054	12,32143	10,44643	136,52501	23,74091
115	23.100	22,06988	4,89915	5,08828	0,72000	14,97647	27,88074	21,95584	15,38961	11,94805	10,12987	135,05789	22,70870
120	23.800	23,02211	5,22082	5,11719	0,72000	15,18181	27,06071	21,31008	14,93697	11,59664	9,83193	133,99828	21,76250

COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**

VEHÍCULO: **AUTO - CAMIONETA**

SUPERFICIE DE RODAMIENTO: **RIPIO**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	IMPUESTOS PATENTES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	8.250	38,84773	12,89522	2,95728	0,60000	5,66287	78,06606	61,47636	43,09091	33,45455	28,36364	305,41462	522,30000
10	9.000	36,49060	11,86840	3,00209	0,60000	5,93880	71,56056	56,35333	39,50000	30,66667	26,00000	281,98045	261,15000
15	9.750	34,26228	10,89755	3,04827	0,60000	6,21473	66,05590	52,01846	36,46154	28,30769	24,00000	261,86642	174,10000
20	10.500	32,16277	9,98266	3,09590	0,60000	6,49065	61,33762	48,30286	33,85714	26,28571	22,28571	244,40103	130,57500
25	11.250	30,19206	9,12373	3,14504	0,60000	6,76658	57,24844	45,08267	31,60000	24,53333	20,80000	229,09186	104,46000
30	12.000	28,35017	8,32076	3,19577	0,60000	7,04251	53,67042	42,26500	29,62500	23,00000	19,50000	215,56962	87,05000
35	12.750	26,63708	7,57375	3,24816	0,60000	7,31843	50,51333	39,77882	27,88235	21,64706	18,35294	203,55193	74,61429
40	13.500	25,05280	6,88270	3,30230	0,60000	7,59436	47,70704	37,56889	26,33333	20,44444	17,33333	192,81920	65,28750
45	14.250	23,59733	6,24762	3,35827	0,60000	7,87029	45,19614	35,59158	24,94737	19,36842	16,42105	183,19807	58,03333
50	15.000	22,27067	5,66850	3,41617	0,60000	8,14621	42,93633	33,81200	23,70000	18,40000	15,60000	174,54988	52,23000
55	15.750	21,07281	5,14534	3,47610	0,60000	8,42214	40,89175	32,20190	22,57143	17,52381	14,85714	166,76243	47,48182
60	16.500	20,00377	4,67814	3,53817	0,60000	8,69807	39,03303	30,73818	21,54545	16,72727	14,18182	159,74391	43,52500
65	17.250	19,06353	4,26691	3,60250	0,60000	8,97400	37,33594	29,40174	20,60870	16,00000	13,56522	153,41853	40,17692
70	18.000	18,25210	3,91164	3,66922	0,60000	9,24992	35,78028	28,17667	19,75000	15,33333	13,00000	147,72315	37,30714
75	18.750	17,56948	3,61233	3,73845	0,60000	9,52585	34,34907	27,04960	18,96000	14,72000	12,48000	142,60477	34,82000
80	19.500	17,01567	3,36898	3,81034	0,60000	9,80178	33,02795	26,00923	18,23077	14,15385	12,00000	138,01856	32,64375
85	20.250	16,59066	3,18159	3,88505	0,60000	10,07770	31,80469	25,04593	17,55556	13,62963	11,55556	133,92637	30,72353
90	21.000	16,29447	3,05016	3,96276	0,60000	10,35363	30,66881	24,15143	16,92857	13,14286	11,14286	130,29554	29,01667
95	21.750	16,12708	2,97470	4,04363	0,60000	10,62956	29,61126	23,31862	16,34483	12,68966	10,75862	127,09795	27,48947
100	22.500	16,08850	2,95520	4,12787	0,60000	10,90548	28,62422	22,54133	15,80000	12,26667	10,40000	124,30928	26,11500
105	23.250	16,17873	2,99166	4,21570	0,60000	11,18141	27,70086	21,81419	15,29032	11,87097	10,06452	121,90836	24,87143
110	24.000	16,39777	3,08408	4,30734	0,60000	11,45734	26,83521	21,13250	14,81250	11,50000	9,75000	119,87674	23,74091
115	24.750	16,74561	3,23247	4,40306	0,60000	11,73327	26,02202	20,49212	14,36364	11,15152	9,45455	118,19825	22,70870
120	25.500	17,22227	3,43682	4,50313	0,60000	12,00919	25,25667	19,88941	13,94118	10,82353	9,17647	116,85866	21,76250



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **AUTO - CAMIONETA**
 SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	IMPUESTOS PATENTES (\$/Km)	SEGUROS (\$/Km)	GARAGE (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	11.000	33,39133	11,49486	1,64976	0,45000	3,77816	58,54955	46,10727	32,31818	25,09091	21,27273	234,10274	522,30000
10	12.000	31,26277	10,54837	1,71329	0,45000	3,99958	53,67042	42,26500	29,62500	23,00000	19,50000	216,03443	261,15000
15	13.000	29,25078	9,65212	1,77943	0,45000	4,22100	49,54192	39,01385	27,34615	21,23077	18,00000	200,48602	174,10000
20	14.000	27,35536	8,80611	1,84818	0,45000	4,44242	46,00321	36,22714	25,39286	19,71429	16,71429	186,95385	130,57500
25	15.000	25,57649	8,01035	1,91955	0,45000	4,66384	42,93633	33,81200	23,70000	18,40000	15,60000	175,06856	104,46000
30	16.000	23,91419	7,26483	1,99351	0,45000	4,88526	40,25281	31,69875	22,21875	17,25000	14,62500	164,55311	87,05000
35	17.000	22,36846	6,56956	2,07003	0,45000	5,10668	37,88500	29,83412	20,91176	16,23529	13,76471	155,19562	74,61429
40	18.000	20,93929	5,92453	2,14902	0,45000	5,32810	35,78028	28,17667	19,75000	15,33333	13,00000	146,83122	65,28750
45	19.000	19,62668	5,32974	2,23035	0,45000	5,54953	33,89711	26,69368	18,71053	14,52632	12,31579	139,32972	58,03333
50	20.000	18,43064	4,78520	2,31385	0,45000	5,77095	32,20225	25,35900	17,77500	13,80000	11,70000	132,58688	52,23000
55	21.000	17,35116	4,29090	2,39931	0,45000	5,99237	30,66881	24,15143	16,92857	13,14286	11,14286	126,51826	47,48182
60	22.000	16,38824	3,84685	2,48644	0,45000	6,21379	29,27477	23,05364	16,15909	12,54545	10,63636	121,05464	43,52500
65	23.000	15,54189	3,45304	2,57492	0,45000	6,43521	28,00196	22,05130	15,45652	12,00000	10,17391	116,13875	40,17692
70	24.000	14,81210	3,10947	2,66432	0,45000	6,65663	26,83521	21,13250	14,81250	11,50000	9,75000	111,72273	37,30714
75	25.000	14,19888	2,81615	2,75416	0,45000	6,87805	25,76180	20,28720	14,22000	11,04000	9,36000	107,76625	34,82000
80	26.000	13,70222	2,57307	2,84390	0,45000	7,09947	24,77096	19,50692	13,67308	10,61538	9,00000	104,23501	32,64375
85	27.000	13,32213	2,38024	2,93289	0,45000	7,32090	23,85352	18,78444	13,16667	10,22222	8,66667	101,09967	30,72353
90	28.000	13,05860	2,23765	3,02043	0,45000	7,54232	23,00161	18,11357	12,69643	9,85714	8,35714	98,33488	29,01667
95	29.000	12,91163	2,14530	3,10574	0,45000	7,76374	22,20845	17,48897	12,25862	9,51724	8,06897	95,91865	27,48947
100	30.000	12,88122	2,10320	3,18800	0,45000	7,98516	21,46817	16,90600	11,85000	9,20000	7,80000	93,83175	26,11500
105	31.000	12,96739	2,11134	3,26630	0,45000	8,20658	20,77565	16,36065	11,46774	8,90323	7,54839	92,05725	24,87143
110	32.000	13,17011	2,16973	3,33975	0,45000	8,42800	20,12641	15,84938	11,10938	8,62500	7,31250	90,58024	23,74091
115	33.000	13,48940	2,27836	3,40740	0,45000	8,64942	19,51652	15,36909	10,77273	8,36364	7,09091	89,38746	22,70870
120	34.000	13,92525	2,43723	3,46836	0,45000	8,87084	18,94250	14,91706	10,45588	8,11765	6,88235	88,46713	21,76250



PLANILLA DE CONSUMOS

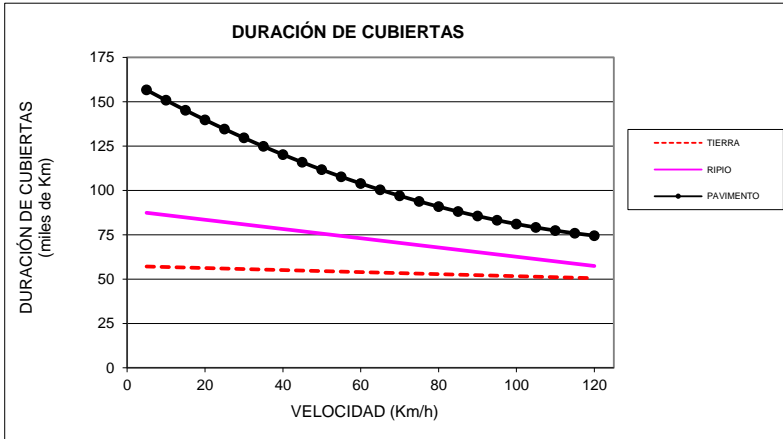
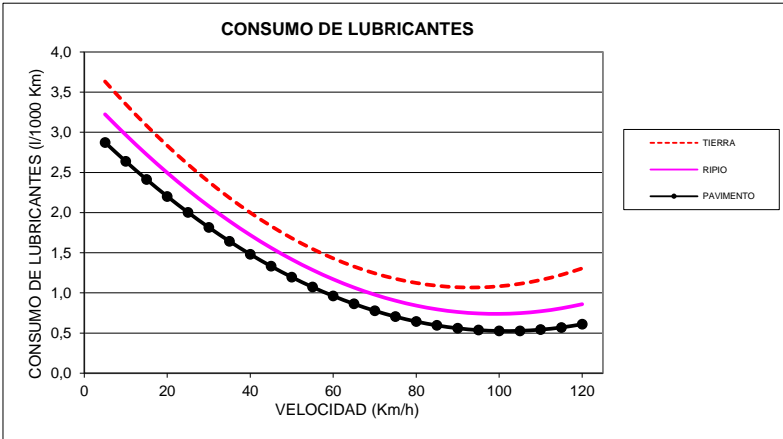
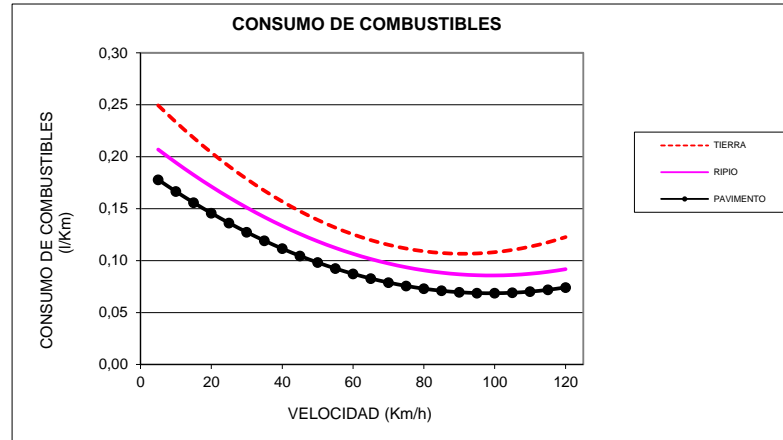
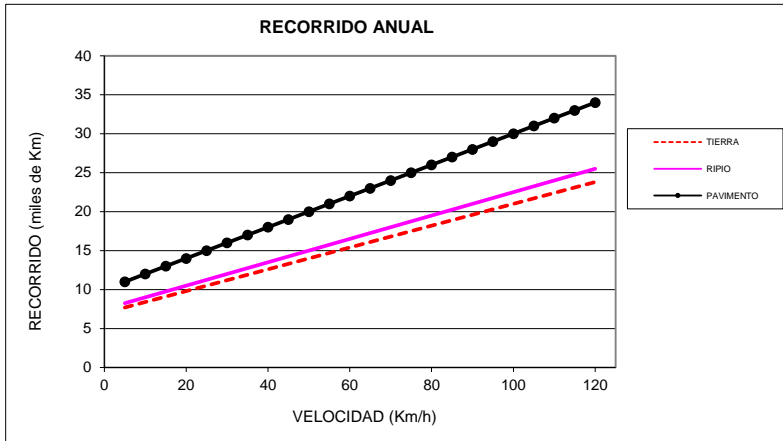
VEHÍCULO: AUTO - CAMIONETA

VELOCIDAD (Km/h)	RECORRIDO ANUAL (Km)			CONSUMO DE COMBUSTIBLES (l/Km)			CONSUMO DE LUBRICANTES (l/1000 Km)			DURACIÓN DE CUBIERTAS (Km)			VELOCIDAD (Km/h)
	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	
5	7.700	8.250	11.000	0,24938	0,20689	0,17783	3,63278	3,22381	2,87372	57.095	87.378	156.629	5
10	8.400	9.000	12.000	0,23329	0,19434	0,16650	3,34996	2,96710	2,63709	56.808	86.073	150.821	10
15	9.100	9.750	13.000	0,21816	0,18247	0,15578	3,08366	2,72439	2,41303	56.522	84.769	145.215	15
20	9.800	10.500	14.000	0,20398	0,17129	0,14569	2,83386	2,49566	2,20153	56.235	83.465	139.814	20
25	10.500	11.250	15.000	0,19078	0,16079	0,13621	2,60058	2,28093	2,00259	55.948	82.161	134.615	25
30	11.200	12.000	16.000	0,17853	0,15098	0,12736	2,38381	2,08019	1,81621	55.661	80.857	129.620	30
35	11.900	12.750	17.000	0,16724	0,14186	0,11913	2,18355	1,89344	1,64239	55.374	79.553	124.829	35
40	12.600	13.500	18.000	0,15692	0,13342	0,11152	1,99980	1,72068	1,48113	55.087	78.249	120.241	40
45	13.300	14.250	19.000	0,14756	0,12567	0,10453	1,83256	1,56191	1,33244	54.800	76.944	115.856	45
50	14.000	15.000	20.000	0,13916	0,11861	0,09816	1,68183	1,41713	1,19630	54.513	75.640	111.675	50
55	14.700	15.750	21.000	0,13173	0,11223	0,09241	1,54761	1,28634	1,07273	54.226	74.336	107.698	55
60	15.400	16.500	22.000	0,12525	0,10653	0,08728	1,42990	1,16954	0,96171	53.939	73.032	103.924	60
65	16.100	17.250	23.000	0,11974	0,10153	0,08277	1,32870	1,06673	0,86326	53.652	71.728	100.353	65
70	16.800	18.000	24.000	0,11519	0,09720	0,07888	1,24401	0,97791	0,77737	53.366	70.424	96.985	70
75	17.500	18.750	25.000	0,11160	0,09357	0,07562	1,17583	0,90308	0,70404	53.079	69.120	93.822	75
80	18.200	19.500	26.000	0,10898	0,09062	0,07297	1,12416	0,84224	0,64327	52.792	67.815	90.861	80
85	18.900	20.250	27.000	0,10731	0,08836	0,07095	1,08901	0,79540	0,59506	52.505	66.511	88.104	85
90	19.600	21.000	28.000	0,10661	0,08678	0,06955	1,07036	0,76254	0,55941	52.218	65.207	85.551	90
95	20.300	21.750	29.000	0,10687	0,08589	0,06876	1,06823	0,74368	0,53633	51.931	63.903	83.201	95
100	21.000	22.500	30.000	0,10810	0,08568	0,06860	1,08260	0,73880	0,52580	51.644	62.599	81.054	100
105	21.700	23.250	31.000	0,11028	0,08616	0,06906	1,11349	0,74792	0,52784	51.357	61.295	79.111	105
110	22.400	24.000	32.000	0,11343	0,08733	0,07014	1,16088	0,77102	0,54243	51.070	59.991	77.371	110
115	23.100	24.750	33.000	0,11754	0,08918	0,07184	1,22479	0,80812	0,56959	50.783	58.686	75.835	115
120	23.800	25.500	34.000	0,12261	0,09172	0,07416	1,30520	0,85920	0,60931	50.496	57.382	74.502	120



GRÁFICOS DE CONSUMOS

VEHÍCULO: AUTO - CAMIONETA





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **AUTO - CAMIONETA**

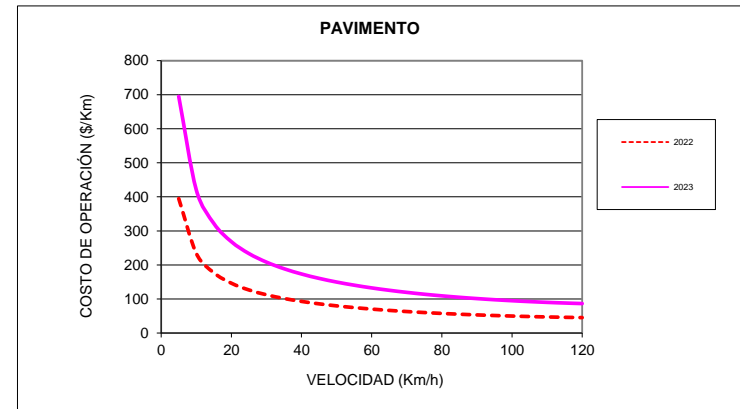
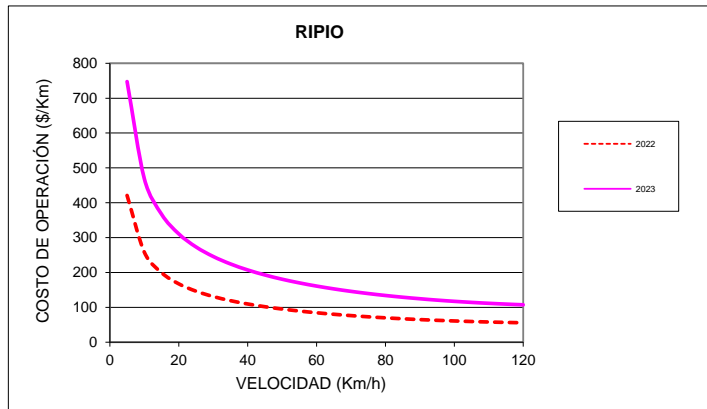
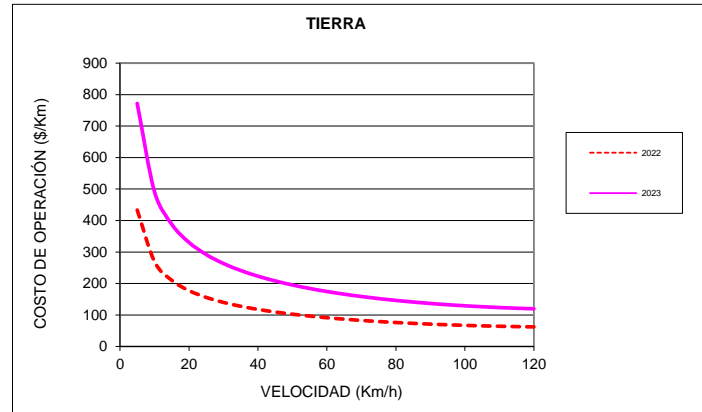
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	433,38933	772,03007	338,64074	0,78138	78,14	420,98297	747,66781	326,68484	0,77600	77,60	394,81966	694,96336	300,14370	0,76020	76,02	5
10	269,92829	491,83564	221,90735	0,82210	82,21	258,39426	469,16221	210,76796	0,81568	81,57	234,19836	420,43899	186,24063	0,79523	79,52	10
15	210,38859	388,41124	178,02266	0,84616	84,62	199,62068	367,21738	167,59670	0,83958	83,96	177,10057	321,88192	144,78135	0,81751	81,75	15
20	177,55878	330,64803	153,08925	0,86219	86,22	167,46824	310,76008	143,29184	0,85564	85,56	146,39329	268,34348	121,95020	0,83303	83,30	20
25	155,85714	292,03950	136,18236	0,87376	87,38	146,36801	273,30997	126,94196	0,86728	86,73	126,55230	233,43462	106,88232	0,84457	84,46	25
30	140,00987	263,58703	123,57715	0,88263	88,26	131,05582	245,88807	114,83225	0,87621	87,62	112,34695	208,24478	95,89783	0,85359	85,36	30
35	127,70845	241,33537	113,62692	0,88974	88,97	119,23049	224,55414	105,32365	0,88336	88,34	101,50167	188,88604	87,38436	0,86092	86,09	35
40	117,76805	223,24452	105,47647	0,89563	89,56	109,71294	207,27991	97,56697	0,88929	88,93	92,85728	173,37071	80,51343	0,86707	86,71	40
45	109,51046	208,14031	98,62985	0,90064	90,06	101,82947	192,90045	91,07097	0,89435	89,43	85,75575	160,56589	74,81014	0,87236	87,24	45
50	102,51521	195,29066	92,77544	0,90499	90,50	95,16328	180,69110	85,52782	0,89875	89,87	79,79278	149,77244	69,97967	0,87702	87,70	50
55	96,50542	184,21059	87,70517	0,90881	90,88	89,44039	170,17293	80,73253	0,90264	90,26	74,70449	140,53201	65,82752	0,88117	88,12	55
60	91,28984	174,56327	83,27343	0,91219	91,22	84,47202	161,01405	76,54203	0,90612	90,61	70,31030	132,52945	62,21915	0,88492	88,49	60
65	86,73130	166,10573	79,37443	0,91518	91,52	80,12300	152,97560	72,85261	0,90926	90,93	66,48175	125,53962	59,05786	0,88833	88,83	65
70	82,72830	158,65723	75,92893	0,91781	91,78	76,29350	145,88031	69,58681	0,91209	91,21	63,12460	119,39654	56,27195	0,89144	89,14	70
75	79,20378	152,07988	72,87610	0,92011	92,01	72,90790	139,59318	66,68528	0,91465	91,47	60,16779	113,97461	53,80682	0,89428	89,43	75
80	76,09796	146,26618	70,16823	0,92208	92,21	69,90764	134,00923	64,10159	0,91695	91,69	57,55660	109,17662	51,62002	0,89686	89,69	80
85	73,36358	141,13084	67,76726	0,92372	92,37	67,24651	129,04530	61,79879	0,91899	91,90	55,24802	104,92588	49,67786	0,89918	89,92	85
90	70,96274	136,60507	65,64234	0,92503	92,50	64,88751	124,63449	59,74698	0,92078	92,08	53,20769	101,16089	47,95320	0,90125	90,12	90
95	68,86455	132,63271	63,76816	0,92599	92,60	62,80057	120,72226	57,92169	0,92231	92,23	51,40777	97,83161	46,42383	0,90305	90,31	95
100	67,04358	129,16729	62,12370	0,92662	92,66	60,96096	117,26361	56,30265	0,92359	92,36	49,82538	94,89676	45,07138	0,90459	90,46	100
105	65,47867	126,17002	60,69135	0,92689	92,69	59,34814	114,22105	54,87291	0,92459	92,46	48,44151	92,32193	43,88042	0,90584	90,58	105
110	64,15202	123,60820	59,45618	0,92680	92,68	57,94489	111,56304	53,61815	0,92533	92,53	47,24021	90,07815	42,83794	0,90681	90,68	110
115	63,04854	121,45402	58,40548	0,92636	92,64	56,73664	109,26285	52,52621	0,92579	92,58	46,20798	88,14080	41,93283	0,90748	90,75	115
120	62,15535	119,68368	57,52833	0,92556	92,56	55,71099	107,29766	51,58667	0,92597	92,60	45,33328	86,48880	41,15552	0,90784	90,78	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: DE LA COMUNIDAD

VEHÍCULO: AUTO - CAMIONETA





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **AUTO - CAMIONETA**

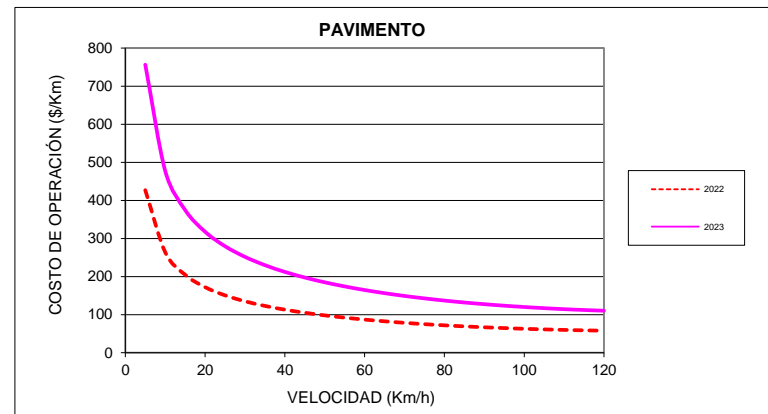
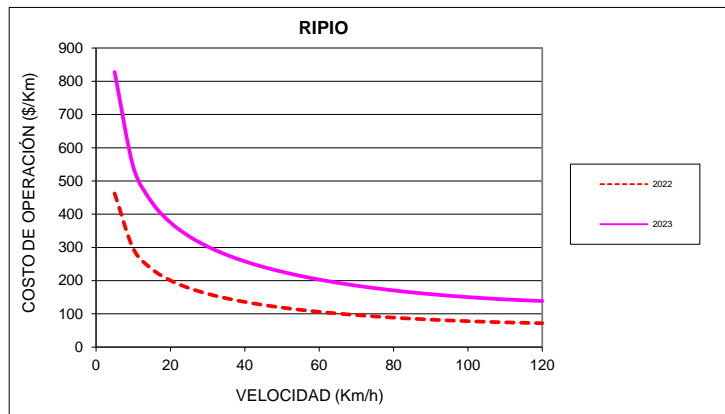
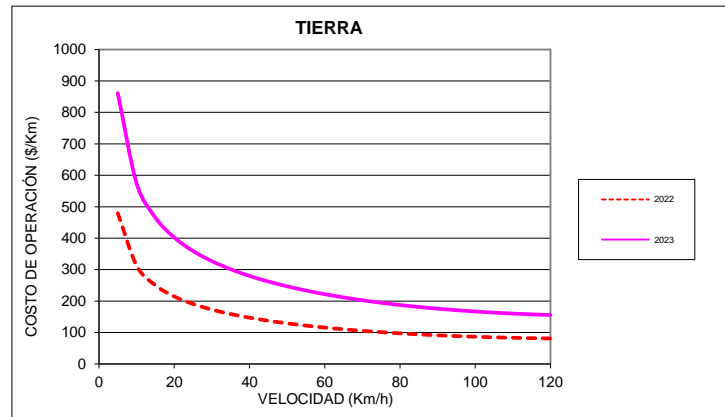
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	479,71095	861,27495	381,56400	0,79540	79,54	462,32616	827,71462	365,38845	0,79033	79,03	426,82252	756,40274	329,58022	0,77217	77,22	5
10	312,79890	574,37365	261,57475	0,83624	83,62	296,63618	543,13045	246,49427	0,83096	83,10	263,78318	477,18443	213,40125	0,80900	80,90	10
15	250,27127	465,17714	214,90587	0,85869	85,87	235,18439	435,96642	200,78202	0,85372	85,37	204,59000	374,58602	169,99602	0,83091	83,09	15
20	214,82727	402,39087	187,56360	0,87309	87,31	200,69344	374,97603	174,28259	0,86840	86,84	172,04745	317,52885	145,48140	0,84559	84,56	20
25	190,81966	359,37219	168,55253	0,88331	88,33	177,53324	333,55186	156,01861	0,87881	87,88	150,58544	279,52856	128,94312	0,85628	85,63	25
30	172,92550	327,02035	154,09485	0,89111	89,11	160,39378	302,61962	142,22583	0,88673	88,67	134,93892	251,60311	116,66420	0,86457	86,46	30
35	158,79870	301,30201	142,50332	0,89738	89,74	146,93881	278,16622	131,22741	0,89308	89,31	122,80601	229,80990	107,00389	0,87132	87,13	35
40	147,22520	280,11645	132,89125	0,90264	90,26	135,96198	258,10670	122,14472	0,89837	89,84	113,00707	212,11872	99,11165	0,87704	87,70	40
45	137,50372	262,24153	124,73781	0,90716	90,72	126,76806	241,23140	114,46334	0,90294	90,29	104,86790	197,36305	92,49515	0,88202	88,20	45
50	129,19534	246,90680	117,71146	0,91111	91,11	118,92304	226,77988	107,85684	0,90695	90,69	97,97128	184,81688	86,84560	0,88644	88,64	50
55	122,00822	233,59625	111,58804	0,91459	91,46	112,13901	214,24425	102,10524	0,91052	91,05	92,04284	174,00008	81,95724	0,89042	89,04	55
60	115,73890	221,94764	106,20874	0,91766	91,77	106,21576	203,26891	97,05315	0,91374	91,37	86,89340	164,57964	77,68624	0,89404	89,40	60
65	110,24011	211,69699	101,45689	0,92033	92,03	101,00873	193,59546	92,58672	0,91662	91,66	82,38743	156,31568	73,92825	0,89732	89,73	65
70	105,40192	202,64610	97,24417	0,92260	92,26	96,41025	185,03030	88,62005	0,91920	91,92	78,42472	149,02988	70,60515	0,90029	90,03	70
75	101,14022	194,64236	93,50214	0,92448	92,45	92,33811	177,42477	85,08666	0,92147	92,15	74,92925	142,58625	67,65699	0,90294	90,29	75
80	97,38924	187,56586	90,17662	0,92594	92,59	88,72816	170,66231	81,93415	0,92343	92,34	71,84205	136,87876	65,03672	0,90527	90,53	80
85	94,09663	181,32070	87,22407	0,92696	92,70	85,52948	164,64990	79,12042	0,92507	92,51	69,11647	131,82320	62,70673	0,90726	90,73	85
90	91,22010	175,82904	84,60894	0,92753	92,75	82,70099	159,31221	76,61122	0,92636	92,64	66,71503	127,35155	60,63652	0,90889	90,89	90
95	88,72503	171,02687	82,30184	0,92761	92,76	80,20913	154,58743	74,37830	0,92730	92,73	64,60719	123,40813	58,80094	0,91013	91,01	95
100	86,58271	166,86095	80,27825	0,92719	92,72	78,02614	150,42428	72,39814	0,92787	92,79	62,76769	119,94675	57,17906	0,91096	91,10	100
105	84,76912	163,28660	78,51747	0,92625	92,63	76,12885	146,77979	70,65094	0,92804	92,80	61,17545	116,92868	55,75323	0,91137	91,14	105
110	83,26400	160,26592	77,00192	0,92479	92,48	74,49775	143,61765	69,11990	0,92781	92,78	59,81271	114,32115	54,50844	0,91132	91,13	110
115	82,05007	157,76659	75,71652	0,92281	92,28	73,11624	140,90694	67,79071	0,92716	92,72	58,66432	112,09616	53,43184	0,91081	91,08	115
120	81,11252	155,76078	74,64826	0,92031	92,03	71,97014	138,62116	66,65102	0,92609	92,61	57,71733	110,22963	52,51230	0,90982	90,98	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN : DEL USUARIO

VEHÍCULO: AUTO - CAMIONETA



CAPÍTULO 3

ÓMNIBUS



Vialidad Nacional

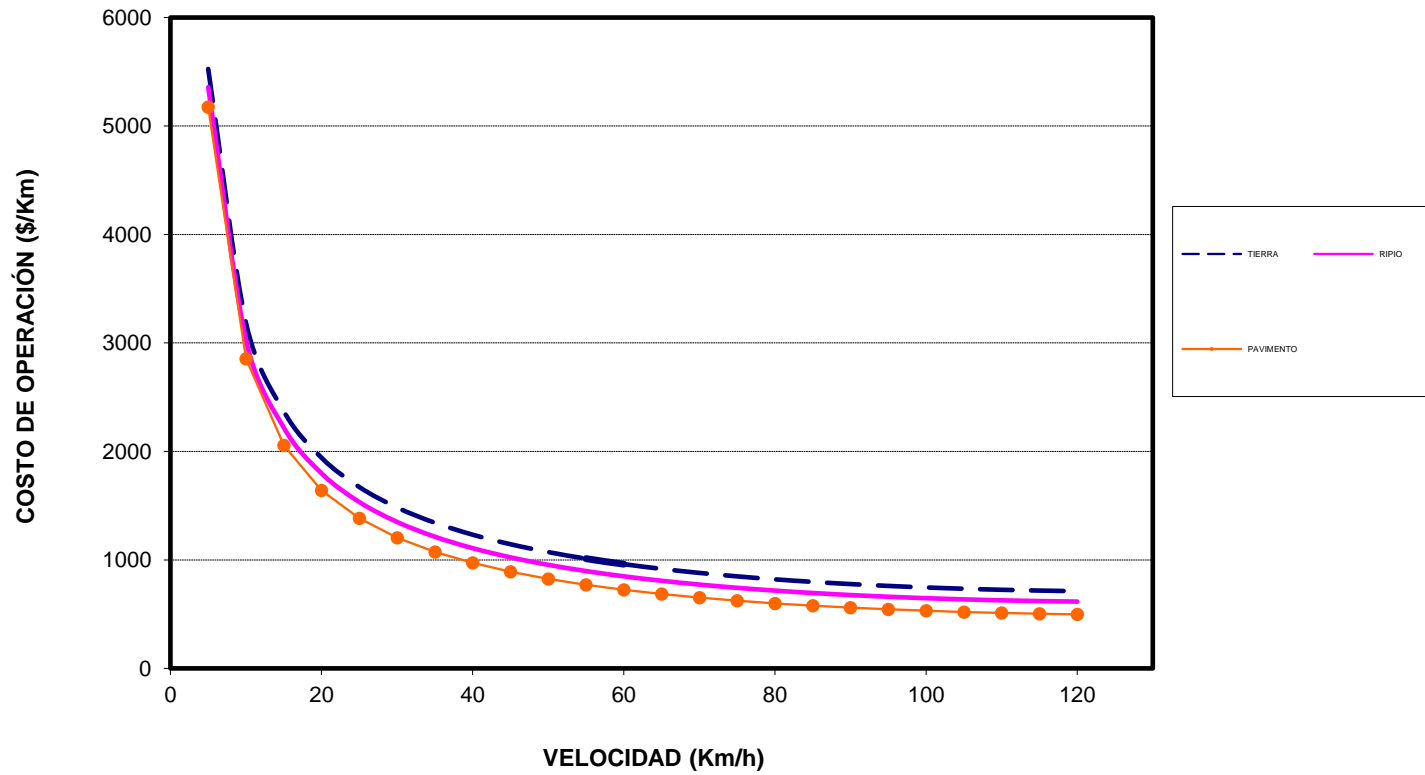


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHICULO: **OMNIBUS**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO VEHICULO RECORRIDO (A)	COSTO VEHICULO TIEMPO (B)	COSTO TOTAL VEHICULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHICULO RECORRIDO (A)	COSTO VEHICULO TIEMPO (B)	COSTO TOTAL VEHICULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHICULO RECORRIDO (A)	COSTO VEHICULO TIEMPO (B)	COSTO TOTAL VEHICULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	
5	387,75101	594,27138	982,02239	4544,00000	5526,02239	299,47861	515,21104	814,68965	4544,00000	5358,68965	221,10090	409,95099	631,05189	4544,00000	5175,05189	5
10	368,99797	544,48975	913,48772	2272,00000	3185,48772	283,45298	471,69810	755,15108	2272,00000	3027,15108	207,19453	375,01034	582,20487	2272,00000	2854,20487	10
15	352,83981	502,61005	855,44986	1514,66667	2370,11653	269,70820	435,10060	704,80880	1514,66667	2219,47546	195,18084	345,61019	540,79103	1514,66667	2055,45770	15
20	338,85675	466,89809	805,75483	1136,00000	1941,75483	257,87731	403,90114	661,77845	1136,00000	1797,77845	184,76649	320,53667	505,30316	1136,00000	1641,30316	20
25	326,74463	436,09728	762,84191	908,80000	1671,64191	247,69452	377,00028	624,69480	908,80000	1533,49480	175,73893	298,91022	474,64916	908,80000	1383,44916	25
30	316,27768	409,27485	725,55253	757,33333	1482,88587	238,96266	353,58186	592,54452	757,33333	1349,87785	167,94034	280,07791	448,01825	757,33333	1205,35158	30
35	307,28481	385,72380	693,00861	649,14286	1342,15146	231,53242	333,02731	564,55972	649,14286	1213,70258	161,25087	263,54484	424,79571	649,14286	1073,93856	35
40	299,63397	364,89852	664,53249	568,00000	1232,53249	225,28867	314,85928	540,14795	568,00000	1108,14795	155,57777	248,92904	404,50681	568,00000	972,50681	40
45	293,22166	346,37122	639,59288	504,88889	1144,48177	220,14130	298,70350	518,84481	504,88889	1023,73369	150,84786	235,93098	386,77884	504,88889	891,66773	45
50	287,96558	329,80177	617,76735	454,40000	1072,16735	216,01879	284,26242	500,28121	454,40000	954,68121	147,00239	224,31242	371,31481	454,40000	825,71481	50
55	283,79950	314,91631	598,71580	413,09091	1011,80671	212,86368	271,29646	484,16015	413,09091	897,25106	143,99331	213,88145	357,87476	413,09091	770,96567	55
60	280,66948	301,49188	582,16136	378,66667	960,82803	210,62935	259,61062	470,23997	378,66667	848,90664	141,78057	204,48175	346,26232	378,66667	724,92899	60
65	278,53120	289,34514	567,87634	349,53846	917,41480	209,27758	249,04453	458,32210	349,53846	807,86056	140,33014	195,98459	336,31473	349,53846	685,85319	65
70	277,34787	278,32389	555,67176	324,57143	880,24319	208,77681	239,46509	448,24190	324,57143	772,81333	139,61249	188,28300	327,89549	324,57143	652,46692	70
75	277,08873	268,30078	545,38951	302,93333	848,32284	209,10080	230,76096	439,86176	302,93333	742,79509	139,60148	181,28727	320,88875	302,93333	623,82208	75
80	277,72783	259,16842	536,89625	284,00000	820,89625	210,22756	222,83825	433,06581	284,00000	717,06581	140,27345	174,92157	315,19502	284,00000	599,19502	80
85	279,24315	250,83560	530,07875	267,29412	797,37287	212,13860	215,61725	427,75585	267,29412	695,04997	141,60665	169,12129	310,72794	267,29412	578,02206	85
90	281,61589	243,22439	524,84028	252,44444	777,28472	214,81831	209,02987	423,84818	252,44444	676,29262	143,58075	163,83103	307,41177	252,44444	559,85622	90
95	284,82989	236,26776	521,09766	239,15789	760,25555	218,25343	203,01757	421,27100	239,15789	660,42889	146,17658	159,00291	305,17949	239,15789	544,33739	95
100	288,87120	229,90780	518,77900	227,20000	745,97900	222,43272	197,52978	419,96250	227,20000	647,16250	149,37603	154,59540	303,97143	227,20000	531,17143	100
105	293,72769	224,09415	517,82184	216,38095	734,20280	227,34662	192,52257	419,86919	216,38095	636,25015	153,16202	150,57222	303,73424	216,38095	520,11519	105
110	299,38880	218,78288	518,17167	206,54545	724,71713	232,98701	187,95763	420,94464	206,54545	627,49010	157,51863	146,90159	304,42022	206,54545	510,96567	110
115	305,84526	213,93543	519,78069	197,56522	717,34591	239,34699	183,80138	423,14838	197,56522	620,71360	162,43134	143,55556	305,98689	197,56522	503,55211	115
120	313,08895	209,51786	522,60681	189,33333	711,94014	246,42077	180,02428	426,44505	189,33333	615,77839	167,88725	140,50950	308,39675	189,33333	497,73009	120



**GRÁFICO RESUMEN
DE LA COMUNIDAD**
VEHÍCULO: **ÓMNIBUS**





PLANILLA RESUMEN

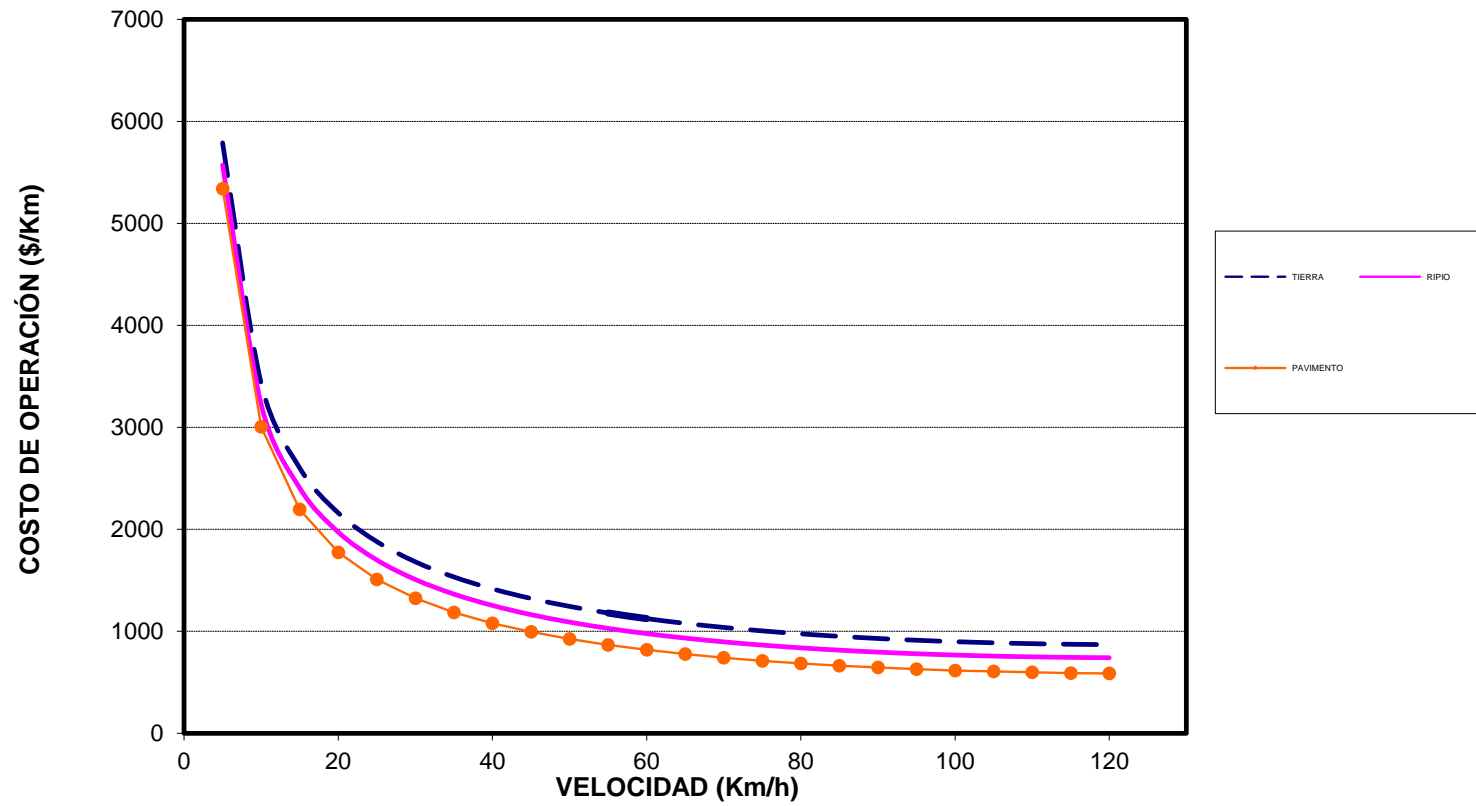
COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**

VEHÍCULO: **OMNIBUS**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL VEHÍCULO REC. + TIEMPO (C) = A + B	COSTO PASAJERO TIEMPO (D)	COSTO TOTAL (C + D)	
5	535,46484	709,74646	1245,21130	4544,00000	5789,21130	414,05679	614,49116	1028,54794	4544,00000	5572,54794	306,78868	488,65812	795,44680	4544,00000	5339,44680	5
10	509,00899	650,55810	1159,56709	2272,00000	3431,56709	391,40431	562,76091	954,16523	2272,00000	3226,16523	287,24176	447,10293	734,34469	2272,00000	3006,34469	10
15	486,24840	600,75832	1087,00672	1514,66667	2601,67339	371,99885	519,24731	891,24616	1514,66667	2405,91283	270,37903	412,13145	682,51048	1514,66667	2197,17715	15
20	466,57347	558,28966	1024,86313	1136,00000	2160,86313	355,30740	482,15013	837,45753	1136,00000	1973,45753	255,77442	382,30352	638,07794	1136,00000	1774,07794	20
25	449,54251	521,66130	971,20381	908,80000	1880,00381	340,94394	450,16494	791,10888	908,80000	1699,90888	243,11920	356,57564	599,69484	908,80000	1508,49484	25
30	434,82766	489,76656	924,59422	757,33333	1681,92755	328,62204	422,32348	750,94552	757,33333	1508,27886	232,18410	334,17316	566,35726	757,33333	1323,69060	30
35	422,18044	461,76667	883,94710	649,14286	1533,08996	318,12480	397,89186	716,01666	649,14286	1365,15952	222,79513	314,50893	537,30406	649,14286	1186,44692	35
40	411,40909	437,01431	848,42339	568,00000	1416,42339	309,28495	376,30376	685,58871	568,00000	1253,58871	214,81764	297,12977	511,94740	568,00000	1079,94740	40
45	402,36329	415,00195	817,36524	504,88889	1322,25412	301,97153	357,11514	659,08668	504,88889	1163,97557	208,14549	281,68031	489,82579	504,88889	994,71468	45
50	394,92352	395,32604	790,24957	454,40000	1244,64957	296,08058	339,97299	636,05357	454,40000	1090,45357	202,69357	267,87788	470,57145	454,40000	924,97145	50
55	388,99359	377,66169	766,65528	413,09091	1179,74619	291,52856	324,59308	616,12164	413,09091	1029,21255	198,39242	255,49481	453,88724	413,09091	866,97815	55
60	384,49518	361,74438	746,23955	378,66667	1124,90622	288,24763	310,74405	598,99168	378,66667	977,65834	195,18433	244,34559	439,52992	378,66667	818,19659	60
65	381,36389	347,35656	728,72045	349,53846	1078,25891	286,18219	298,23565	584,41783	349,53846	933,95629	193,02045	234,27748	427,29793	349,53846	776,83639	65
70	379,54630	334,31770	713,86400	324,57143	1038,43543	285,28627	286,90998	572,19625	324,57143	896,76768	191,85860	225,16353	417,02214	324,57143	741,59356	70
75	378,99772	322,47670	701,47441	302,93333	1004,40775	285,52163	276,63494	562,15657	302,93333	865,08991	191,66170	216,89728	408,55898	302,93333	711,49232	75
80	379,68045	311,70613	691,38658	284,00000	975,38658	286,85618	267,29916	554,15534	284,00000	838,15534	192,39645	209,38871	401,78516	284,00000	685,78516	80
85	381,56252	301,89781	683,46033	267,29412	950,75444	289,26293	258,80807	548,07100	267,29412	815,36512	194,03246	202,56111	396,59357	267,29412	663,88769	85
90	384,61660	292,95925	677,57586	252,44444	930,02030	292,71901	251,08088	543,79989	252,44444	796,24434	196,54159	196,34867	392,89026	252,44444	645,33471	90
95	388,81923	284,81096	673,63019	239,15789	912,78808	297,20500	244,04817	541,25318	239,15789	780,41107	199,89751	190,69456	390,59207	239,15789	629,74996	95
100	394,15010	277,38421	671,53431	227,20000	898,73431	302,70439	237,64995	540,35433	227,20000	767,55433	204,07549	185,54939	389,62488	227,20000	616,82488	100
105	400,59162	270,61926	671,21089	216,38095	887,59184	309,20306	231,83410	541,03716	216,38095	757,41811	209,05238	180,87007	389,92245	216,38095	606,30340	105
110	408,12843	264,46399	672,59242	206,54545	879,13787	316,68900	226,55519	543,24418	206,54545	749,78964	214,80669	176,61881	391,42550	206,54545	597,97095	110
115	416,74705	258,87266	675,61971	197,56522	873,18493	325,15195	221,77337	546,92533	197,56522	744,49054	221,31887	172,76238	394,08124	197,56522	591,64646	115
120	426,43566	253,80501	680,24067	189,33333	869,57400	334,58323	217,45362	552,03686	189,33333	741,37019	228,57157	169,27150	397,84306	189,33333	587,17640	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DEL USUARIO**
VEHÍCULO: **ÓMNIBUS**





COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **OMNIBUS**

SUPERFICIE DE RODAMIENTO: **TIERRA**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	38.675	127,01880	5,96995	30,43915	4,82143	82,93487	136,56681	98,32810	332,18358	58,54301	105,21668	982,02239	4544,00000
10	42.350	118,66594	5,66969	30,62880	4,82143	84,49615	124,71597	89,79550	303,35773	53,46283	97,87368	913,48772	2272,00000
15	46.025	110,99294	5,38952	30,82083	4,82143	86,05743	114,75766	82,62552	279,13525	49,19394	91,65534	855,44986	1514,66667
20	49.700	103,99981	5,12946	31,01528	4,82143	87,61871	106,27206	76,51588	258,49497	45,55636	86,33088	805,75483	1136,00000
25	53.375	97,68655	4,88949	31,21221	4,82143	89,17999	98,95497	71,24758	240,69696	42,41969	81,73306	762,84191	908,80000
30	57.050	92,05316	4,66962	31,41164	4,82143	90,74127	92,58057	66,65801	225,19194	39,68713	77,73777	725,55253	757,33333
35	60.725	87,09963	4,46985	31,61365	4,82143	92,30254	86,97771	62,62395	211,56361	37,28532	74,25092	693,00861	649,14286
40	64.400	82,82597	4,29017	31,81827	4,82143	93,86382	82,01431	59,05030	199,49068	35,15762	71,19991	664,53249	568,00000
45	68.075	79,23218	4,13059	32,02555	4,82143	95,42510	77,58680	55,86250	188,72126	33,25965	68,52781	639,59288	504,88889
50	71.750	76,31826	3,99111	32,23556	4,82143	96,98638	73,61284	53,00125	179,05505	31,55611	66,18936	617,76735	454,40000
55	75.425	74,08420	3,87173	32,44833	4,82143	98,54766	70,02614	50,41882	170,33079	30,01857	64,14812	598,71580	413,09091
60	79.100	72,53001	3,77245	32,66394	4,82143	100,10894	66,77271	48,07635	162,41719	28,62391	62,37443	582,16136	378,66667
65	82.775	71,65569	3,69326	32,88242	4,82143	101,67022	63,80817	45,94188	155,20628	27,35308	60,84389	567,87634	349,53846
70	86.450	71,46124	3,63418	33,10385	4,82143	103,23150	61,09568	43,98889	148,60844	26,19029	59,53626	555,67176	324,57143
75	90.125	71,94665	3,59519	33,32829	4,82143	104,79278	58,60440	42,19517	142,54868	25,12234	58,43459	545,38951	302,93333
80	93.800	73,11193	3,57630	33,55578	4,82143	106,35406	56,30833	40,54200	136,96375	24,13807	57,52460	536,89625	284,00000
85	97.475	74,95708	3,57750	33,78641	4,82143	107,91534	54,18540	39,01348	131,79995	23,22802	56,79415	530,07875	267,29412
90	101.150	77,48210	3,59881	34,02022	4,82143	109,47661	52,21672	37,59604	127,01137	22,38409	56,23289	524,84028	252,44444
95	104.825	80,68698	3,64021	34,25730	4,82143	111,03789	50,38609	36,27798	122,55855	21,59934	55,83189	521,09766	239,15789
100	108.500	84,57173	3,70171	34,49770	4,82143	112,59917	48,67946	35,04921	118,40737	20,86775	55,58346	518,77900	227,20000
105	112.175	89,13635	3,78330	34,74150	4,82143	114,16045	47,08466	33,90095	114,52819	20,18410	55,48091	517,82184	216,38095
110	115.850	94,38083	3,88500	34,98877	4,82143	115,72173	45,59103	32,82555	110,89512	19,54381	55,51839	518,17167	206,54545
115	119.525	100,30518	4,00679	35,23959	4,82143	117,28301	44,18926	31,81627	107,48546	18,94291	55,69079	519,78069	197,56522
120	123.200	106,90940	4,14868	35,49402	4,82143	118,84429	42,87112	30,86720	104,27922	18,37785	55,99359	522,60681	189,33333



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **OMNIBUS**

SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	44.200	107,95882	4,37797	21,66798	4,82143	41,15646	119,49596	86,03709	290,66063	51,22513	87,28818	814,68965	4544,00000
10	48.400	100,61944	4,15778	21,97060	4,82143	42,75725	109,12648	78,57106	265,43802	46,77998	80,90904	755,15108	2272,00000
15	52.600	93,88164	3,95232	22,28180	4,82143	44,35805	100,41295	72,29733	244,24335	43,04469	75,51523	704,80880	1514,66667
20	56.800	87,74543	3,76161	22,60194	4,82143	45,95885	92,98805	66,95140	226,18310	39,86181	70,90483	661,77845	1136,00000
25	61.000	82,21081	3,58563	22,93142	4,82143	47,55964	86,58560	62,34163	210,60984	37,11723	66,93159	624,69480	908,80000
30	65.200	77,27777	3,42439	23,27064	4,82143	49,16044	81,00800	58,32576	197,04294	34,72624	63,48691	592,54452	757,33333
35	69.400	72,94632	3,27789	23,62005	4,82143	50,76124	76,10550	54,79596	185,11816	32,62465	60,48854	564,55972	649,14286
40	73.600	69,21645	3,14613	23,98011	4,82143	52,36203	71,76252	51,66901	174,55435	30,76292	57,87299	540,14795	568,00000
45	77.800	66,08817	3,02911	24,35132	4,82143	53,96283	67,88845	48,87968	165,13111	29,10220	55,59051	518,84481	504,88889
50	82.000	63,56148	2,92683	24,73420	4,82143	55,56362	64,41124	46,37609	156,67317	27,61160	53,60156	500,28121	454,40000
55	86.200	61,63637	2,83928	25,12932	4,82143	57,16442	61,27287	44,11647	149,03944	26,26625	51,87430	484,16015	413,09091
60	90.400	60,31285	2,76647	25,53726	4,82143	58,76522	58,42612	42,06681	142,11504	25,04592	50,38285	470,23997	378,66667
65	94.600	59,59091	2,70840	25,95867	4,82143	60,36601	55,83215	40,19915	135,80550	23,93394	49,10594	458,32210	349,53846
70	98.800	59,47057	2,66507	26,39421	4,82143	61,96681	53,45872	38,49028	130,03239	22,91651	48,02592	448,24190	324,57143
75	103.000	59,95180	2,63648	26,84463	4,82143	63,56761	51,27885	36,92077	124,73010	21,98205	47,12805	439,86176	302,93333
80	107.200	61,03463	2,62263	27,31068	4,82143	65,16840	49,26979	35,47425	119,84328	21,12081	46,39991	433,06581	284,00000
85	111.400	62,71904	2,62351	27,79320	4,82143	66,76920	47,41222	34,13680	115,32496	20,32451	45,83098	427,75585	267,29412
90	115.600	65,00503	2,63914	28,29308	4,82143	68,37000	45,68963	32,89653	111,13495	19,58608	45,41230	423,84818	252,44444
95	119.800	67,89262	2,66950	28,81127	4,82143	69,97079	44,08782	31,74323	107,23873	18,89942	45,13618	421,27100	239,15789
100	124.000	71,38179	2,71460	29,34879	4,82143	71,57159	42,59453	30,66806	103,60645	18,25928	44,99598	419,96250	227,20000
105	128.200	75,47254	2,77444	29,90675	4,82143	73,17239	41,19907	29,66333	100,21217	17,66108	44,98599	419,86919	216,38095
110	132.400	80,16488	2,84902	30,48634	4,82143	74,77318	39,89216	28,72235	97,03323	17,10084	45,10121	420,94464	206,54545
115	136.600	85,45881	2,93833	31,08884	4,82143	76,37398	38,66560	27,83923	94,04978	16,57504	45,33733	423,14838	197,56522
120	140.800	91,35433	3,04239	31,71563	4,82143	77,97478	37,51223	27,00880	91,24432	16,08062	45,69054	426,44505	189,33333



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **OMNIBUS**
 SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	55.250	91,35792	3,74127	7,10094	3,37500	19,92901	95,59677	68,82967	232,52851	40,98011	67,61270	631,05189	4544,00000
10	60.500	84,19866	3,53926	7,43898	3,37500	21,34145	87,30118	62,85685	212,35041	37,42398	62,37909	582,20487	2272,00000
15	65.750	77,56389	3,35078	7,79532	3,37500	22,76549	80,33036	57,83786	195,39468	34,43576	57,94190	540,79103	1514,66667
20	71.000	71,45359	3,17581	8,17051	3,37500	24,20113	74,39044	53,56112	180,94648	31,88945	54,13962	505,30316	1136,00000
25	76.250	65,86777	3,01437	8,56495	3,37500	25,64837	69,26848	49,87330	168,48787	29,69378	50,85527	474,64916	908,80000
30	81.500	60,80642	2,86645	8,97886	3,37500	27,10722	64,80640	46,66061	157,63436	27,78099	48,00195	448,01825	757,33333
35	86.750	56,26955	2,73205	9,41222	3,37500	28,57766	60,88440	43,83677	148,09452	26,09972	45,51383	424,79571	649,14286
40	92.000	52,25715	2,61117	9,86473	3,37500	30,05970	57,41002	41,33521	139,64348	24,61034	43,34002	404,50681	568,00000
45	97.250	48,76923	2,50381	10,33572	3,37500	31,55334	54,31076	39,10375	132,10488	23,28176	41,44059	386,77884	504,88889
50	102.500	45,80578	2,40998	10,82406	3,37500	33,05859	51,52899	37,10087	125,33854	22,08928	39,78373	371,31481	454,40000
55	107.750	43,36682	2,32966	11,32811	3,37500	34,57543	49,01830	35,29317	119,23155	21,01300	38,34372	357,87476	413,09091
60	113.000	41,45232	2,26287	11,84561	3,37500	36,10387	46,74090	33,65345	113,69204	20,03673	37,09953	346,26232	378,66667
65	118.250	40,06231	2,20960	12,37360	3,37500	37,64392	44,66572	32,15932	108,64440	19,14715	36,03372	336,31473	349,53846
70	123.500	39,19676	2,16985	12,90835	3,37500	39,19556	42,76697	30,79222	104,02591	18,33321	35,13166	327,89549	324,57143
75	128.750	38,85570	2,14362	13,44528	3,37500	40,75880	41,02308	29,53662	99,78408	17,58564	34,38094	320,88875	302,93333
80	134.000	39,03911	2,13091	13,97895	3,37500	42,33365	39,41583	28,37940	95,87463	16,89665	33,77090	315,19502	284,00000
85	139.250	39,74700	2,13173	14,50306	3,37500	43,92009	37,92978	27,30944	92,25996	16,25961	33,29228	310,72794	267,29412
90	144.500	40,97936	2,14606	15,01048	3,37500	45,51814	36,55171	26,31723	88,90796	15,66886	32,93698	307,41177	252,44444
95	149.750	42,73620	2,17392	15,49342	3,37500	47,12778	35,27026	25,39459	85,79098	15,11954	32,69780	305,17949	239,15789
100	155.000	45,01751	2,21530	15,94357	3,37500	48,74902	34,07562	24,53445	82,88516	14,60743	32,56837	303,97143	227,20000
105	160.250	47,82330	2,27020	16,35239	3,37500	50,38187	32,95926	23,73067	80,16973	14,12887	32,54295	303,73424	216,38095
110	165.500	51,15356	2,33862	16,71140	3,37500	52,02631	31,91372	22,97788	77,62659	13,68067	32,61645	304,42022	206,54545
115	170.750	55,00831	2,42057	17,01262	3,37500	53,68236	30,93248	22,27139	75,23982	13,26003	32,78431	305,98689	197,56522
120	176.000	59,38752	2,51603	17,24891	3,37500	55,35001	30,00978	21,60704	72,99545	12,86449	33,04251	308,39675	189,33333

COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**

VEHÍCULO: **OMNIBUS**

SUPERFICIE DE RODAMIENTO: **TIERRA**



VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	38.675	171,63088	7,52214	38,35402	4,82143	114,81704	198,31933	142,78992	332,18358	74,46671	26,89076	133,41550	1245,21130	4544,00000
10	42.350	160,34429	7,14381	38,59299	4,82143	116,99667	181,10980	130,39906	303,35773	68,00472	24,55726	124,23933	1159,56709	2272,00000
15	46.025	149,97635	6,79080	38,83495	4,82143	119,17630	166,64856	119,98696	279,13525	62,57469	22,59641	116,46501	1087,00672	1514,66667
20	49.700	140,52707	6,46312	39,07997	4,82143	121,35593	154,32596	111,11469	258,49497	57,94769	20,92555	109,80676	1024,86313	1136,00000
25	53.375	131,99644	6,16076	39,32809	4,82143	123,53556	143,70023	103,46417	240,69696	53,95785	19,48478	104,05755	971,20381	908,80000
30	57.050	124,38446	5,88372	39,57939	4,82143	125,71519	134,44347	96,79930	225,19194	50,48203	18,22962	99,06367	924,59422	757,33333
35	60.725	117,69114	5,63200	39,83392	4,82143	127,89482	126,30712	90,94113	211,56361	47,42692	17,12639	94,70862	883,94710	649,14286
40	64.400	111,91647	5,40561	40,09175	4,82143	130,07445	119,09938	85,75155	199,49068	44,72050	16,14907	90,90251	848,42339	568,00000
45	68.075	107,06045	5,20455	40,35293	4,82143	132,25408	112,66985	81,12229	188,72126	42,30628	15,27727	87,57485	817,36524	504,88889
50	71.750	103,12308	5,02880	40,61754	4,82143	134,43371	106,89895	76,96725	179,05505	40,13937	14,49477	84,66960	790,24957	454,40000
55	75.425	100,10437	4,87838	40,88564	4,82143	136,61334	101,69042	73,21710	170,33079	38,18363	13,78853	82,14164	766,65528	413,09091
60	79.100	98,00431	4,75329	41,15731	4,82143	138,79297	96,96587	69,81542	162,41719	36,40961	13,14791	79,95424	746,23955	378,66667
65	82.775	96,82291	4,65351	41,43261	4,82143	140,97260	92,66083	66,71580	155,20628	34,79311	12,56418	78,07719	728,72045	349,53846
70	86.450	96,56016	4,57906	41,71161	4,82143	143,15223	88,72180	63,87970	148,60844	33,31405	12,03008	76,48543	713,86400	324,57143
75	90.125	97,21606	4,52994	41,99441	4,82143	145,33186	85,10402	61,27490	142,54868	31,95562	11,53953	75,15797	701,47441	302,93333
80	93.800	98,79062	4,50613	42,28106	4,82143	147,51149	81,76972	58,87420	136,96375	30,70362	11,08742	74,07713	691,38658	284,00000
85	97.475	101,28383	4,50765	42,57165	4,82143	149,69112	78,68684	56,65453	131,79995	29,54604	10,66940	73,22789	683,46033	267,29412
90	101.150	104,69569	4,53450	42,86626	4,82143	151,87075	75,82798	54,59614	127,01137	28,47257	10,28176	72,59741	677,57586	252,44444
95	104.825	109,02620	4,58666	43,16498	4,82143	154,05038	73,16957	52,68209	122,55855	27,47436	9,92130	72,17466	673,63019	239,15789
100	108.500	114,27537	4,66415	43,46789	4,82143	156,23001	70,69124	50,89770	118,40737	26,54378	9,58525	71,95010	671,53431	227,20000
105	112.175	120,44319	4,76696	43,77509	4,82143	158,40964	68,37531	49,23022	114,52819	25,67417	9,27123	71,91545	671,21089	216,38095
110	115.850	127,52967	4,89510	44,08665	4,82143	160,58927	66,20630	47,66854	110,89512	24,85973	8,97713	72,06347	672,59242	206,54545
115	119.525	135,53480	5,04856	44,40269	4,82143	162,76890	64,17068	46,20289	107,48546	24,09538	8,70111	72,38783	675,61971	197,56522
120	123.200	144,45858	5,22734	44,72328	4,82143	164,94853	62,25649	44,82468	104,27922	23,37662	8,44156	72,88293	680,24067	189,33333



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **OMNIBUS**
 SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	44200	145,87658	5,51624	27,30215	4,82143	57,01097	173,52941	124,94118	290,66063	65,15837	23,52941	110,20157	1028,54794	4544,00000
10	48400	135,95943	5,23880	27,68346	4,82143	59,23012	158,47107	114,09917	265,43802	59,50413	21,48760	102,23199	954,16523	2272,00000
15	52600	126,85515	4,97993	28,07558	4,82143	61,44927	145,81749	104,98859	244,24335	54,75285	19,77186	95,49066	891,24616	1514,66667
20	56800	118,56376	4,73963	28,47896	4,82143	63,66842	135,03521	97,22535	226,18310	50,70423	18,30986	89,72759	837,45753	1136,00000
25	61000	111,08524	4,51790	28,89411	4,82143	65,88756	125,73770	90,53115	210,60984	47,21311	17,04918	84,76167	791,10888	908,80000
30	65200	104,41960	4,31474	29,32154	4,82143	68,10671	117,63804	84,69939	197,04294	44,17178	15,95092	80,45845	750,94552	757,33333
35	69400	98,56683	4,13015	29,76180	4,82143	70,32586	110,51873	79,57349	185,11816	41,49856	14,98559	76,71607	716,01666	649,14286
40	73600	93,52695	3,96413	30,21549	4,82143	72,54501	104,21196	75,03261	174,55435	39,13043	14,13043	73,45593	685,58871	568,00000
45	77800	89,29994	3,81668	30,68322	4,82143	74,76415	98,58612	70,98201	165,13111	37,01799	13,36761	70,61643	659,08668	504,88889
50	82000	85,88581	3,68780	31,16566	4,82143	76,98330	93,53659	67,34634	156,67317	35,12195	12,68293	68,14860	636,05357	454,40000
55	86200	83,28456	3,57749	31,66351	4,82143	79,20245	88,97912	64,06497	149,03944	33,41067	12,06497	66,01303	616,12164	413,09091
60	90400	81,49618	3,48575	32,17753	4,82143	81,42160	84,84513	61,08850	142,11504	31,85841	11,50442	64,17768	598,99168	378,66667
65	94600	80,52069	3,41259	32,70851	4,82143	83,64074	81,07822	58,37632	135,80550	30,44397	10,99366	62,61620	584,41783	349,53846
70	98800	80,35807	3,35799	33,25731	4,82143	85,85989	77,63158	55,89474	130,03239	29,14980	10,52632	61,30674	572,19625	324,57143
75	103000	81,00833	3,32197	33,82485	4,82143	88,07904	74,46602	53,61553	124,73010	27,96117	10,09709	60,23106	562,15657	302,93333
80	107200	82,47147	3,30451	34,41208	4,82143	90,29819	71,54851	51,51493	119,84328	26,86567	9,70149	59,37379	554,15534	284,00000
85	111400	84,74749	3,30563	35,02007	4,82143	92,51733	68,85099	49,57271	115,32496	25,85278	9,33573	58,72189	548,07100	267,29412
90	115600	87,83638	3,32531	35,64993	4,82143	94,73648	66,34948	47,77163	111,13495	24,91349	8,99654	58,26427	543,79989	252,44444
95	119800	91,73815	3,36357	36,30286	4,82143	96,95563	64,02337	46,09683	107,23873	24,04007	8,68114	57,99141	541,25318	239,15789
100	124000	96,45280	3,42040	36,98015	4,82143	99,17478	61,85484	44,53548	103,60645	23,22581	8,38710	57,89511	540,35433	227,20000
105	128200	101,98033	3,49579	37,68319	4,82143	101,39392	59,82839	43,07644	100,21217	22,46490	8,11232	57,96827	541,03716	216,38095
110	132400	108,32074	3,58976	38,41349	4,82143	103,61307	57,93051	41,70997	97,03323	21,75227	7,85498	58,20473	543,24418	206,54545
115	136600	115,47402	3,70230	39,17265	4,82143	105,83222	56,14934	40,42753	94,04978	21,08346	7,61347	58,59914	546,92533	197,56522
120	140800	123,44018	3,83341	39,96242	4,82143	108,05137	54,47443	39,22159	91,24432	20,45455	7,38636	59,14681	552,03686	189,33333



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **OMNIBUS**
 SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHICULO (\$/Km)	COSTO DEL PASAJERO (\$/Km)
5	55.250	123,44503	4,71400	8,94735	3,37500	27,48377	138,82353	99,95294	232,52851	52,12670	18,82353	85,22644	795,44680	4544,00000
10	60.500	113,77128	4,45947	9,37328	3,37500	29,48587	126,77686	91,27934	212,35041	47,60331	17,19008	78,67979	734,34469	2272,00000
15	65.750	104,80621	4,22198	9,82228	3,37500	31,49957	116,65399	83,99087	195,39468	43,80228	15,81749	73,12612	682,51048	1514,66667
20	71.000	96,54982	4,00152	10,29503	3,37500	33,52487	108,02817	77,78028	180,94648	40,56338	14,64789	68,36549	638,07794	1136,00000
25	76.250	89,00212	3,79810	10,79203	3,37500	35,56177	100,59016	72,42492	168,48787	37,77049	13,63934	64,25302	599,69484	908,80000
30	81.500	82,16311	3,61172	11,31357	3,37500	37,61028	94,11043	67,75951	157,63436	35,33742	12,76074	60,68114	566,35726	757,33333
35	86.750	76,03278	3,44238	11,85962	3,37500	39,67038	88,41499	63,65879	148,09452	33,19885	11,98847	57,56829	537,30406	649,14286
40	92.000	70,61113	3,29007	12,42979	3,37500	41,74208	83,36957	60,02609	139,64348	31,30435	11,30435	54,85151	511,94740	568,00000
45	97.250	65,89817	3,15480	13,02324	3,37500	43,82538	78,86889	56,78560	132,10488	29,61440	10,69409	52,48133	489,82579	504,88889
50	102.500	61,89389	3,03657	13,63856	3,37500	45,92028	74,82927	53,87707	125,33854	28,09756	10,14634	50,41837	470,57145	454,40000
55	107.750	58,59829	2,93537	14,27368	3,37500	48,02679	71,18329	51,25197	119,23155	26,72854	9,65197	48,63078	453,88724	413,09091
60	113.000	56,01138	2,85121	14,92574	3,37500	50,14489	67,87611	48,87080	113,69204	25,48673	9,20354	47,09249	439,52992	378,66667
65	118.250	54,13316	2,78409	15,59102	3,37500	52,27459	64,86258	46,70106	108,64440	24,35518	8,79493	45,78192	427,29793	349,53846
70	123.500	52,96362	2,73401	16,26482	3,37500	54,41590	62,10526	44,71579	104,02591	23,31984	8,42105	44,68094	417,02214	324,57143
75	128.750	52,50276	2,70096	16,94136	3,37500	56,56880	59,57282	42,89243	99,78408	22,36893	8,07767	43,77418	408,55898	302,93333
80	134.000	52,75059	2,68495	17,61380	3,37500	58,73330	57,23881	41,21194	95,87463	21,49254	7,76119	43,04841	401,78516	284,00000
85	139.250	53,70710	2,68598	18,27419	3,37500	60,90941	55,08079	39,65817	92,25996	20,68223	7,46858	42,49217	396,59357	267,29412
90	144.500	55,37230	2,70404	18,91355	3,37500	63,09711	53,07958	38,21730	88,90796	19,93080	7,19723	42,09539	392,89026	252,44444
95	149.750	57,74618	2,73914	19,52207	3,37500	65,29641	51,21870	36,87746	85,79098	19,23205	6,94491	41,84915	390,59207	239,15789
100	155.000	60,82875	2,79128	20,08927	3,37500	67,50732	49,48387	35,62839	82,88516	18,58065	6,70968	41,74552	389,62488	227,20000
105	160.250	64,62000	2,86045	20,60438	3,37500	69,72982	47,86271	34,46115	80,16973	17,97192	6,48986	41,77741	389,92245	216,38095
110	165.500	69,11994	2,94666	21,05675	3,37500	71,96393	46,34441	33,36798	77,62659	17,40181	6,28399	41,93845	391,42550	206,54545
115	170.750	74,32856	3,04991	21,43629	3,37500	74,20963	44,91947	32,34202	75,23982	16,86676	6,09078	42,22299	394,08124	197,56522
120	176.000	80,24586	3,17020	21,73402	3,37500	76,46694	43,57955	31,37727	72,99545	16,36364	5,90909	42,62604	397,84306	189,33333



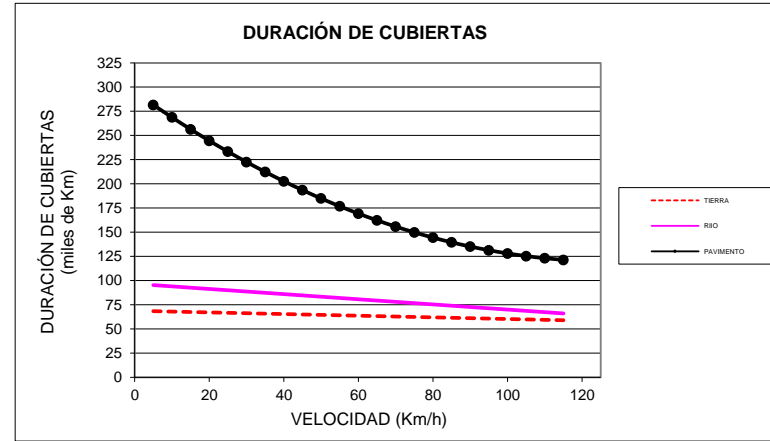
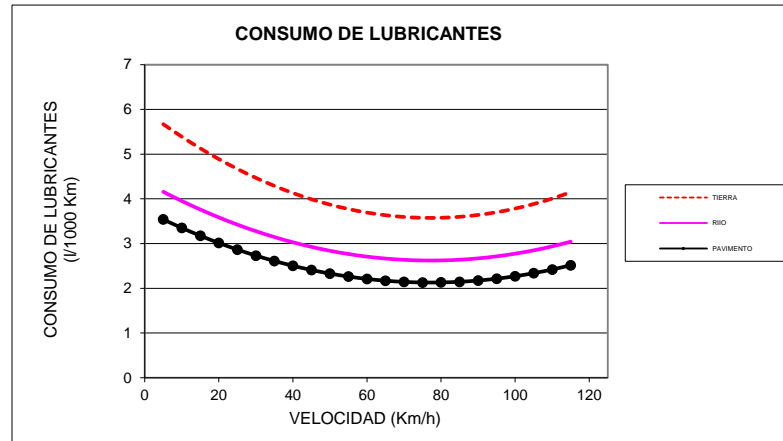
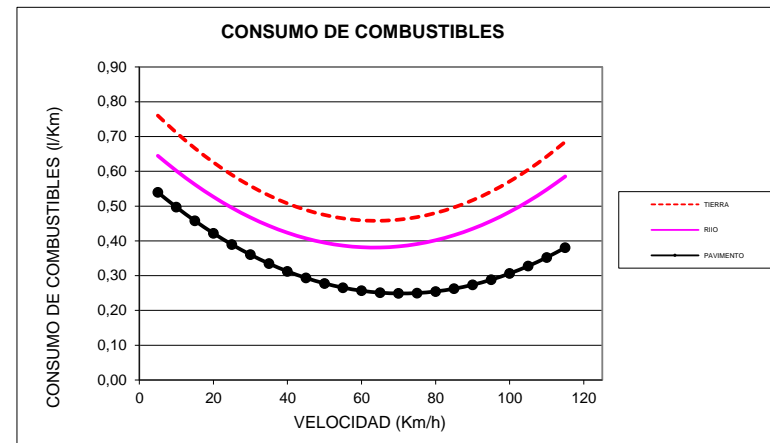
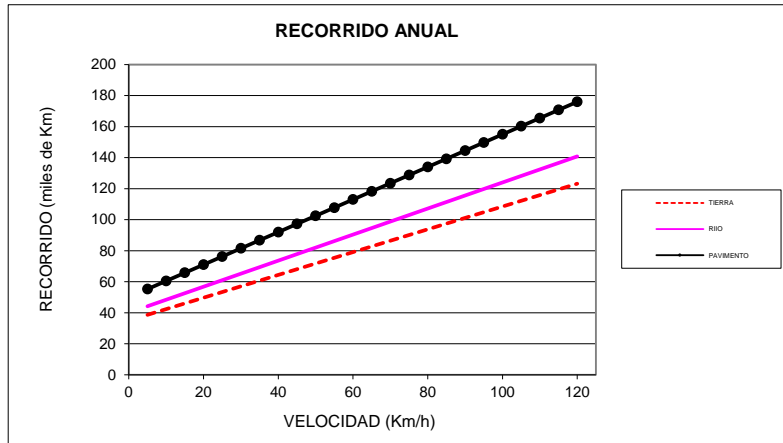
PLANILLA DE CONSUMOS
VEHÍCULO: **OMNIBUS**

VELOCIDAD (Km/h)	RECORRIDO ANUAL (Km)			CONSUMO DE COMBUSTIBLES (l/Km)			CONSUMO DE LUBRICANTES (l/1000 Km)			DURACIÓN DE CUBIERTAS (Km)			VELOCIDAD (Km/h)
	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	
5	38.675	44.200	55.250	0,81373	0,69163	0,58528	5,96995	4,37797	3,74127	68.832	96.696	295.059	5
10	42.350	48.400	60.500	0,76022	0,64461	0,53941	5,66969	4,15778	3,53926	68.406	95.364	281.652	10
15	46.025	52.600	65.750	0,71106	0,60144	0,49691	5,38952	3,95232	3,35078	67.980	94.032	268.777	15
20	49.700	56.800	71.000	0,66626	0,56213	0,45776	5,12946	3,76161	3,17581	67.554	92.700	256.434	20
25	53.375	61.000	76.250	0,62582	0,52668	0,42198	4,88949	3,58563	3,01437	67.128	91.368	244.625	25
30	57.050	65.200	81.500	0,58973	0,49507	0,38955	4,66962	3,42439	2,86645	66.701	90.036	233.348	30
35	60.725	69.400	86.750	0,55799	0,46732	0,36049	4,46985	3,27789	2,73205	66.275	88.704	222.604	35
40	64.400	73.600	92.000	0,53062	0,44343	0,33478	4,29017	3,14613	2,61117	65.849	87.372	212.393	40
45	68.075	77.800	97.250	0,50759	0,42339	0,31244	4,13059	3,02911	2,50381	65.423	86.041	202.714	45
50	71.750	82.000	102.500	0,48893	0,40720	0,29345	3,99111	2,92683	2,40998	64.997	84.709	193.569	50
55	75.425	86.200	107.750	0,47461	0,39487	0,27783	3,87173	2,83928	2,32966	64.570	83.377	184.956	55
60	79.100	90.400	113.000	0,46466	0,38639	0,26556	3,77245	2,76647	2,26287	64.144	82.045	176.876	60
65	82.775	94.600	118.250	0,45905	0,38176	0,25666	3,69326	2,70840	2,20960	63.718	80.713	169.328	65
70	86.450	98.800	123.500	0,45781	0,38099	0,25111	3,63418	2,66507	2,16985	63.292	79.381	162.314	70
75	90.125	103.000	128.750	0,46092	0,38408	0,24893	3,59519	2,63648	2,14362	62.866	78.049	155.832	75
80	93.800	107.200	134.000	0,46838	0,39101	0,25010	3,57630	2,62263	2,13091	62.439	76.717	149.882	80
85	97.475	111.400	139.250	0,48020	0,40180	0,25464	3,57750	2,62351	2,13173	62.013	75.385	144.466	85
90	101.150	115.600	144.500	0,49638	0,41645	0,26253	3,59881	2,63914	2,14606	61.587	74.053	139.582	90
95	104.825	119.800	149.750	0,51691	0,43495	0,27379	3,64021	2,66950	2,17392	61.161	72.722	135.232	95
100	108.500	124.000	155.000	0,54180	0,45730	0,28840	3,70171	2,71460	2,21530	60.734	71.390	131.413	100
105	112.175	128.200	160.250	0,57104	0,48351	0,30638	3,78330	2,77444	2,27020	60.308	70.058	128.128	105
110	115.850	132.400	165.500	0,60464	0,51357	0,32771	3,88500	2,84902	2,33862	59.882	68.726	125.375	110
115	119.525	136.600	170.750	0,64259	0,54748	0,35241	4,00679	2,93833	2,42057	59.456	67.394	123.156	115
120	123.200	140.800	176.000	0,68490	0,58525	0,38046	4,14868	3,04239	2,51603	59.030	66.062	121.469	120



GRÁFICOS DE CONSUMOS

VEHÍCULO: **OMNIBUS**





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **ÓMNIBUS**

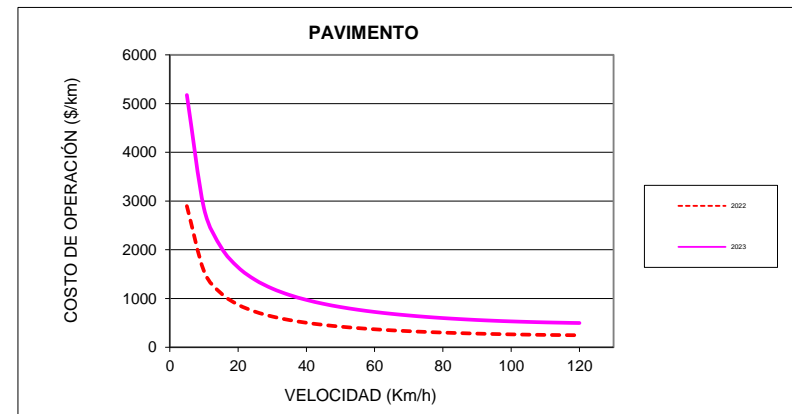
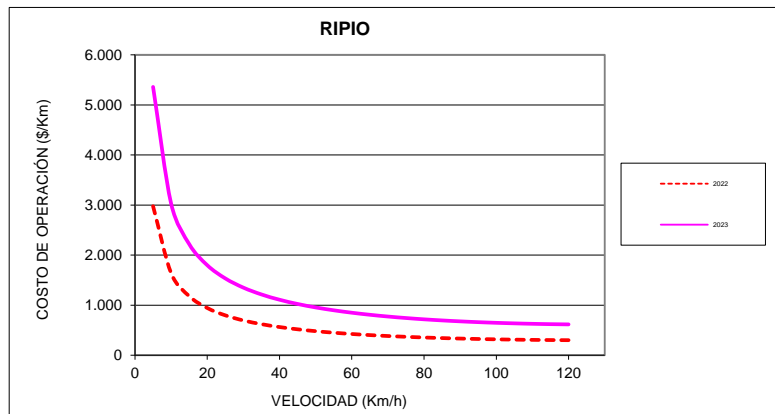
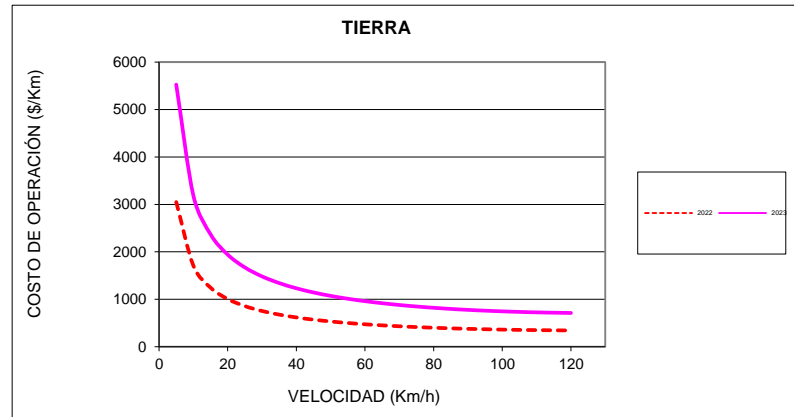
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	3049,84913	5526,02239	2476,17326	0,81190	81,19	2976,45035	5358,68965	2382,23930	0,80036	80,04	2896,95373	5175,05189	2278,09816	0,78638	78,64	5
10	1708,58810	3185,48772	1476,89962	0,86440	86,44	1639,03927	3027,15108	1388,11180	0,84691	84,69	1564,00692	2854,20487	1290,19795	0,82493	82,49	10
15	1246,42966	2370,11653	1123,68687	0,90152	90,15	1180,18168	2219,47546	1039,29379	0,88062	88,06	1108,87283	2055,45770	946,58486	0,85365	85,36	15
20	1006,47639	1941,75483	935,27844	0,92926	92,93	943,09248	1797,77845	854,68597	0,90626	90,63	874,92353	1641,30316	766,37962	0,87594	87,59	20
25	856,87804	1671,64191	814,76387	0,95085	95,09	796,00288	1533,49480	737,49192	0,92649	92,65	730,50402	1383,44916	652,94513	0,89383	89,38	25
30	753,41857	1482,88587	729,46729	0,96821	96,82	694,75738	1349,87785	655,12048	0,94295	94,29	631,54317	1205,35158	573,80841	0,90858	90,86	30
35	676,98929	1342,15146	665,16217	0,98253	98,25	620,29318	1213,70258	593,40940	0,95666	95,67	559,04200	1073,93856	514,89656	0,92103	92,10	35
40	617,93644	1232,53249	614,59605	0,99459	99,46	562,99205	1108,14795	545,15590	0,96832	96,83	503,43130	972,50681	469,07551	0,93176	93,18	40
45	570,83230	1144,48177	573,64947	1,00494	100,49	517,45416	1023,73369	506,27954	0,97840	97,84	459,34941	891,66773	432,31832	0,94115	94,12	45
50	532,37708	1072,16735	539,79027	1,01392	101,39	480,40193	954,68121	474,27928	0,98726	98,73	423,54875	825,71481	402,16606	0,94952	94,95	50
55	500,44119	1011,80671	511,36552	1,02183	102,18	449,72376	897,25106	447,52729	0,99512	99,51	393,94143	770,96567	377,02424	0,95706	95,71	55
60	473,58404	960,82803	487,24399	1,02884	102,88	423,99374	848,90664	424,91290	1,00217	100,22	369,12032	724,92899	355,80867	0,96394	96,39	60
65	450,79327	917,41480	466,62153	1,03511	103,51	402,21165	807,86056	405,64891	1,00855	100,85	348,10006	685,85319	337,75314	0,97028	97,03	65
70	431,33481	880,24319	448,90838	1,04074	104,07	383,65358	772,81333	389,15975	1,01435	101,44	330,16833	652,46692	322,29859	0,97616	97,62	70
75	414,66220	848,32284	433,66064	1,04582	104,58	367,78163	742,79509	375,01346	1,01966	101,97	314,79616	623,82208	309,02592	0,98167	98,17	75
80	400,35945	820,89625	420,53680	1,05040	105,04	354,18710	717,06581	362,87871	1,02454	102,45	301,58153	599,19502	297,61349	0,98684	98,68	80
85	388,10375	797,37287	409,26912	1,05454	105,45	342,55348	695,04997	352,49650	1,02903	102,90	290,21266	578,02206	287,80940	0,99172	99,17	85
90	377,64042	777,28472	399,64431	1,05827	105,83	332,63151	676,29262	343,66111	1,03316	103,32	280,44343	559,85622	279,41279	0,99632	99,63	90
95	368,76556	760,25555	391,48999	1,06162	106,16	324,22209	660,42889	336,20680	1,03696	103,70	272,07648	544,33739	272,26091	1,00068	100,07	95
100	361,31383	745,97900	384,66517	1,06463	106,46	317,16408	647,16250	329,99842	1,04047	104,05	264,95134	531,17143	266,22010	1,00479	100,48	100
105	355,14960	734,20280	379,05319	1,06731	106,73	311,32561	636,25015	324,92454	1,04368	104,37	258,93595	520,11519	261,17924	1,00866	100,87	105
110	350,16048	724,71713	374,55665	1,06967	106,97	306,59769	627,49010	320,89240	1,04662	104,66	253,92055	510,96567	257,04513	1,01231	101,23	110
115	346,25246	717,34591	371,09344	1,07174	107,17	302,88942	620,71360	317,82418	1,04931	104,93	249,81315	503,55211	253,73897	1,01572	101,57	115
120	343,34630	711,94014	368,59384	1,07353	107,35	300,12435	615,77839	315,65403	1,05174	105,17	246,53620	497,73009	251,19388	1,01889	101,89	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: DE LA COMUNIDAD

VEHÍCULO: ÓMNIBUS





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **ÓMNIBUS**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	3177,64532	5789,21130	2611,56598	0,82186	82,19	3080,65090	5572,54794	2491,89704	0,80889	80,89	2977,70530	5339,44680	2361,74150	0,79314	79,31	5
10	1828,06255	3431,56709	1603,50454	0,87716	87,72	1736,01306	3226,16523	1490,15217	0,85838	85,84	1638,71070	3006,34469	1367,63399	0,83458	83,46	10
15	1358,79734	2601,67339	1242,87605	0,91469	91,47	1270,99391	2405,91283	1134,91892	0,89294	89,29	1178,39354	2197,17715	1018,78361	0,86455	86,46	15
20	1112,72128	2160,86313	1048,14186	0,94196	94,20	1028,60629	1973,45753	944,85124	0,91857	91,86	939,96424	1774,07794	834,11370	0,88739	88,74	20
25	957,81671	1880,00381	922,18710	0,96280	96,28	876,93498	1699,90888	822,97391	0,93847	93,85	791,65068	1508,49484	716,84416	0,90551	90,55	25
30	849,74337	1681,92755	832,18418	0,97934	97,93	771,71580	1508,27886	736,56306	0,95445	95,44	689,29477	1323,69060	634,39582	0,92035	92,04	30
35	769,29839	1533,08996	763,79157	0,99284	99,28	693,80362	1365,15952	671,35590	0,96765	96,76	613,83164	1186,44692	572,61528	0,93285	93,29	35
40	706,75532	1416,42339	709,66808	1,00412	100,41	633,51665	1253,58871	620,07206	0,97878	97,88	555,64112	1079,94740	524,30628	0,94361	94,36	40
45	656,62948	1322,25412	665,62464	1,01370	101,37	585,40529	1163,97557	578,57028	0,98832	98,83	509,32160	994,71468	485,39308	0,95302	95,30	45
50	615,57577	1244,64957	629,07380	1,02193	102,19	546,15236	1090,45357	544,30121	0,99661	99,66	471,59364	924,97145	453,37781	0,96137	96,14	50
55	581,42813	1179,74619	598,31806	1,02905	102,90	513,61442	1029,21255	515,59812	1,00386	100,39	440,34360	866,97815	426,63455	0,96887	96,89	55
60	552,71626	1124,90622	572,18996	1,03523	103,52	486,33964	977,65834	491,31870	1,01024	101,02	414,14326	818,19659	404,05333	0,97564	97,56	60
65	528,40341	1078,25891	549,85551	1,04060	104,06	463,30653	933,95629	470,64976	1,01585	101,58	391,98979	776,83639	384,84659	0,98178	98,18	65
70	507,73523	1038,43543	530,70021	1,04523	104,52	443,77351	896,76768	452,99418	1,02078	102,08	373,15621	741,59356	368,43735	0,98735	98,74	70
75	490,14829	1004,40775	514,25946	1,04919	104,92	427,18792	865,08991	437,90199	1,02508	102,51	357,10108	711,49232	354,39123	0,99241	99,24	75
80	475,21231	975,38658	500,17427	1,05253	105,25	413,12866	838,15534	425,02669	1,02880	102,88	343,41167	685,78516	342,37349	0,99698	99,70	80
85	462,59235	950,75444	488,16209	1,05527	105,53	401,26867	815,36512	414,09644	1,03197	103,20	331,76689	663,88769	332,12080	1,00107	100,11	85
90	452,02335	930,02030	477,99695	1,05746	105,75	391,34976	796,24434	404,89458	1,03461	103,46	321,91244	645,33471	323,42227	1,00469	100,47	90
95	443,29248	912,78808	469,49560	1,05911	105,91	383,16510	780,41107	397,24597	1,03675	103,67	313,64371	629,74996	316,10625	1,00785	100,79	95
100	436,22670	898,73431	462,50761	1,06025	106,02	376,54694	767,55433	391,00739	1,03840	103,84	306,79376	616,82488	310,03112	1,01055	101,06	100
105	430,68368	887,59184	456,90816	1,06089	106,09	371,35770	757,41811	386,06042	1,03959	103,96	301,22475	606,30340	305,07865	1,01279	101,28	105
110	426,54518	879,13787	452,59270	1,06107	106,11	367,48339	749,78964	382,30624	1,04034	104,03	296,82174	597,97095	301,14921	1,01458	101,46	110
115	423,71207	873,18493	449,47286	1,06080	106,08	364,82879	744,49054	379,66175	1,04066	104,07	293,48812	591,64646	298,15834	1,01591	101,59	115
120	422,10058	869,57400	447,47342	1,06011	106,01	363,31369	741,37019	378,05650	1,04058	104,06	291,14227	587,17640	296,03413	1,01680	101,68	120

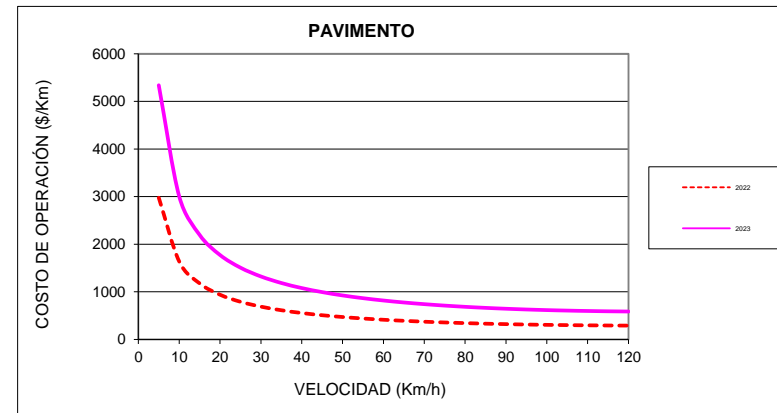
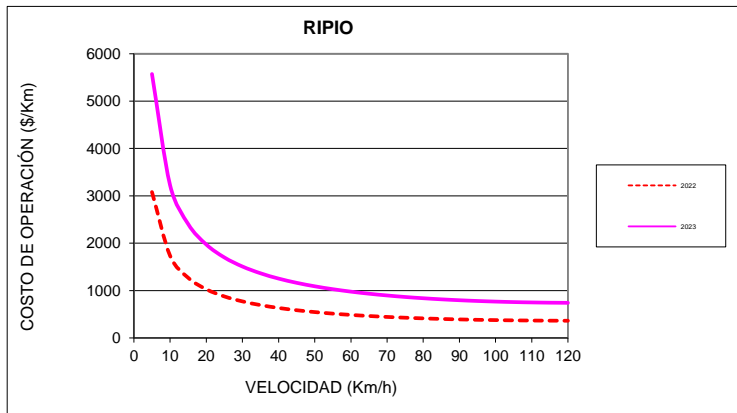
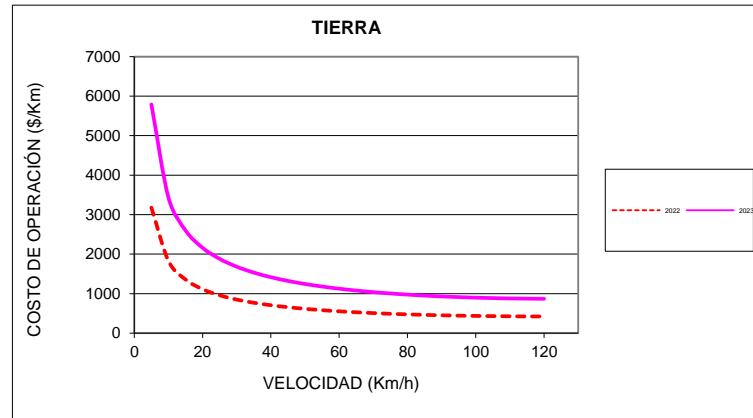




GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: DEL USUARIO

VEHÍCULO: OMNIBUS



CAPÍTULO 4

CAMIÓN LIVIANO



Vialidad Nacional

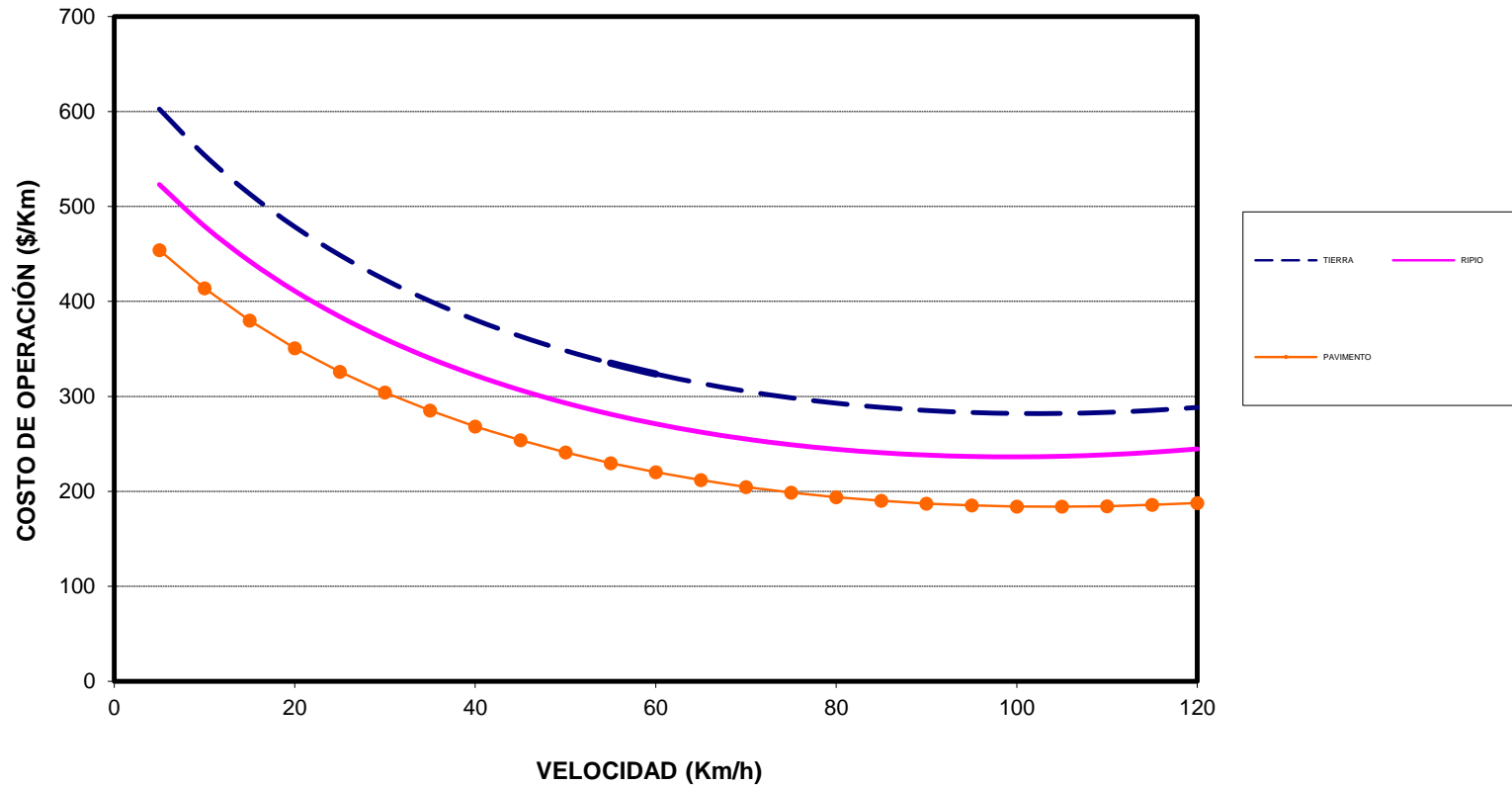


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMIÓN LIVIANO**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA			TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO			TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO			VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	
5	195,12538	407,43923	602,56462	162,26803	360,82700	523,09503	131,06625	322,94730	454,01355	5
10	184,98259	369,05847	554,04106	152,61637	326,63446	479,25083	121,68607	292,09077	413,77684	10
15	175,93558	337,36748	513,30307	144,00036	298,39579	442,39615	113,26428	266,59588	379,86016	15
20	167,86092	310,75621	478,61713	136,31023	274,67981	410,99004	105,70184	245,17454	350,87638	20
25	160,67257	288,09764	448,77021	129,46945	254,48472	383,95417	98,92947	226,92508	325,85455	25
30	154,30892	268,57933	422,88825	123,42319	237,08835	360,51154	92,89716	211,19747	304,09463	30
35	148,72484	251,60084	400,32568	118,13128	221,95696	340,08824	87,56781	197,51122	285,07903	35
40	143,88673	236,70880	380,59553	113,56377	208,68756	322,25133	82,91312	185,50349	268,41661	40
45	139,76924	223,55456	363,32381	109,69803	196,97021	306,66825	78,91093	174,89512	253,80605	45
50	136,35310	211,86560	348,21869	106,51684	186,56266	293,07950	75,54336	165,46778	241,01114	50
55	133,62362	201,42582	335,04945	104,00701	177,27283	281,27984	72,79549	157,04825	229,84374	55
60	131,56970	192,06176	323,63146	102,15853	168,94649	271,10502	70,65443	149,49725	220,15168	60
65	130,18305	183,63255	313,81560	100,96385	161,45840	262,42225	69,10861	142,70150	211,81010	65
70	129,45771	176,02265	305,48036	100,41749	154,70585	255,12334	68,14725	136,56785	204,71509	70
75	129,38973	169,13644	298,52618	100,51568	148,60382	249,11949	67,76004	131,01895	198,77898	75
80	129,97689	162,89418	292,87107	101,25615	143,08136	244,33751	67,93688	125,98999	193,92687	80
85	131,21861	157,22883	288,44744	102,63803	138,07887	240,71691	68,66780	121,42621	190,09401	85
90	133,11586	152,08374	285,19961	104,66177	133,54594	238,20771	69,94296	117,28103	187,22399	90
95	135,67124	147,41076	283,08200	107,32913	129,43968	236,76881	71,75285	113,51451	185,26736	95
100	138,88904	143,16877	282,05781	110,64326	125,72349	236,36675	74,08851	110,09229	184,18081	100
105	142,77545	139,32257	282,09801	114,60884	122,36596	236,97480	76,94189	106,98464	183,92653	105
110	147,33884	135,84195	283,18079	119,23227	119,34013	238,57240	80,30618	104,16577	184,47195	110
115	152,59021	132,70101	285,29122	124,52201	116,62281	241,14482	84,17620	101,61329	185,78949	115
120	158,54381	129,87760	288,42140	130,48898	114,19409	244,68308	88,54863	99,30771	187,85634	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DE LA COMUNIDAD**
VEHÍCULO: **CAMIÓN LIVIANO**



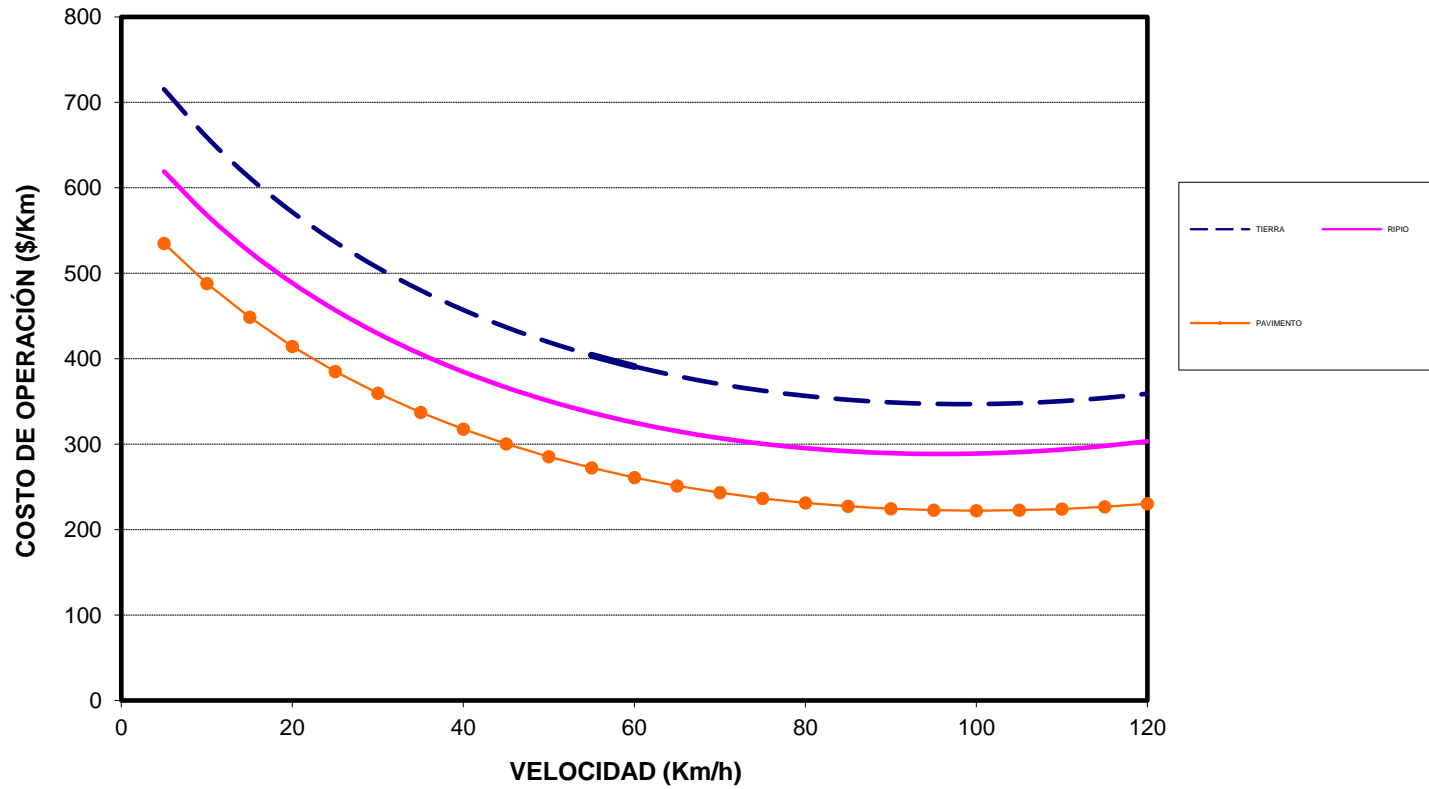


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMIÓN LIVIANO**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA			TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO			TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO			VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	
	5	265,51847	449,89422	715,41269	221,00083	398,10410	619,10493	179,04400	355,91088	
10	251,49426	407,75660	659,25086	207,66832	360,54446	568,21278	166,11985	321,99621	488,11606	10
15	239,00576	372,94234	611,94810	195,78445	329,50449	525,28894	154,53357	293,95335	448,48691	15
20	227,87203	343,69318	571,56521	185,18831	303,42130	488,60961	144,14004	270,37564	414,51568	20
25	217,96688	318,77843	536,74531	175,76767	281,20092	456,96859	134,83774	250,27845	385,11619	25
30	209,19984	297,31086	506,51071	167,44204	262,05472	429,49676	126,55339	232,95191	359,50531	30
35	201,50458	278,63481	480,13939	160,15238	245,39985	405,55223	119,23266	217,87133	337,10399	35
40	194,83160	262,25522	457,08682	153,85458	230,79626	384,65085	112,83418	204,64044	317,47462	40
45	189,14344	247,79137	436,93481	148,51524	217,90552	366,42077	107,32561	192,95440	300,28001	45
50	184,41151	234,94567	419,35719	144,10882	206,46310	350,57192	102,68099	182,57475	285,25575	50
55	180,61391	223,48222	404,09613	140,61568	196,25926	336,87495	98,87880	173,31230	272,19109	55
60	177,73387	213,21161	390,94548	138,02075	187,12564	325,14639	95,90058	165,01490	260,91549	60
65	175,75873	203,98005	379,73878	136,31255	178,92551	315,23805	93,72999	157,55880	251,28879	65
70	174,67915	195,66144	370,34059	135,48252	171,54674	307,02925	92,35202	150,84219	243,19421	70
75	174,48861	188,15143	362,64004	135,52456	164,89655	300,42111	91,75244	144,78053	236,53297	75
80	175,18305	181,36301	356,54606	136,43470	158,89753	295,33223	91,91754	139,30294	231,22048	80
85	176,76066	175,22307	351,98373	138,21087	153,48467	291,69554	92,83391	134,34950	227,18341	85
90	179,22176	169,66985	348,89161	140,85282	148,60300	289,45581	94,48845	129,86921	224,35765	90
95	182,56882	164,65089	347,21971	144,36207	144,20579	288,56786	96,86856	125,81834	222,68690	95
100	186,80656	160,12145	346,92801	148,74200	140,25318	288,99518	99,96245	122,15922	222,12168	100
105	191,94220	156,04325	347,98545	153,99797	136,71103	290,70900	103,75952	118,85929	222,61881	105
110	197,98577	152,38352	350,36930	160,13760	133,55005	293,68765	108,25081	115,89028	224,14109	110
115	204,95068	149,11425	354,06493	167,17111	130,74513	297,91624	113,42945	113,22767	226,65712	115
120	212,85442	146,21156	359,06598	175,11192	128,27479	303,38671	119,29097	110,85014	230,14111	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DEL USUARIO**
VEHÍCULO: **CAMION LIVIANO**





COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **CAMION LIVIANO**

SUPERFICIE DE RODAMIENTO: **TIERRA**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	22.400	126,46019	5,26866	8,93523	1,51800	23,00533	29,93797	26,94417	294,61339	21,32118	64,56049	602,56462
10	24.800	118,87189	4,98753	9,16014	1,51800	23,40429	27,04075	24,33667	266,10242	19,25784	59,36154	554,04106
15	27.200	111,83806	4,72482	9,39667	1,51800	23,80324	24,65480	22,18932	242,62279	17,55862	54,99676	513,30307
20	29.600	105,35870	4,48052	9,64574	1,51800	24,20219	22,65576	20,39018	222,95068	16,13494	51,28041	478,61713
25	32.000	99,43383	4,25465	9,90837	1,51800	24,60115	20,95658	18,86092	206,22938	14,92482	48,08252	448,77021
30	34.400	94,06343	4,04720	10,18570	1,51800	25,00010	19,49449	17,54504	191,84128	13,88356	45,30946	422,88825
35	36.800	89,24751	3,85816	10,47901	1,51800	25,39905	18,22311	16,40080	179,32989	12,97811	42,89204	400,32568
40	39.200	84,98607	3,68755	10,78971	1,51800	25,79801	17,10741	15,39667	168,35051	12,18353	40,77809	380,59553
45	41.600	81,27910	3,53535	11,11939	1,51800	26,19696	16,12044	14,50840	158,63798	11,48063	38,92755	363,32381
50	44.000	78,12661	3,40157	11,46986	1,51800	26,59591	15,24115	13,71703	149,98500	10,85442	37,30915	348,21869
55	46.400	75,52860	3,28621	11,84314	1,51800	26,99486	14,45281	13,00753	142,22716	10,29298	35,89815	335,04945
60	48.800	73,48506	3,18928	12,24153	1,51800	27,39382	13,74202	12,36782	135,23238	9,78677	34,67480	323,63146
65	51.200	71,99600	3,11076	12,66766	1,51800	27,79277	13,09786	11,78807	128,89336	9,32801	33,62310	313,81560
70	53.600	71,06142	3,05066	13,12453	1,51800	28,19172	12,51139	11,26025	123,12201	8,91034	32,73004	305,48036
75	56.000	70,68131	3,00898	13,61558	1,51800	28,59068	11,97519	10,77767	117,84536	8,52847	31,98495	298,52618
80	58.400	70,85569	2,98572	14,14481	1,51800	28,98963	11,48306	10,33475	113,00240	8,17799	31,37904	292,87107
85	60.800	71,58454	2,98087	14,71684	1,51800	29,38858	11,02978	9,92680	108,54178	7,85517	30,90508	288,44744
90	63.200	72,86786	2,99445	15,33709	1,51800	29,78753	10,61093	9,54983	104,41994	7,55687	30,55710	285,19961
95	65.600	74,70567	3,02645	16,01192	1,51800	30,18649	10,22272	9,20045	100,59970	7,28040	30,33021	283,08200
100	68.000	77,09795	3,07686	16,74887	1,51800	30,58544	9,86192	8,87573	97,04912	7,02345	30,22048	282,05781
105	70.400	80,04471	3,14570	17,55693	1,51800	30,98439	9,52572	8,57315	93,74063	6,78401	30,22479	282,09801
110	72.800	83,54594	3,23295	18,44691	1,51800	31,38335	9,21168	8,29051	90,65027	6,56036	30,34080	283,18079
115	75.200	87,60165	3,33863	19,43194	1,51800	31,78230	8,91769	8,02592	87,75718	6,35099	30,56692	285,29122
120	77.600	92,21184	3,46272	20,52810	1,51800	32,18125	8,64189	7,77770	85,04304	6,15457	30,90229	288,42140



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMION LIVIANO**
 SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	25.200	110,99353	3,86243	7,92813	1,51800	11,35441	26,61153	23,95037	261,87857	18,95216	56,04590	523,09503
10	27.900	103,48876	3,65627	8,12425	1,51800	11,79288	24,03622	21,63260	236,53548	17,11808	51,34830	479,25083
15	30.600	96,54172	3,46361	8,33031	1,51800	12,23135	21,91538	19,72384	215,66471	15,60766	47,39959	442,39615
20	33.300	90,15240	3,28446	8,54709	1,51800	12,66982	20,13845	18,12461	198,17838	14,34217	44,03465	410,99004
25	36.000	84,32081	3,11882	8,77546	1,51800	13,10830	18,62807	16,76526	183,31500	13,26651	41,13795	383,95417
30	38.700	79,04694	2,96669	9,01637	1,51800	13,54677	17,32844	15,59559	170,52558	12,34094	38,62624	360,51154
35	41.400	74,33079	2,82806	9,27087	1,51800	13,98524	16,19832	14,57849	159,40435	11,53610	36,43803	340,08824
40	44.100	70,17237	2,70294	9,54017	1,51800	14,42371	15,20659	13,68593	149,64490	10,82980	34,52693	322,25133
45	46.800	66,57167	2,59133	9,82557	1,51800	14,86218	14,32928	12,89636	141,01154	10,20501	32,85731	306,66825
50	49.500	63,52870	2,49323	10,12858	1,51800	15,30065	13,54769	12,19292	133,32000	9,64837	31,40138	293,07950
55	52.200	61,04345	2,40863	10,45087	1,51800	15,73912	12,84694	11,56225	126,42414	9,14932	30,13713	281,27984
60	54.900	59,11592	2,33754	10,79435	1,51800	16,17759	12,21513	10,99361	120,20656	8,69935	29,04697	271,10502
65	57.600	57,74612	2,27996	11,16117	1,51800	16,61606	11,64254	10,47829	114,57188	8,29157	28,11667	262,42225
70	60.300	56,93404	2,23589	11,55380	1,51800	17,05453	11,12124	10,00911	109,44179	7,92030	27,33464	255,12334
75	63.000	56,67968	2,20532	11,97507	1,51800	17,49300	10,64461	9,58015	104,75143	7,58086	26,69137	249,11949
80	65.700	56,98305	2,18826	12,42821	1,51800	17,93147	10,20716	9,18645	100,44658	7,26932	26,17902	244,33751
85	68.400	57,84414	2,18471	12,91699	1,51800	18,36994	9,80425	8,82382	96,48158	6,98237	25,79110	240,71691
90	71.100	59,26296	2,19467	13,44580	1,51800	18,80841	9,43193	8,48874	92,81772	6,71722	25,52225	238,20771
95	73.800	61,23950	2,21813	14,01975	1,51800	19,24688	9,08686	8,17818	89,42195	6,47147	25,36809	236,76881
100	76.500	63,77376	2,25510	14,64489	1,51800	19,68535	8,76615	7,88954	86,26588	6,24306	25,32501	236,36675
105	79.200	66,86575	2,30558	15,32838	1,51800	20,12382	8,46730	7,62057	83,32500	6,03023	25,39016	236,97480
110	81.900	70,51546	2,36957	16,07879	1,51800	20,56229	8,18816	7,36935	80,57802	5,83143	25,56133	238,57240
115	84.600	74,72290	2,44706	16,90645	1,51800	21,00076	7,92684	7,13415	78,00638	5,64532	25,83694	241,14482
120	87.300	79,48806	2,53806	17,82395	1,51800	21,43923	7,68168	6,91351	75,59381	5,47073	26,21604	244,68308



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **CAMIÓN LIVIANO**

SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	28.000	93,71543	3,37472	3,15906	1,13850	5,72817	23,95037	21,55534	235,69071	17,05694	48,64431	454,01355
10	31.000	86,36173	3,18483	3,33619	1,13850	6,03222	21,63260	19,46934	212,88194	15,40627	44,33323	413,77684
15	34.000	79,52238	3,00684	3,52486	1,13850	6,34787	19,72384	17,75145	194,09824	14,04689	40,69930	379,86016
20	37.000	73,19737	2,84074	3,72551	1,13850	6,67511	18,12461	16,31215	178,36054	12,90796	37,59390	350,87638
25	40.000	67,38672	2,68654	3,93849	1,13850	7,01396	16,76526	15,08874	164,98350	11,93986	34,91299	325,85455
30	43.000	62,09041	2,54423	4,16402	1,13850	7,36441	15,59559	14,03603	153,47302	11,10685	32,58157	304,09463
35	46.000	57,30845	2,41382	4,40209	1,13850	7,72646	14,57849	13,12064	143,46391	10,38249	30,54418	285,07903
40	49.000	53,04084	2,29530	4,65244	1,13850	8,10010	13,68593	12,31734	134,68041	9,74682	28,75892	268,41661
45	52.000	49,28758	2,18868	4,91446	1,13850	8,48535	12,89636	11,60672	126,91038	9,18451	27,19350	253,80605
50	55.000	46,04867	2,09395	5,18712	1,13850	8,88220	12,19292	10,97363	119,98800	8,68353	25,82262	241,01114
55	58.000	43,32410	2,01112	5,46887	1,13850	9,29065	11,56225	10,40602	113,78172	8,23439	24,62612	229,84374
60	61.000	41,11389	1,94018	5,75755	1,13850	9,71070	10,99361	9,89425	108,18590	7,82942	23,58768	220,15168
65	64.000	39,41802	1,88114	6,05031	1,13850	10,14235	10,47829	9,43046	103,11469	7,46241	22,69394	211,81010
70	67.000	38,23650	1,83399	6,34355	1,13850	10,58560	10,00911	9,00820	98,49761	7,12827	21,93376	204,71509
75	70.000	37,56933	1,79874	6,63287	1,13850	11,04045	9,58015	8,62213	94,27629	6,82278	21,29775	198,77898
80	73.000	37,41651	1,77538	6,91315	1,13850	11,50690	9,18645	8,26780	90,40192	6,54239	20,77788	193,92687
85	76.000	37,77803	1,76392	7,17858	1,13850	11,98495	8,82382	7,94144	86,83342	6,28414	20,36722	190,09401
90	79.000	38,65391	1,76435	7,42287	1,13850	12,47460	8,48874	7,63987	83,53595	6,04550	20,05971	187,22399
95	82.000	40,04413	1,77668	7,63952	1,13850	12,97585	8,17818	7,36036	80,47976	5,82432	19,85007	185,26736
100	85.000	41,94870	1,80090	7,82218	1,13850	13,48870	7,88954	7,10058	77,63929	5,61876	19,73366	184,18081
105	88.000	44,36762	1,83702	7,96502	1,13850	14,01315	7,62057	6,85852	74,99250	5,42721	19,70641	183,92653
110	91.000	47,30089	1,88503	8,06321	1,13850	14,54920	7,36935	6,63241	72,52022	5,24829	19,76485	184,47195
115	94.000	50,74851	1,94494	8,11325	1,13850	15,09685	7,13415	6,42074	70,20574	5,08079	19,90602	185,78949
120	97.000	54,71047	2,01674	8,11331	1,13850	15,65610	6,91351	6,22216	68,03443	4,92365	20,12747	187,85634



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMIÓN LIVIANO**
 SUPERFICIE DE RODAMIENTO: **TIERRA**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTE (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	22.400	170,87608	6,63851	11,23852	1,89000	31,03608	43,83929	39,45536	294,61339	27,12054	12,05357	76,65136	715,41269
10	24.800	160,62258	6,28429	11,52141	1,89000	31,57921	39,59677	35,63710	266,10242	24,49597	10,88710	70,63402	659,25086
15	27.200	151,11830	5,95327	11,81891	1,89000	32,12234	36,10294	32,49265	242,62279	22,33456	9,92647	65,56587	611,94810
20	29.600	142,36324	5,64546	12,13218	1,89000	32,66547	33,17568	29,85811	222,95068	20,52365	9,12162	61,23913	571,56521
25	32.000	134,35740	5,36086	12,46251	1,89000	33,20860	30,68750	27,61875	206,22938	18,98438	8,43750	57,50843	536,74531
30	34.400	127,10079	5,09947	12,81134	1,89000	33,75174	28,54651	25,69186	191,84128	17,65988	7,84884	54,26900	506,51071
35	36.800	120,59340	4,86128	13,18025	1,89000	34,29487	26,68478	24,01630	179,32989	16,50815	7,33696	51,44351	480,13939
40	39.200	114,83523	4,64631	13,57104	1,89000	34,83800	25,05102	22,54592	168,35051	15,49745	6,88776	48,97359	457,08682
45	41.600	109,82629	4,45454	13,98571	1,89000	35,38113	23,60577	21,24519	158,63798	14,60337	6,49038	46,81444	436,93481
50	44.000	105,56657	4,28598	14,42652	1,89000	35,92426	22,31818	20,08636	149,98500	13,80682	6,13636	44,93113	419,35719
55	46.400	102,05607	4,14063	14,89602	1,89000	36,46740	21,16379	19,04741	142,22716	13,09267	5,81897	43,29601	404,09613
60	48.800	99,29479	4,01849	15,39711	1,89000	37,01053	20,12295	18,11066	135,23238	12,44877	5,53279	41,88702	390,94548
65	51.200	97,28274	3,91955	15,93308	1,89000	37,55366	19,17969	17,26172	128,89336	11,86523	5,27344	40,68630	379,73878
70	53.600	96,01991	3,84383	16,50772	1,89000	38,09679	18,32090	16,48881	123,12201	11,33396	5,03731	39,67935	370,34059
75	56.000	95,50631	3,79131	17,12536	1,89000	38,63992	17,53571	15,78214	117,84536	10,84821	4,82143	38,85429	362,64004
80	58.400	95,74192	3,76200	17,79100	1,89000	39,18306	16,81507	15,13356	113,00240	10,40240	4,62329	38,20136	356,54606
85	60.800	96,72676	3,75590	18,51049	1,89000	39,72619	16,15132	14,53618	108,54178	9,99178	4,44079	37,71254	351,98373
90	63.200	98,46083	3,77301	19,29063	1,89000	40,26932	15,53797	13,98418	104,41994	9,61234	4,27215	37,38124	348,89161
95	65.600	100,94411	3,81332	20,13942	1,89000	40,81245	14,96951	13,47256	100,59970	9,26067	4,11585	37,20211	347,21971
100	68.000	104,17662	3,87685	21,06633	1,89000	41,35558	14,44118	12,99706	97,04912	8,93382	3,97059	37,17086	346,92801
105	70.400	108,15835	3,96358	22,08269	1,89000	41,89872	13,94886	12,55398	93,74063	8,62926	3,83523	37,28416	347,98545
110	72.800	112,88930	4,07352	23,20209	1,89000	42,44185	13,48901	12,14011	90,65027	8,34478	3,70879	37,53957	350,36930
115	75.200	118,36948	4,20667	24,44104	1,89000	42,98498	13,05851	11,75266	87,75718	8,07846	3,59043	37,93553	354,06493
120	77.600	124,59888	4,36303	25,81976	1,89000	43,52811	12,65464	11,38918	85,04304	7,82861	3,47938	38,47136	359,06598



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMION LIVIANO**
 SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTE (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	25.200	149,97715	4,86666	9,97182	1,89000	15,32695	38,96825	35,07143	261,87857	24,10714	10,71429	66,33267	619,10493
10	27.900	139,83652	4,60689	10,21849	1,89000	15,91929	35,19713	31,67742	236,53548	21,77419	9,67742	60,87994	568,21278
15	30.600	130,44951	4,36415	10,47766	1,89000	16,51162	32,09150	28,88235	215,66471	19,85294	8,82353	56,28096	525,28894
20	33.300	121,81611	4,13842	10,75033	1,89000	17,10396	29,48949	26,54054	198,17838	18,24324	8,10811	52,35103	488,60961
25	36.000	113,93632	3,92971	11,03757	1,89000	17,69629	27,27778	24,55000	183,31500	16,87500	7,50000	48,96092	456,96859
30	38.700	106,81014	3,73802	11,34057	1,89000	18,28863	25,37468	22,83721	170,52558	15,69767	6,97674	46,01751	429,49676
35	41.400	100,43757	3,56335	11,66069	1,89000	18,88096	23,71981	21,34783	159,40435	14,67391	6,52174	43,45202	405,55223
40	44.100	94,81861	3,40570	11,99940	1,89000	19,47330	22,26757	20,04082	149,64490	13,77551	6,12245	41,21259	384,65085
45	46.800	89,95326	3,26507	12,35838	1,89000	20,06563	20,98291	18,88462	141,01154	12,98077	5,76923	39,25937	366,42077
50	49.500	85,84152	3,14146	12,73949	1,89000	20,65797	19,83838	17,85455	133,32000	12,27273	5,45455	37,56128	350,57192
55	52.200	82,48339	3,03487	13,14486	1,89000	21,25030	18,81226	16,93103	126,42414	11,63793	5,17241	36,09374	336,87495
60	54.900	79,87886	2,94530	13,57688	1,89000	21,84264	17,88707	16,09836	120,20656	11,06557	4,91803	34,83711	325,14639
65	57.600	78,02795	2,87275	14,03826	1,89000	22,43497	17,04861	15,34375	114,57188	10,54688	4,68750	33,77551	315,23805
70	60.300	76,93065	2,81722	14,53210	1,89000	23,02731	16,28524	14,65672	109,44179	10,07463	4,47761	32,89599	307,02925
75	63.000	76,58696	2,77870	15,06196	1,89000	23,61964	15,58730	14,02857	104,75143	9,64286	4,28571	32,18798	300,42111
80	65.700	76,99688	2,75721	15,63191	1,89000	24,21197	14,94673	13,45205	100,44658	9,24658	4,10959	31,64274	295,33223
85	68.400	78,16041	2,75273	16,24669	1,89000	24,80431	14,35673	12,92105	96,48158	8,88158	3,94737	31,25309	291,69554
90	71.100	80,07755	2,76528	16,91181	1,89000	25,39664	13,81153	12,43038	92,81772	8,54430	3,79747	31,01312	289,45581
95	73.800	82,74830	2,79484	17,63372	1,89000	25,98898	13,30623	11,97561	89,42195	8,23171	3,65854	30,91798	288,56786
100	76.500	86,17266	2,84143	18,42000	1,89000	26,58131	12,83660	11,55294	86,26588	7,94118	3,52941	30,96377	288,99518
105	79.200	90,35063	2,90503	19,27967	1,89000	27,17365	12,39899	11,15909	83,32500	7,67045	3,40909	31,14739	290,70900
110	81.900	95,28221	2,98565	20,22352	1,89000	27,76598	11,99023	10,79121	80,57802	7,41758	3,29670	31,46653	293,68765
115	84.600	100,96740	3,08329	21,26454	1,89000	28,35832	11,60757	10,44681	78,00638	7,18085	3,19149	31,91960	297,91624
120	87.300	107,40619	3,19796	22,41855	1,89000	28,95065	11,24857	10,12371	75,59381	6,95876	3,09278	32,50572	303,38671



COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**

VEHÍCULO: **CAMION LIVIANO**

SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTE (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	28.000	126,63056	4,25214	3,97339	1,41750	7,69898	35,07143	31,56429	235,69071	21,69643	9,64286	57,31659	534,95488
10	31.000	116,69406	4,01289	4,19619	1,41750	8,12179	31,67742	28,50968	212,88194	19,59677	8,70968	52,29815	488,11606
15	34.000	107,45256	3,78862	4,43348	1,41750	8,55905	28,88235	25,99412	194,09824	17,86765	7,94118	48,05217	448,48691
20	37.000	98,90606	3,57933	4,68586	1,41750	9,01075	26,54054	23,88649	178,36054	16,41892	7,29730	44,41239	414,51568
25	40.000	91,05457	3,38504	4,95375	1,41750	9,47689	24,55000	22,09500	164,98350	15,18750	6,75000	41,26245	385,11619
30	43.000	83,89807	3,20573	5,23741	1,41750	9,95748	22,83721	20,55349	153,47302	14,12791	6,27907	38,51843	359,50531
35	46.000	77,43657	3,04141	5,53685	1,41750	10,45251	21,34783	19,21304	143,46391	13,20652	5,86957	36,11828	337,10399
40	49.000	71,67007	2,89208	5,85173	1,41750	10,96198	20,04082	18,03673	134,68041	12,39796	5,51020	34,01514	317,47462
45	52.000	66,59857	2,75773	6,18130	1,41750	11,48589	18,88462	16,99615	126,91038	11,68269	5,19231	32,17286	300,28001
50	55.000	62,22208	2,63838	6,52424	1,41750	12,02425	17,85455	16,06909	119,98800	11,04545	4,90909	30,56312	285,25575
55	58.000	58,54058	2,53401	6,87862	1,41750	12,57706	16,93103	15,23793	113,78172	10,47414	4,65517	29,16333	272,19109
60	61.000	55,55408	2,44463	7,24171	1,41750	13,14430	16,09836	14,48852	108,18590	9,95902	4,42623	27,95523	260,91549
65	64.000	53,26258	2,37023	7,60994	1,41750	13,72599	15,34375	13,80938	103,11469	9,49219	4,21875	26,92380	251,28879
70	67.000	51,66609	2,31083	7,97876	1,41750	14,32212	14,65672	13,19104	98,49761	9,06716	4,02985	26,05652	243,19421
75	70.000	50,76459	2,26641	8,34267	1,41750	14,93270	14,02857	12,62571	94,27629	8,67857	3,85714	25,34282	236,53297
80	73.000	50,55809	2,23698	8,69520	1,41750	15,55772	13,45205	12,10685	90,40192	8,32192	3,69863	24,77362	231,22048
85	76.000	51,04659	2,22254	9,02905	1,41750	16,19718	12,92105	11,62895	86,83342	7,99342	3,55263	24,34108	227,18341
90	79.000	52,23010	2,22308	9,33631	1,41750	16,85108	12,43038	11,18734	83,53595	7,68987	3,41772	24,03832	224,35765
95	82.000	54,10860	2,23861	9,60881	1,41750	17,51943	11,97561	10,77805	80,47976	7,40854	3,29268	23,85931	222,68690
100	85.000	56,68210	2,26913	9,83855	1,41750	18,20222	11,55294	10,39765	77,63929	7,14706	3,17647	23,79875	222,12168
105	88.000	59,95061	2,31464	10,01822	1,41750	18,89946	11,15909	10,04318	74,99250	6,90341	3,06818	23,85202	222,61881
110	91.000	63,91411	2,37514	10,14172	1,41750	19,61114	10,79121	9,71209	72,52022	6,67582	2,96703	24,01512	224,14109
115	94.000	68,57261	2,45062	10,20465	1,41750	20,33726	10,44681	9,40213	70,20574	6,46277	2,87234	24,28469	226,65712
120	97.000	73,92612	2,54109	10,20473	1,41750	21,07782	10,12371	9,11134	68,03443	6,26289	2,78351	24,65798	230,14111



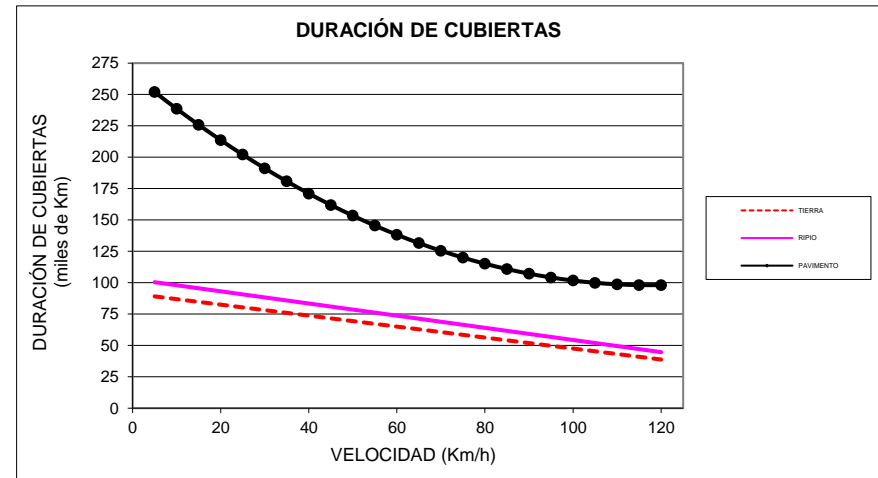
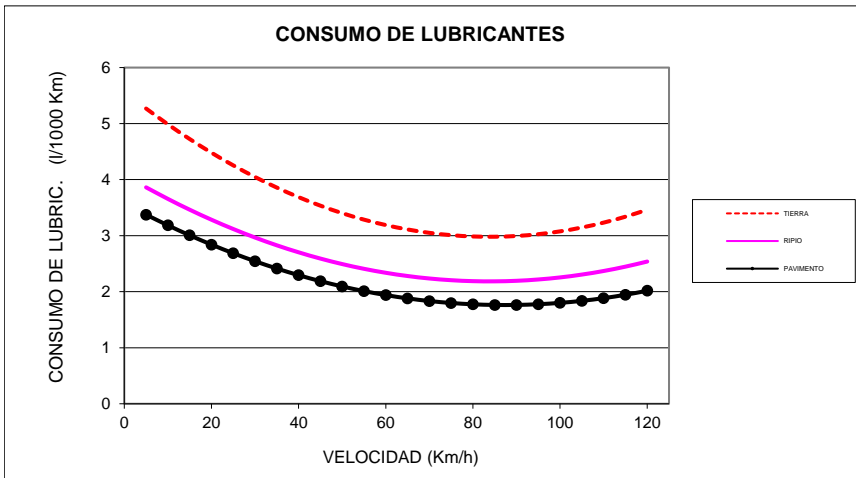
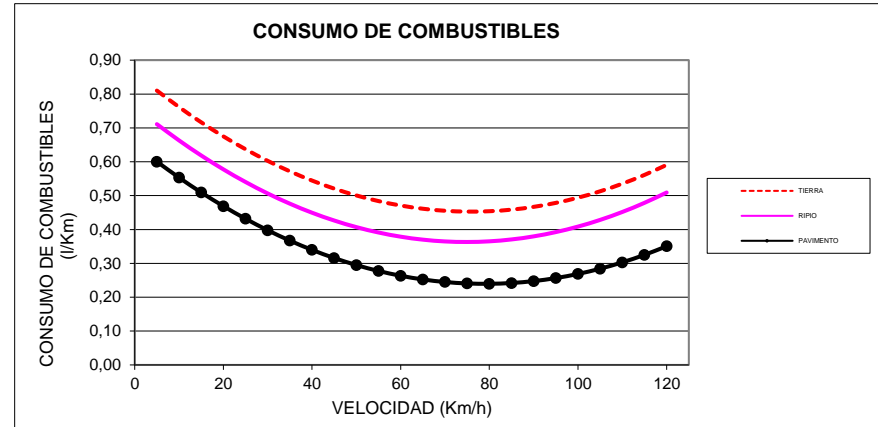
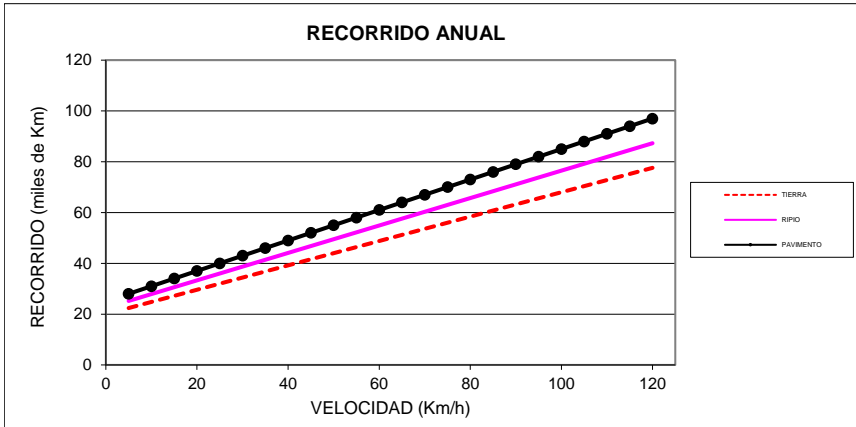
PLANILLA DE CONSUMOS
VEHÍCULO: **CAMIÓN LIVIANO**

VELOCIDAD (Km/h)	RECORRIDO ANUAL (Km)			CONSUMO DE COMBUSTIBLES (l/Km)			CONSUMO DE LUBRICANTES (l/1000 Km)			DURACIÓN DE CUBIERTAS (Km)			VELOCIDAD (Km/h)
	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	
5	22.400	25.200	28.000	0,81015	0,71107	0,60038	5,26866	3,86243	3,37472	89.091	100.408	251.989	5
10	24.800	27.900	31.000	0,76154	0,66299	0,55327	4,98753	3,65627	3,18483	86.903	97.984	238.610	10
15	27.200	30.600	34.000	0,71648	0,61848	0,50945	4,72482	3,46361	3,00684	84.716	95.560	225.838	15
20	29.600	33.300	37.000	0,67497	0,57755	0,46893	4,48052	3,28446	2,84074	82.528	93.137	213.675	20
25	32.000	36.000	40.000	0,63701	0,54019	0,43171	4,25465	3,11882	2,68654	80.341	90.713	202.120	25
30	34.400	38.700	43.000	0,60261	0,50641	0,39778	4,04720	2,96669	2,54423	78.153	88.289	191.173	30
35	36.800	41.400	46.000	0,57175	0,47619	0,36714	3,85816	2,82806	2,41382	75.966	85.865	180.834	35
40	39.200	44.100	49.000	0,54445	0,44955	0,33980	3,68755	2,70294	2,29530	73.778	83.442	171.103	40
45	41.600	46.800	52.000	0,52071	0,42648	0,31576	3,53535	2,59133	2,18868	71.591	81.018	161.981	45
50	44.000	49.500	55.000	0,50051	0,40699	0,29501	3,40157	2,49323	2,09395	69.403	78.594	153.466	50
55	46.400	52.200	58.000	0,48387	0,39107	0,27755	3,28621	2,40863	2,01112	67.216	76.170	145.560	55
60	48.800	54.900	61.000	0,47077	0,37872	0,26339	3,18928	2,33754	1,94018	65.028	73.747	138.261	60
65	51.200	57.600	64.000	0,46123	0,36994	0,25253	3,11076	2,27996	1,88114	62.841	71.323	131.571	65
70	53.600	60.300	67.000	0,45525	0,36474	0,24496	3,05066	2,23589	1,83399	60.653	68.899	125.489	70
75	56.000	63.000	70.000	0,45281	0,36311	0,24068	3,00898	2,20532	1,79874	58.466	66.475	120.015	75
80	58.400	65.700	73.000	0,45393	0,36506	0,23970	2,98572	2,18826	1,77538	56.278	64.052	115.150	80
85	60.800	68.400	76.000	0,45860	0,37057	0,24202	2,98087	2,18471	1,76392	54.091	61.628	110.892	85
90	63.200	71.100	79.000	0,46682	0,37966	0,24763	2,99445	2,19467	1,76435	51.903	59.204	107.243	90
95	65.600	73.800	82.000	0,47859	0,39232	0,25654	3,02645	2,21813	1,77668	49.716	56.780	104.201	95
100	68.000	76.500	85.000	0,49392	0,40856	0,26874	3,07686	2,25510	1,80090	47.528	54.357	101.768	100
105	70.400	79.200	88.000	0,51280	0,42837	0,28424	3,14570	2,30558	1,83702	45.341	51.933	99.943	105
110	72.800	81.900	91.000	0,53523	0,45175	0,30303	3,23295	2,36957	1,88503	43.153	49.509	98.726	110
115	75.200	84.600	94.000	0,56121	0,47870	0,32512	3,33863	2,44706	1,94494	40.966	47.085	98.117	115
120	77.600	87.300	97.000	0,59075	0,50923	0,35050	3,46272	2,53806	2,01674	38.778	44.662	98.116	120



GRÁFICOS DE CONSUMOS

VEHÍCULO: CAMIÓN LIVIANO





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMIÓN LIVIANO**

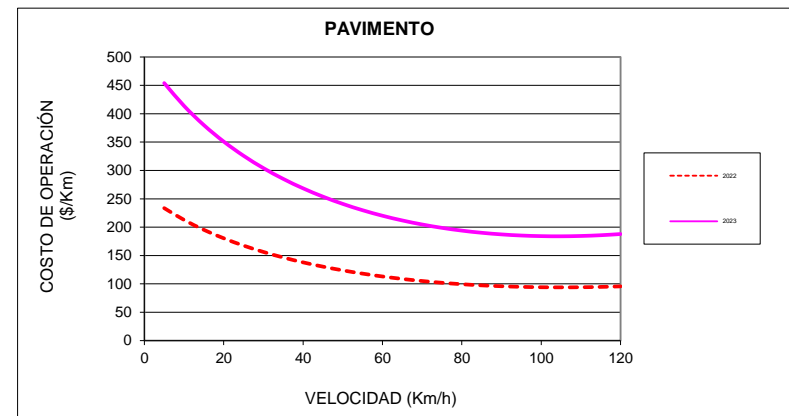
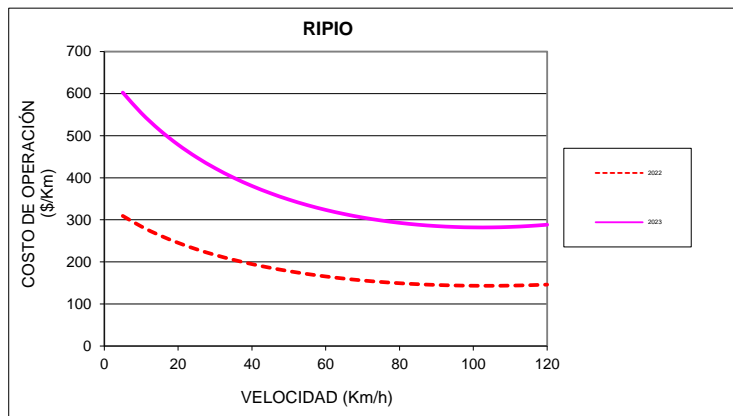
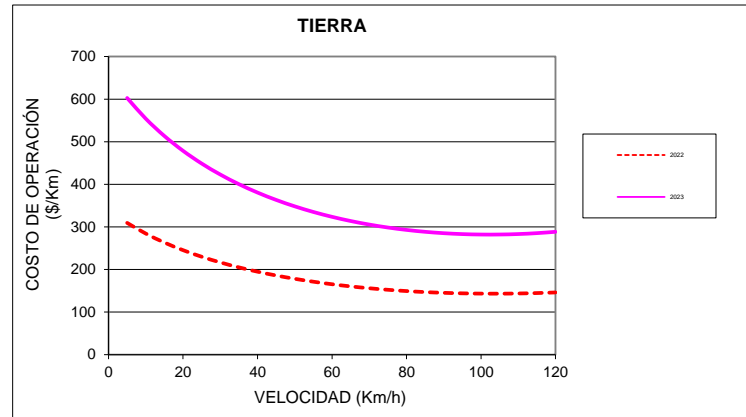
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	309,34554	602,56462	293,21908	0,94787	94,79	268,70715	523,09503	254,38788	0,94671	94,67	233,53086	454,01355	220,48269	0,94413	94,41	5
10	284,27872	554,04106	269,76234	0,94894	94,89	246,07034	479,25083	233,18049	0,94762	94,76	212,77653	413,77684	201,00031	0,94465	94,47	10
15	263,24944	513,30307	250,05362	0,94987	94,99	227,05679	442,39615	215,33936	0,94839	94,84	195,29725	379,86016	184,56291	0,94504	94,50	15
20	245,35506	478,61713	233,26207	0,95071	95,07	210,86412	410,99004	200,12591	0,94908	94,91	180,37076	350,87638	170,50562	0,94531	94,53	20
25	229,96393	448,77021	218,80629	0,95148	95,15	196,93084	383,95417	187,02333	0,94969	94,97	167,49148	325,85455	158,36307	0,94550	94,55	25
30	216,62087	422,88825	206,26738	0,95220	95,22	184,85231	360,51154	175,65923	0,95027	95,03	156,29491	304,09463	147,79972	0,94565	94,56	30
35	204,98969	400,32568	195,33599	0,95291	95,29	174,32967	340,08824	165,75857	0,95083	95,08	146,51156	285,07903	138,56747	0,94578	94,58	35
40	194,81677	380,59553	185,77876	0,95361	95,36	165,13743	322,25133	157,11389	0,95141	95,14	137,93777	268,41661	130,47883	0,94593	94,59	40
45	185,90729	363,32381	177,41651	0,95433	95,43	157,10237	306,66825	149,56587	0,95203	95,20	130,41670	253,80605	123,38934	0,94612	94,61	45
50	178,10922	348,21869	170,10948	0,95509	95,51	150,08930	293,07950	142,99020	0,95270	95,27	123,82541	241,01114	117,18574	0,94638	94,64	50
55	171,30230	335,04945	163,74715	0,95590	95,59	143,99125	281,27984	137,28859	0,95345	95,35	118,06600	229,84374	111,77774	0,94674	94,67	55
60	165,39030	323,63146	158,24116	0,95677	95,68	138,72262	271,10502	132,38240	0,95430	95,43	113,05938	220,15168	107,09231	0,94722	94,72	60
65	160,29543	313,81560	153,52017	0,95773	95,77	134,21415	262,42225	128,20811	0,95525	95,53	108,74066	211,81010	103,06944	0,94785	94,78	65
70	155,95427	305,48036	149,52609	0,95878	95,88	130,40937	255,12334	124,71397	0,95633	95,63	105,05594	204,71509	99,65915	0,94863	94,86	70
75	152,31480	298,52618	146,21138	0,95993	95,99	127,26191	249,11949	121,85758	0,95753	95,75	101,95980	198,77898	96,81918	0,94958	94,96	75
80	149,33412	292,87107	143,53695	0,96118	96,12	124,73349	244,33751	119,60402	0,95888	95,89	99,41350	193,92687	94,51337	0,95071	95,07	80
85	146,97681	288,44744	141,47063	0,96254	96,25	122,79242	240,71691	117,92449	0,96036	96,04	97,38364	190,09401	92,71037	0,95201	95,20	85
90	145,21358	285,19961	139,98603	0,96400	96,40	121,41244	238,20771	116,79527	0,96197	96,20	95,84116	187,22399	91,38283	0,95348	95,35	90
95	144,02037	283,08200	139,06163	0,96557	96,56	120,57190	236,76881	116,19691	0,96371	96,37	94,76066	185,26736	90,50670	0,95511	95,51	95
100	143,37764	282,05781	138,68017	0,96724	96,72	120,25304	236,36675	116,11370	0,96558	96,56	94,11992	184,18081	90,06089	0,95687	95,69	100
105	143,26979	282,09801	138,82822	0,96900	96,90	120,44160	236,97480	116,53320	0,96755	96,75	93,89955	183,92653	90,02697	0,95876	95,88	105
110	143,68491	283,18079	139,49587	0,97085	97,08	121,12641	238,57240	117,44600	0,96962	96,96	94,08286	184,47195	90,38909	0,96074	96,07	110
115	144,61456	285,29122	140,67667	0,97277	97,28	122,29926	241,14482	118,84556	0,97176	97,18	94,65565	185,78949	91,13384	0,96279	96,28	115
120	146,05376	288,42140	142,36764	0,97476	97,48	123,95483	244,68308	120,72825	0,97397	97,40	95,60615	187,85634	92,25020	0,96490	96,49	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: DE LA COMUNIDAD

VEHÍCULO: CAMIÓN LIVIANO





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMION LIVIANO**

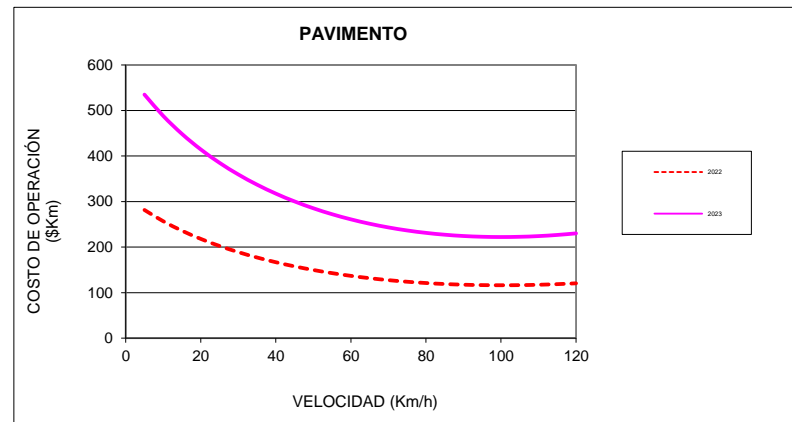
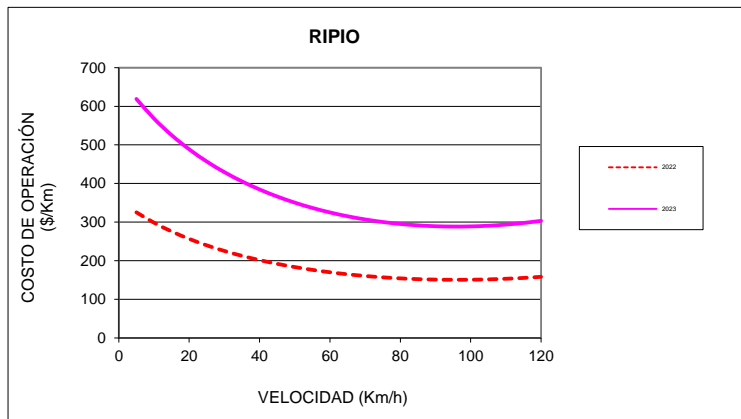
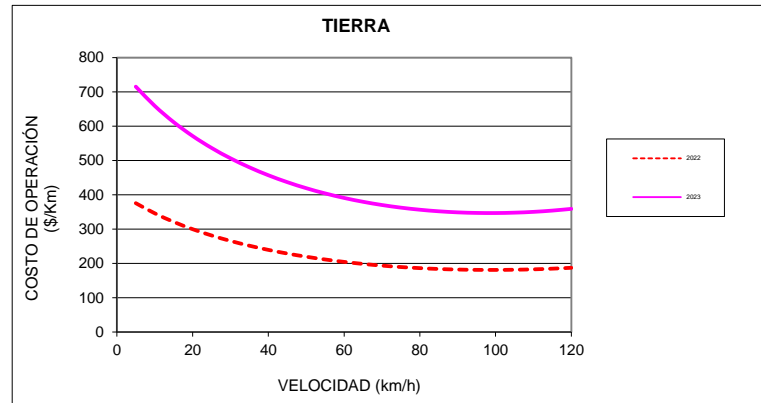
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	375,68550	715,41269	339,72719	0,90429	90,43	325,40050	619,10493	293,70444	0,90259	90,26	281,47798	534,95488	253,47690	0,90052	90,05	5
10	346,10260	659,25086	313,14826	0,90478	90,48	298,57896	568,21278	269,63382	0,90306	90,31	256,79686	488,11606	231,31920	0,90079	90,08	10
15	321,17494	611,94810	290,77316	0,90534	90,53	275,94554	525,28894	249,34339	0,90360	90,36	235,90406	448,48691	212,58285	0,90114	90,11	15
20	299,88457	571,56521	271,68064	0,90595	90,60	256,59539	488,60961	232,01422	0,90420	90,42	217,98506	414,51568	196,53062	0,90158	90,16	20
25	281,51920	536,74531	255,22610	0,90660	90,66	239,89529	456,96859	217,07330	0,90487	90,49	202,46970	385,11619	182,64649	0,90209	90,21	25
30	265,56558	506,51071	240,94513	0,90729	90,73	225,38901	429,49676	204,10776	0,90558	90,56	188,94690	359,50531	170,55841	0,90268	90,27	30
35	251,64462	480,13939	228,49478	0,90801	90,80	212,73952	405,55223	192,81271	0,90633	90,63	177,11272	337,10399	159,99126	0,90333	90,33	35
40	239,47040	457,08682	217,61642	0,90874	90,87	201,69262	384,65085	182,95822	0,90711	90,71	166,73749	317,47462	150,73713	0,90404	90,40	40
45	228,82330	436,93481	208,11151	0,90949	90,95	192,05305	366,42077	174,36772	0,90791	90,79	157,64426	300,28001	142,63575	0,90480	90,48	45
50	219,53199	419,35719	199,82519	0,91023	91,02	183,66842	350,57192	166,90350	0,90872	90,87	149,69431	285,25575	135,56144	0,90559	90,56	50
55	211,46100	404,09613	192,63513	0,91097	91,10	176,41825	336,87495	160,45670	0,90952	90,95	142,77714	272,19109	129,41396	0,90641	90,64	55
60	204,50195	390,94548	186,44352	0,91170	91,17	170,20608	325,14639	154,94031	0,91031	91,03	136,80337	260,91549	124,11212	0,90723	90,72	60
65	198,56728	379,73878	181,17149	0,91239	91,24	164,95399	315,23805	150,28406	0,91107	91,11	131,69966	251,28879	119,58914	0,90804	90,80	65
70	193,58569	370,34059	176,75489	0,91306	91,31	160,59846	307,02925	146,43080	0,91178	91,18	127,40494	243,19421	115,78927	0,90883	90,88	70
75	189,49874	362,64004	173,14130	0,91368	91,37	157,08737	300,42111	143,33374	0,91245	91,24	123,86770	236,53297	112,66527	0,90956	90,96	75
80	186,25833	356,54606	170,28773	0,91426	91,43	154,37778	295,33223	140,95445	0,91305	91,30	121,04390	231,22048	110,17658	0,91022	91,02	80
85	183,82482	351,98373	168,15891	0,91478	91,48	152,43421	291,69554	139,26133	0,91358	91,36	118,89545	227,18341	108,28796	0,91078	91,08	85
90	182,16556	348,89161	166,72604	0,91524	91,52	151,22735	289,45581	138,22846	0,91404	91,40	117,38916	224,35765	106,96849	0,91123	91,12	90
95	181,25387	347,21971	165,96583	0,91565	91,57	150,73314	288,56786	137,83472	0,91443	91,44	116,49594	222,68690	106,19096	0,91154	91,15	95
100	181,06821	346,92801	165,85980	0,91601	91,60	150,93196	288,99518	138,06322	0,91474	91,47	116,19027	222,12168	105,93141	0,91171	91,17	100
105	181,59162	347,98545	166,39383	0,91631	91,63	151,80822	290,70900	138,90078	0,91498	91,50	116,44989	222,61881	106,16891	0,91171	91,17	105
110	182,81140	350,36930	167,55790	0,91656	91,66	153,34993	293,68765	140,33772	0,91515	91,51	117,25564	224,14109	106,88545	0,91156	91,16	110
115	184,71895	354,06493	169,34598	0,91678	91,68	155,54853	297,91624	142,36771	0,91526	91,53	118,59127	226,65712	108,06585	0,91125	91,12	115
120	187,30977	359,06598	171,75621	0,91696	91,70	158,39889	303,38671	144,98781	0,91533	91,53	120,44338	230,14111	109,69773	0,91078	91,08	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: **DEL USUARIO**

VEHÍCULO: **CAMION LIVIANO**



CAPÍTULO 5

CAMIÓN PESADO



Vialidad Nacional

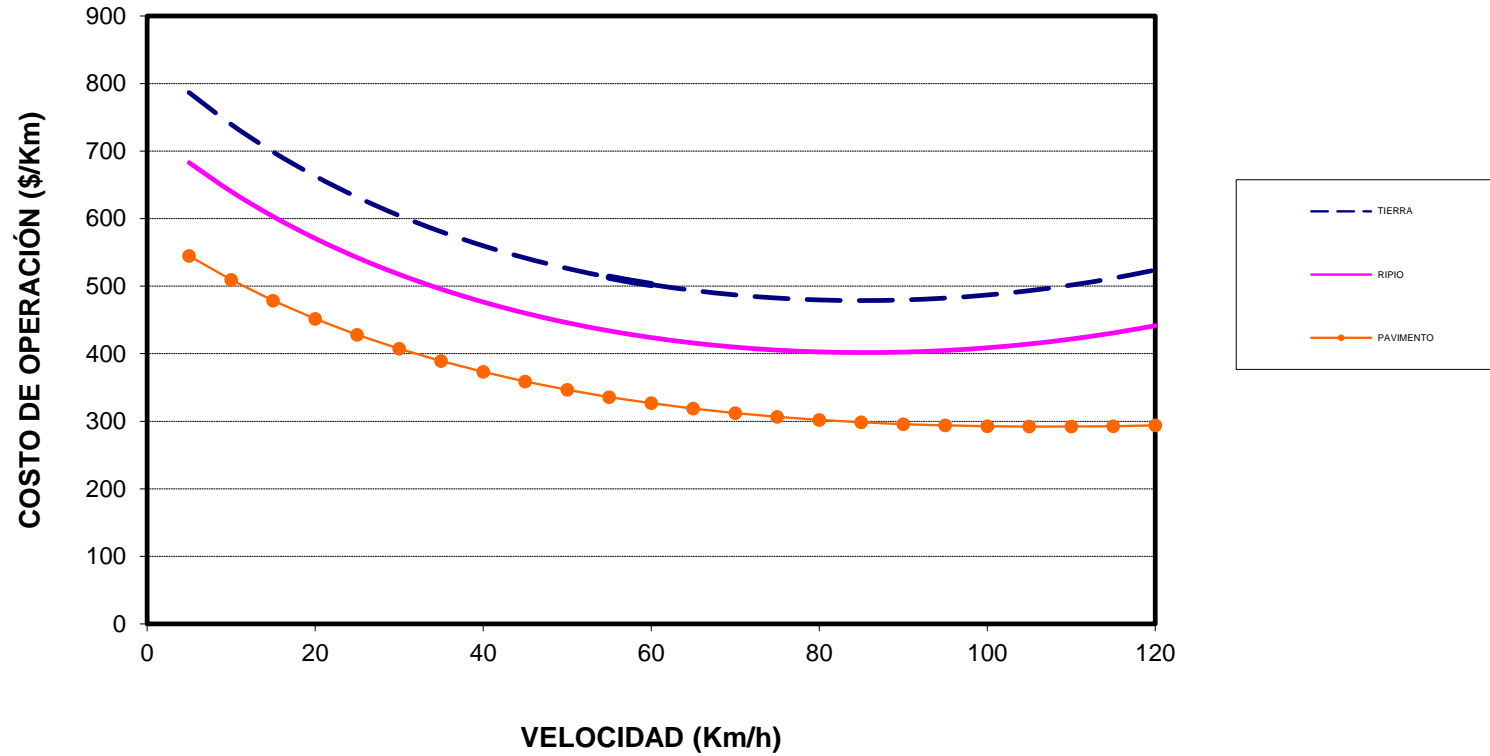


PLANILLA RESUMEN
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMION PESADO**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA			TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO			TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO			VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	
5	314,49003	472,11341	786,60345	264,93233	417,90264	682,83497	176,15998	368,63888	544,79887	5
10	302,04146	437,48932	739,53078	253,14849	387,03946	640,18795	168,09969	341,16744	509,26712	10
15	290,95157	407,72389	698,67546	242,61486	360,50019	603,11505	160,90874	317,55681	478,46555	15
20	281,15167	381,87667	663,02835	233,27016	337,44884	570,71900	154,53072	297,05446	451,58518	20
25	272,59188	359,24090	631,83278	225,06976	317,25715	542,32691	148,92328	279,09470	428,01797	25
30	265,23577	339,27526	604,51102	217,98100	299,44391	517,42490	144,05362	263,24400	407,29762	30
35	259,05699	321,55820	580,61519	211,98009	283,63438	495,61446	139,89536	249,16453	389,05990	35
40	254,03685	305,75670	559,79355	207,05002	269,53247	476,58249	136,42628	236,58898	373,01526	40
45	250,16275	291,60424	541,76699	203,17913	256,90124	460,08037	133,62651	225,30295	358,92945	45
50	247,42712	278,88511	526,31223	200,36013	245,54886	445,90899	131,47711	215,13234	346,60945	50
55	245,82663	267,42298	513,24961	198,58942	235,31854	433,90796	129,95893	205,93410	335,89303	55
60	245,36181	257,07242	502,43423	197,86672	226,08090	423,94762	129,05157	197,58939	326,64096	60
65	246,03672	247,71257	493,74930	198,19475	217,72841	415,92316	128,73254	189,99844	318,73098	65
70	247,85895	239,24233	487,10128	199,57920	210,17107	409,75026	128,97666	183,07661	312,05326	70
75	250,83964	231,57664	482,41627	202,02868	203,33311	405,36180	129,75566	176,75138	306,50704	75
80	254,99372	224,64364	479,63736	205,55497	197,15050	402,70547	131,03814	170,96009	301,99823	80
85	260,34031	218,38247	478,72278	210,17319	191,56890	401,74209	132,78993	165,64810	298,43803	85
90	266,90329	212,74150	479,64479	215,90232	186,54215	402,44447	134,97490	160,76747	295,74237	90
95	274,71205	207,67700	482,38905	222,76572	182,03105	404,79676	137,55625	156,27600	293,83225	95
100	283,80255	203,15214	486,95468	230,79191	178,00243	408,79434	140,49829	152,13646	292,63475	100
105	294,21873	199,13612	493,35485	240,01567	174,42843	414,44410	143,76847	148,31611	292,08458	105
110	306,01438	195,60371	501,61810	250,47937	171,28596	421,76533	147,33957	144,78634	292,12590	110
115	319,25557	192,53488	511,79045	262,23482	168,55636	430,79119	151,19167	141,52237	292,71404	115
120	334,02405	189,91463	523,93868	275,34574	166,22526	441,57100	155,31371	138,50304	293,81676	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DE LA COMUNIDAD**
VEHÍCULO: **CAMIÓN PESADO**



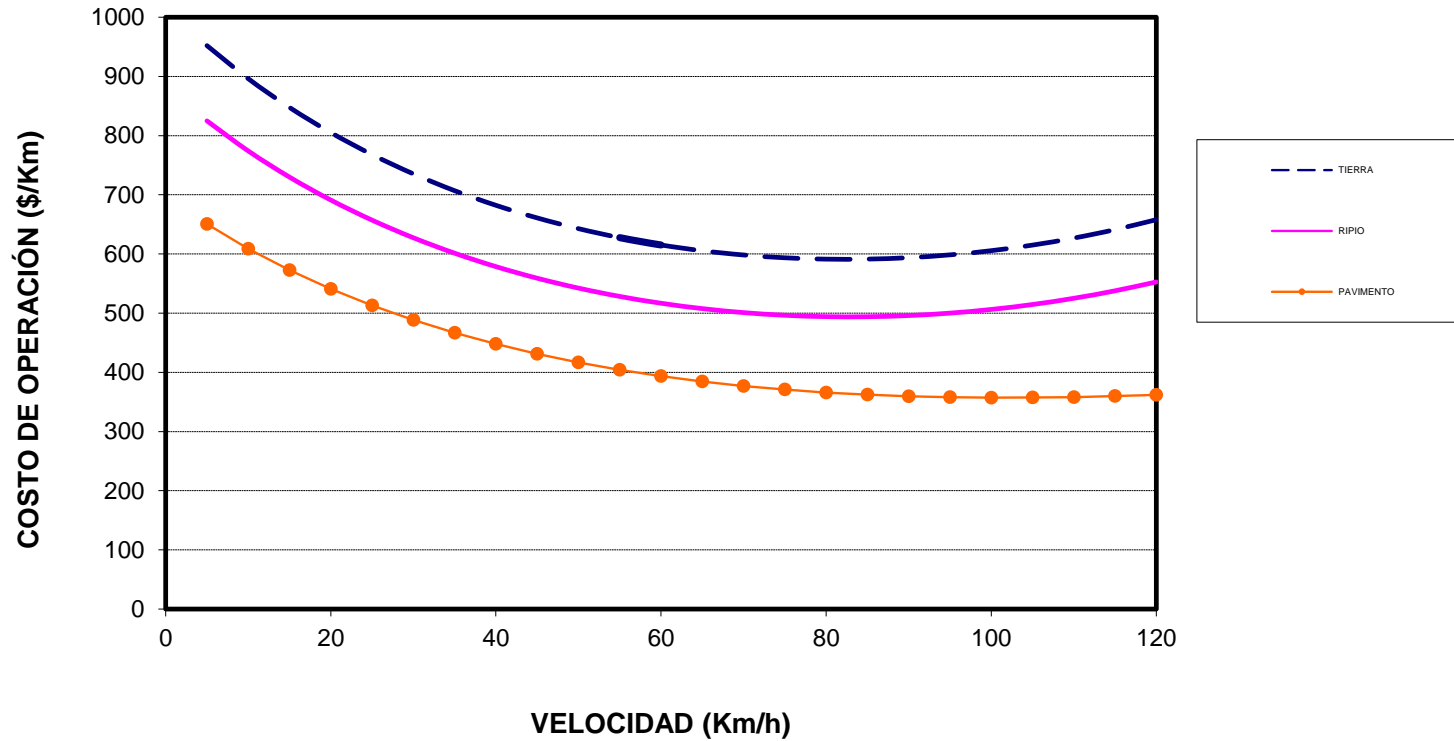


PLANILLA RESUMEN
 COSTOS DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMIÓN PESADO**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA			TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO			TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO			VELOCIDAD (Km/h)
	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	COSTO VEHÍCULO RECORRIDO (A)	COSTO VEHÍCULO TIEMPO (B)	COSTO TOTAL (A + B)	
	5	422,83475	529,18876	952,02350	356,75259	468,09794	824,85054	239,15944	411,45800	
10	405,52041	490,61919	896,13960	340,37362	433,69528	774,06890	227,89623	380,91294	608,80917	10
15	390,09141	457,44795	847,53935	325,72837	404,09805	729,82642	217,84230	354,65066	572,49296	15
20	376,44321	428,63566	805,07886	312,72362	378,38236	691,10598	208,91220	331,83944	540,75164	20
25	364,49939	403,40128	767,90067	301,29112	355,85391	657,14503	201,04172	311,85409	512,89581	25
30	354,20372	381,14663	735,35035	291,38049	335,98093	627,36142	194,18126	294,21550	488,39676	30
35	345,51488	361,40593	706,92081	282,95457	318,34935	601,30392	188,29113	278,55025	466,84138	35
40	338,40292	343,81123	682,21416	275,98624	302,63202	578,61827	183,33820	264,56289	447,90109	40
45	332,84685	328,06812	660,91497	270,45624	288,56719	559,02343	179,29337	252,01640	431,30977	45
50	328,83293	313,93835	642,77128	266,35167	275,94300	542,29467	176,12948	240,71826	416,84774	50
55	326,35356	301,22723	627,58079	263,66498	264,58629	528,25127	173,81971	230,51021	404,32992	55
60	325,40655	289,77425	615,18080	262,39326	254,35427	516,74753	172,33612	221,26070	393,59683	60
65	325,99467	279,44607	605,44074	262,53785	245,12828	507,66613	171,64856	212,85920	384,50776	65
70	328,12544	270,13123	598,25667	264,10411	236,80910	500,91321	171,72378	205,21179	376,93557	70
75	331,81119	261,73605	593,54724	267,10141	229,31324	496,41465	172,52487	198,23795	370,76282	75
80	337,06926	254,18149	591,25076	271,54323	222,57024	494,11347	174,01123	191,86789	365,87912	80
85	343,92247	247,40072	591,32319	277,44753	216,52039	493,96793	176,13890	186,04069	362,17958	85
90	352,39975	241,33719	593,73694	284,83721	211,11311	495,95031	178,86159	180,70277	359,56436	90
95	362,53714	235,94319	598,48033	293,74080	206,30555	500,04635	182,13231	175,80686	357,93917	95
100	374,37906	231,17869	605,55774	304,19348	202,06162	506,25510	185,90554	171,31123	357,21677	100
105	387,98005	227,01053	614,99058	316,23834	198,35120	514,58954	190,13980	167,17912	357,31892	105
110	403,40710	223,41186	626,81895	329,92808	195,14960	525,07768	194,80037	163,37845	358,17882	110
115	420,74274	220,36175	641,10450	345,32738	192,43718	537,76456	199,86178	159,88151	359,74329	115
120	440,08928	217,84519	657,93447	362,51591	190,19923	552,71514	205,30972	156,66475	361,97447	120



GRÁFICO RESUMEN
COSTO DE OPERACIÓN: **DEL USUARIO**
VEHÍCULO: **CAMIÓN PESADO**





COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMIÓN PESADO**
 SUPERFICIE DE RODAMIENTO: **TIERRA**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	43.600	183,28639	9,28167	46,49412	2,07000	39,11804	34,23981	30,81583	330,24220	26,77644	84,27894	786,60345
10	47.200	171,87997	8,96924	47,66445	2,07000	39,82950	31,62830	28,46547	305,05424	24,73417	79,23544	739,53078
15	50.800	161,38305	8,67541	48,89523	2,07000	40,54096	29,38692	26,44823	283,43622	22,98135	74,85808	698,67546
20	54.400	151,79565	8,40017	50,19124	2,07000	41,25241	27,44220	24,69798	264,67941	21,46053	71,03875	663,02835
25	58.000	143,11775	8,14353	51,55784	2,07000	41,96387	25,73889	23,16500	248,25103	20,12850	67,69637	631,83278
30	61.600	135,34936	7,90548	53,00093	2,07000	42,67533	24,23467	21,81120	233,74286	18,95216	64,76904	604,51102
35	65.200	128,49049	7,68602	54,52713	2,07000	43,38678	22,89656	20,60690	220,83681	17,90572	62,20877	580,61519
40	68.800	122,54112	7,48516	56,14384	2,07000	44,09824	21,69848	19,52864	209,28140	16,96879	59,97788	559,79355
45	72.400	117,50126	7,30289	57,85935	2,07000	44,80970	20,61955	18,55760	198,87514	16,12504	58,04646	541,76699
50	76.000	113,37092	7,13922	59,68299	2,07000	45,52116	19,64284	17,67855	189,45474	15,36122	56,39060	526,31223
55	79.600	110,15008	6,99414	61,62534	2,07000	46,23261	18,75447	16,87902	180,88643	14,66649	54,99103	513,24961
60	83.200	107,83875	6,86765	63,69836	2,07000	46,94407	17,94298	16,14868	173,05962	14,03188	53,83224	502,43423
65	86.800	106,43693	6,75976	65,91571	2,07000	47,65553	17,19880	15,47892	165,88203	13,44992	52,90171	493,74930
70	90.400	105,94463	6,67046	68,29299	2,07000	48,36698	16,51389	14,86250	159,27611	12,91430	52,18942	487,10128
75	94.000	106,36183	6,59975	70,84817	2,07000	49,07844	15,88144	14,29330	153,17617	12,41971	51,68746	482,41627
80	97.600	107,68854	6,54764	73,60199	2,07000	49,78990	15,29565	13,76609	147,52623	11,96161	51,38972	479,63736
85	101.200	109,92476	6,51412	76,57854	2,07000	50,50135	14,75154	13,27638	142,27826	11,53610	51,29173	478,72278
90	104.800	113,07049	6,49920	79,80598	2,07000	51,21281	14,24481	12,82033	137,39084	11,13982	51,39051	479,64479
95	108.400	117,12573	6,50287	83,31744	2,07000	51,92427	13,77173	12,39456	132,82804	10,76986	51,68454	482,38905
100	112.000	122,09048	6,52513	87,15213	2,07000	52,63573	13,32907	11,99616	128,55857	10,42369	52,17372	486,95468
105	115.600	127,96474	6,56599	91,35684	2,07000	53,34718	12,91398	11,62258	124,55502	10,09907	52,85945	493,35485
110	119.200	134,74851	6,62544	95,98783	2,07000	54,05864	12,52396	11,27156	120,79329	9,79407	53,74480	501,61810
115	122.800	142,44179	6,70349	101,11339	2,07000	54,77010	12,15681	10,94112	117,25212	9,50694	54,83469	511,79045
120	126.400	151,04458	6,80013	106,81722	2,07000	55,48155	11,81057	10,62951	113,91266	9,23618	56,13629	523,93868



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **CAMIÓN PESADO**

SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	49.050	164,99961	6,80655	41,25376	2,07000	19,36702	30,43539	27,39185	293,54862	23,80128	73,16089	682,83497
10	53.100	153,99479	6,57744	42,27422	2,07000	20,11799	28,11404	25,30264	271,15932	21,98593	68,59157	640,18795
15	57.150	143,84578	6,36196	43,34644	2,07000	20,86897	26,12171	23,50954	251,94331	20,42787	64,61947	603,11505
20	61.200	134,55255	6,16012	44,47447	2,07000	21,61994	24,39307	21,95376	235,27059	19,07603	61,14846	570,71900
25	65.250	126,11512	5,97192	45,66278	2,07000	22,37091	22,87901	20,59111	220,66759	17,89200	58,10645	542,32691
30	69.300	118,53349	5,79735	46,91634	2,07000	23,12189	21,54193	19,38774	207,77143	16,84636	55,43838	517,42490
35	73.350	111,80765	5,63641	48,24066	2,07000	23,87286	20,35250	18,31725	196,29939	15,91619	53,10155	495,61446
40	77.400	105,93761	5,48912	49,64192	2,07000	24,62384	19,28754	17,35879	186,02791	15,08337	51,06241	476,58249
45	81.450	100,92336	5,35545	51,12701	2,07000	25,37481	18,32849	16,49564	176,77790	14,33337	49,29432	460,08037
50	85.500	96,76490	5,23543	52,70371	2,07000	26,12579	17,46030	15,71427	168,40421	13,65442	47,77596	445,90899
55	89.550	93,46224	5,12903	54,38075	2,07000	26,87676	16,67064	15,00357	160,78794	13,03688	46,49014	433,90796
60	93.600	91,01538	5,03628	56,16802	2,07000	27,62774	15,94931	14,35438	153,83077	12,47279	45,42296	423,94762
65	97.650	89,42431	4,95715	58,07676	2,07000	28,37871	15,28782	13,75904	147,45069	11,95548	44,56320	415,92316
70	101.700	88,68903	4,89167	60,11980	2,07000	29,12969	14,67901	13,21111	141,57876	11,47938	43,90181	409,75026
75	105.750	88,80955	4,83982	62,31182	2,07000	29,88066	14,11684	12,70515	136,15660	11,03974	43,43162	405,36180
80	109.800	89,78586	4,80160	64,66973	2,07000	30,63163	13,59614	12,23652	131,13443	10,63254	43,14701	402,70547
85	113.850	91,61797	4,77702	67,21311	2,07000	31,38261	13,11248	11,80123	126,46957	10,25431	43,04380	401,74209
90	117.900	94,30587	4,76608	69,96474	2,07000	32,13358	12,66205	11,39584	122,12519	9,90206	43,11905	402,44447
95	121.950	97,84957	4,76877	72,95128	2,07000	32,88456	12,24154	11,01739	118,06937	9,57321	43,37108	404,79676
100	126.000	102,24906	4,78510	76,20415	2,07000	33,63553	11,84806	10,66325	114,27429	9,26550	43,79939	408,79434
105	130.050	107,50435	4,81506	79,76066	2,07000	34,38651	11,47909	10,33118	110,71557	8,97695	44,40473	414,44410
110	134.100	113,61543	4,85866	83,66539	2,07000	35,13748	11,13241	10,01917	107,37181	8,70584	45,18914	421,76533
115	138.150	120,58231	4,91589	87,97211	2,07000	35,88846	10,80605	9,72544	104,22410	8,45062	46,15620	430,79119
120	142.200	128,40498	4,98676	92,74628	2,07000	36,63943	10,49828	9,44845	101,25570	8,20994	47,31118	441,57100



COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**

VEHÍCULO: **CAMIÓN PESADO**

SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	54.500	115,17038	6,06100	16,43804	1,55250	9,54622	27,39185	24,65266	264,19376	21,42115	58,37131	544,79887
10	59.000	107,88571	5,85080	17,35976	1,55250	10,14827	25,30264	22,77237	244,04339	19,78734	54,56433	509,26712
15	63.500	101,09019	5,65312	18,34148	1,55250	10,76192	23,50954	21,15858	226,74898	18,38508	51,26417	478,46555
20	68.000	94,78380	5,46794	19,38555	1,55250	11,38717	21,95376	19,75838	211,74353	17,16842	48,38413	451,58518
25	72.500	88,96655	5,29528	20,49381	1,55250	12,02403	20,59111	18,53200	198,60083	16,10280	45,85907	428,01797
30	77.000	83,63845	5,13512	21,66733	1,55250	12,67248	19,38774	17,44896	186,99429	15,16173	43,63903	407,29762
35	81.500	78,79949	4,98748	22,90613	1,55250	13,33253	18,31725	16,48552	176,66945	14,32457	41,68499	389,05990
40	86.000	74,44966	4,85234	24,20881	1,55250	14,00418	17,35879	15,62291	167,42512	13,57503	39,96592	373,01526
45	90.500	70,58898	4,72972	25,57223	1,55250	14,68743	16,49564	14,84608	159,10011	12,90003	38,45673	358,92945
50	95.000	67,21744	4,61960	26,99101	1,55250	15,38229	15,71427	14,14284	151,56379	12,28898	37,13673	346,60945
55	99.500	64,33504	4,52200	28,45709	1,55250	16,08874	15,00357	13,50322	144,70915	11,73319	35,98854	335,89303
60	104.000	61,94178	4,43690	29,95922	1,55250	16,80679	14,35438	12,91894	138,44769	11,22551	34,99725	326,64096
65	108.500	60,03766	4,36432	31,48258	1,55250	17,53644	13,75904	12,38313	132,70562	10,75993	34,14975	318,73098
70	113.000	58,62269	4,30424	33,00842	1,55250	18,27770	13,21111	11,89000	127,42088	10,33144	33,43428	312,05326
75	117.500	57,69685	4,25668	34,51392	1,55250	19,03055	12,70515	11,43464	122,54094	9,93577	32,84004	306,50704
80	122.000	57,26016	4,22162	35,97234	1,55250	19,79501	12,23652	11,01287	118,02098	9,56929	32,35695	301,99823
85	126.500	57,31260	4,19908	37,35347	1,55250	20,57106	11,80123	10,62111	113,82261	9,22888	31,97550	298,43803
90	131.000	57,85419	4,18904	38,62461	1,55250	21,35871	11,39584	10,25626	109,91267	8,91185	31,68668	295,74237
95	135.500	58,88492	4,19152	39,75197	1,55250	22,15797	11,01739	9,91565	106,26244	8,61589	31,48203	293,83225
100	140.000	60,40479	4,20650	40,70243	1,55250	22,96882	10,66325	9,59693	102,84686	8,33895	31,35372	292,63475
105	144.500	62,41380	4,23400	41,44572	1,55250	23,79128	10,33118	9,29806	99,64401	8,07926	31,29478	292,08458
110	149.000	64,91195	4,27400	41,95662	1,55250	24,62533	10,01917	9,01725	96,63463	7,83525	31,29920	292,12590
115	153.500	67,89924	4,32652	42,21698	1,55250	25,47099	9,72544	8,75290	93,80169	7,60556	31,36222	292,71404
120	158.000	71,37567	4,39154	42,21730	1,55250	26,32824	9,44845	8,50361	91,13013	7,38894	31,48037	293,81676



COSTOS DE OPERACIÓN (\$/Km): **DEL USUARIO**

VEHÍCULO: **CAMIÓN PESADO**

SUPERFICIE DE RODAMIENTO: **TIERRA**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	43.600	247,66102	11,69490	58,45542	2,07000	51,43047	51,52294	46,37064	330,24220	34,05963	16,51376	102,00252	952,02350
10	47.200	232,24838	11,30124	59,92684	2,07000	52,38072	47,59322	42,83390	305,05424	31,46186	15,25424	96,01496	896,13960
15	50.800	218,06469	10,93102	61,47424	2,07000	53,33098	44,22047	39,79843	283,43622	29,23228	14,17323	90,80779	847,53935
20	54.400	205,10996	10,58422	63,10368	2,07000	54,28123	41,29412	37,16471	264,67941	27,29779	13,23529	86,25845	805,07886
25	58.000	193,38418	10,26085	64,82185	2,07000	55,23149	38,73103	34,85793	248,25103	25,60345	12,41379	82,27507	767,90067
30	61.600	182,88734	9,96090	66,63620	2,07000	56,18174	36,46753	32,82078	233,74286	24,10714	11,68831	78,78754	735,35035
35	65.200	173,61946	9,68439	68,55504	2,07000	57,13200	34,45399	31,00859	220,83681	22,77607	11,04294	75,74152	706,92081
40	68.800	165,58053	9,43130	70,58767	2,07000	58,08225	32,65116	29,38605	209,28140	21,58430	10,46512	73,09437	682,21416
45	72.400	158,77056	9,20164	72,74452	2,07000	59,03251	31,02762	27,92486	198,87514	20,51105	9,94475	70,81232	660,91497
50	76.000	153,18953	8,99541	75,03732	2,07000	59,98276	29,55789	26,60211	189,45474	19,53947	9,47368	68,86835	642,77128
55	79.600	148,83746	8,81261	77,47937	2,07000	60,93302	28,22111	25,39899	180,88643	18,65578	9,04523	67,24080	627,58079
60	83.200	145,71434	8,65324	80,08570	2,07000	61,88327	27,00000	24,30000	173,05962	17,84856	8,65385	65,91223	615,18080
65	86.800	143,82017	8,51729	82,87350	2,07000	62,83353	25,88018	23,29217	165,88203	17,10829	8,29493	64,86865	605,44074
70	90.400	143,15495	8,40478	85,86238	2,07000	63,78378	24,84956	22,36460	159,27611	16,42699	7,96460	64,09893	598,25667
75	94.000	143,71868	8,31569	89,07491	2,07000	64,73404	23,89787	21,50809	153,17617	15,79787	7,65957	63,59435	593,54724
80	97.600	145,51137	8,25003	92,53719	2,07000	65,68429	23,01639	20,71475	147,52623	15,21516	7,37705	63,34830	591,25076
85	101.200	148,53300	8,20779	96,27950	2,07000	66,63455	22,19763	19,97787	142,27826	14,67391	7,11462	63,35606	591,32319
90	104.800	152,78359	8,18899	100,33725	2,07000	67,58480	21,43511	19,29160	137,39084	14,16985	6,87023	63,61467	593,73694
95	108.400	158,26313	8,19362	104,75209	2,07000	68,53506	20,72325	18,65092	132,82804	13,69926	6,64207	64,12289	598,48033
100	112.000	164,97162	8,22167	109,57331	2,07000	69,48531	20,05714	18,05143	128,55857	13,25893	6,42857	64,88119	605,55774
105	115.600	172,90907	8,27315	114,85974	2,07000	70,43557	19,43253	17,48927	124,55502	12,84602	6,22837	65,89185	614,99058
110	119.200	182,07546	8,34806	120,68212	2,07000	71,38582	18,84564	16,96107	120,79329	12,45805	6,04027	67,15917	626,81895
115	122.800	192,47081	8,44640	127,12630	2,07000	72,33608	18,29316	16,46384	117,25212	12,09283	5,86319	68,68977	641,10450
120	126.400	204,09511	8,56816	134,29752	2,07000	73,28633	17,77215	15,99494	113,91266	11,74842	5,69620	70,49298	657,93447



COSTOS DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMION PESADO**
 SUPERFICIE DE RODAMIENTO: **RIPIO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	49.050	222,95147	8,57626	51,86690	2,07000	25,48980	45,79817	41,21835	293,54862	30,27523	14,67890	88,37684	824,85054
10	53.100	208,08150	8,28758	53,14989	2,07000	26,47957	42,30508	38,07458	271,15932	27,96610	13,55932	82,93595	774,06890
15	57.150	194,36790	8,01608	54,49796	2,07000	27,46934	39,30709	35,37638	251,94331	25,98425	12,59843	78,19569	729,82642
20	61.200	181,81067	7,76176	55,91619	2,07000	28,45912	36,70588	33,03529	235,27059	24,26471	11,76471	74,04707	691,10598
25	65.250	170,40982	7,52462	57,41021	2,07000	29,44889	34,42759	30,98483	220,66759	22,75862	11,03448	70,40840	657,14503
30	69.300	160,16533	7,30466	58,98626	2,07000	30,43866	32,41558	29,17403	207,77143	21,42857	10,38961	67,21730	627,36142
35	73.350	151,07721	7,10188	60,65128	2,07000	31,42843	30,62577	27,56319	196,29939	20,24540	9,81595	64,42542	601,30392
40	77.400	143,14547	6,91629	62,41303	2,07000	32,41821	29,02326	26,12093	186,02791	19,18605	9,30233	61,99481	578,61827
45	81.450	136,37009	6,74787	64,28019	2,07000	33,40798	27,58011	24,82210	176,77790	18,23204	8,83978	59,89537	559,02343
50	85.500	130,75108	6,59664	66,26252	2,07000	34,39775	26,27368	23,64632	168,40421	17,36842	8,42105	58,10300	542,29467
55	89.550	126,28845	6,46258	68,37100	2,07000	35,38752	25,08543	22,57688	160,78794	16,58291	8,04020	56,59835	528,25127
60	93.600	122,98219	6,34571	70,61807	2,07000	36,37730	24,00000	21,60000	153,83077	15,86538	7,69231	55,36581	516,74753
65	97.650	120,83229	6,24601	73,01787	2,07000	37,36707	23,00461	20,70415	147,45069	15,20737	7,37327	54,39280	507,66613
70	101.700	119,83877	6,16350	75,58651	2,07000	38,35684	22,08850	19,87965	141,57876	14,60177	7,07965	53,66927	500,91321
75	105.750	120,00162	6,09817	78,34245	2,07000	39,34661	21,24255	19,11830	136,15660	14,04255	6,80851	53,18728	496,41465
80	109.800	121,32084	6,05002	81,30697	2,07000	40,33639	20,45902	18,41311	131,13443	13,52459	6,55738	52,94073	494,11347
85	113.850	123,79642	6,01905	84,50468	2,07000	41,32616	19,73123	17,75810	126,46957	13,04348	6,32411	52,92513	493,96793
90	117.900	127,42838	6,00526	87,96420	2,07000	42,31593	19,05344	17,14809	122,12519	12,59542	6,10687	53,13753	495,95031
95	121.950	132,21671	6,00865	91,71907	2,07000	43,30570	18,42066	16,57860	118,06937	12,17712	5,90406	53,57639	500,04635
100	126.000	138,16141	6,02923	95,80880	2,07000	44,29548	17,82857	16,04571	114,27429	11,78571	5,71429	54,24162	506,25510
105	130.050	145,26249	6,06698	100,28027	2,07000	45,28525	17,27336	15,54602	110,71557	11,41869	5,53633	55,13459	514,58954
110	134.100	153,51993	6,12191	105,18955	2,07000	46,27502	16,75168	15,07651	107,37181	11,07383	5,36913	56,25832	525,07768
115	138.150	162,93374	6,19403	110,60424	2,07000	47,26479	16,26059	14,63453	104,22410	10,74919	5,21173	57,61763	537,76456
120	142.200	173,50392	6,28332	116,60663	2,07000	48,25457	15,79747	14,21772	101,25570	10,44304	5,06329	59,21948	552,71514



COSTOS DE OPERACIÓN (\$/Km): **DEL USUARIO**
 VEHÍCULO: **CAMION PESADO**
 SUPERFICIE DE RODAMIENTO: **PAVIMENTO**

VELOCIDAD (Km/h)	RECORRIDO (Km/año)	COMBUSTIBLE (\$/Km)	LUBRICANTES (\$/Km)	CUBIERTAS (\$/Km)	LAVADO (\$/Km)	MANTENIMIENTO (\$/Km)	AMORTIZACIÓN (\$/Km)	INTERESES (\$/Km)	SALARIOS (\$/Km)	SEGUROS (\$/Km)	IMPUESTOS PATENTES (\$/Km)	GASTOS GENERALES (\$/Km)	COSTO DEL VEHÍCULO (\$/Km)
5	54.500	155,62102	7,63685	20,66697	1,55250	12,46376	41,21835	37,09651	264,19376	27,24771	13,21101	69,70901	650,61744
10	59.000	145,77779	7,37201	21,82582	1,55250	13,29353	38,07458	34,26712	244,04339	25,16949	12,20339	65,22955	608,80917
15	63.500	136,59551	7,12292	23,06009	1,55250	14,13490	35,37638	31,83874	226,74898	23,38583	11,33858	61,33853	572,49296
20	68.000	128,07417	6,88960	24,37277	1,55250	14,98787	33,03529	29,73176	211,74353	21,83824	10,58824	57,93768	540,75164
25	72.500	120,21377	6,67205	25,76615	1,55250	15,85243	30,98483	27,88634	198,60083	20,48276	9,93103	54,95312	512,89581
30	77.000	113,01430	6,47025	27,24158	1,55250	16,72860	29,17403	26,25662	186,99429	19,28571	9,35065	52,32822	488,39676
35	81.500	106,47578	6,28422	28,79907	1,55250	17,61637	27,56319	24,80687	176,66945	18,22086	8,83436	50,01872	466,84138
40	86.000	100,59819	6,11395	30,43689	1,55250	18,51574	26,12093	23,50884	167,42512	17,26744	8,37209	47,98940	447,90109
45	90.500	95,38154	5,95944	32,15107	1,55250	19,42671	24,82210	22,33989	159,10011	16,40884	7,95580	46,21176	431,30977
50	95.000	90,82584	5,82070	33,93485	1,55250	20,34928	23,64632	21,28168	151,56379	15,63158	7,57895	44,66226	416,84774
55	99.500	86,93107	5,69771	35,77809	1,55250	21,28345	22,57688	20,31920	144,70915	14,92462	7,23618	43,32106	404,32992
60	104.000	83,69724	5,59049	37,66667	1,55250	22,22923	21,60000	19,44000	138,44769	14,27885	6,92308	42,17109	393,59683
65	108.500	81,12435	5,49904	39,58194	1,55250	23,18660	20,70415	18,63373	132,70562	13,68664	6,63594	41,19726	384,50776
70	113.000	79,21240	5,42334	41,50032	1,55250	24,15557	19,87965	17,89168	127,42088	13,14159	6,37168	40,38595	376,93557
75	117.500	77,96139	5,36341	43,39314	1,55250	25,13614	19,11830	17,20647	122,54094	12,63830	6,12766	39,72459	370,76282
80	122.000	77,37131	5,31924	45,22675	1,55250	26,12831	18,41311	16,57180	118,02098	12,17213	5,90164	39,20133	365,87912
85	126.500	77,44218	5,29083	46,96320	1,55250	27,13208	17,75810	15,98229	113,82261	11,73913	5,69170	38,80496	362,17958
90	131.000	78,17399	5,27819	48,56137	1,55250	28,14745	17,14809	15,43328	109,91267	11,33588	5,49618	38,52475	359,56436
95	135.500	79,56673	5,28131	49,97875	1,55250	29,17443	16,57860	14,92074	106,26244	10,95941	5,31365	38,35063	357,93917
100	140.000	81,62041	5,30019	51,17373	1,55250	30,21300	16,04571	14,44114	102,84686	10,60714	5,14286	38,27323	357,21677
105	144.500	84,33504	5,33483	52,10824	1,55250	31,26317	15,54602	13,99142	99,64401	10,27682	4,98270	38,28417	357,31892
110	149.000	87,71060	5,38524	52,75058	1,55250	32,32494	15,07651	13,56886	96,63463	9,96644	4,83221	38,37630	358,17882
115	153.500	91,74710	5,45141	53,07793	1,55250	33,39832	14,63453	13,17107	93,80169	9,67427	4,69055	38,54392	359,74329
120	158.000	96,44454	5,53334	53,07833	1,55250	34,48329	14,21772	12,79595	91,13013	9,39873	4,55696	38,78298	361,97447



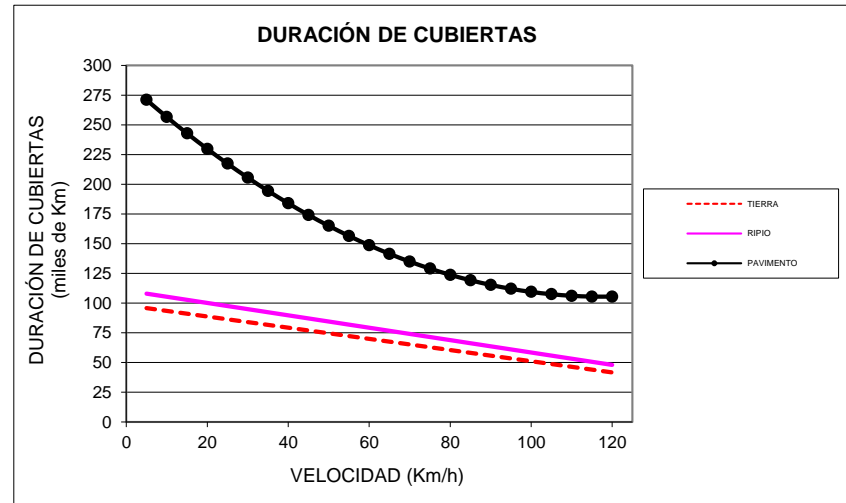
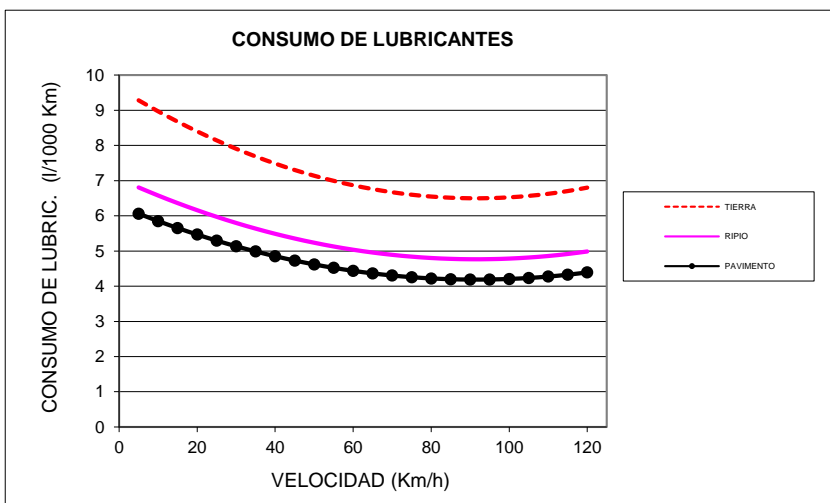
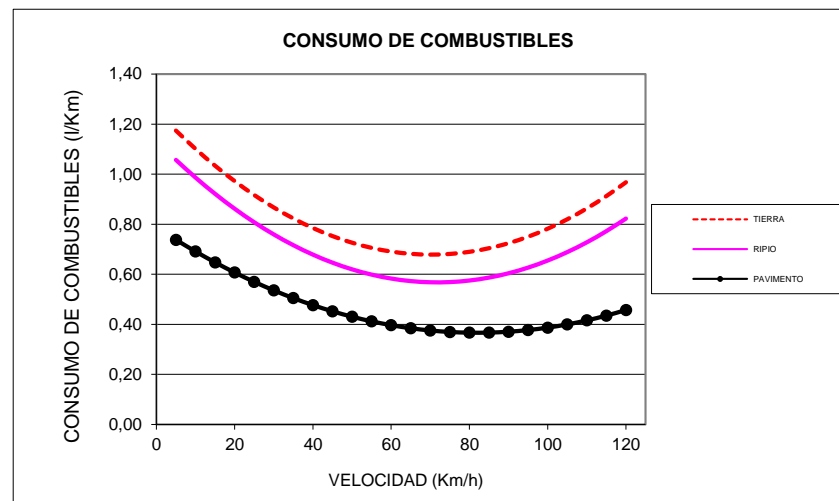
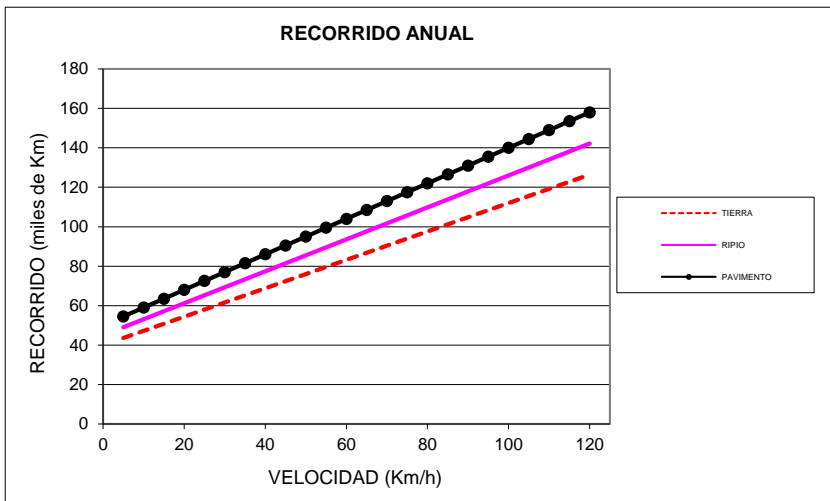
PLANILLA DE CONSUMOS
VEHÍCULO: CAMIÓN PESADO

VELOCIDAD (Km/h)	RECORRIDO ANUAL (Km)			CONSUMO DE COMBUSTIBLES (l/Km)			CONSUMO DE LUBRICANTES (l/1000 Km)			DURACIÓN DE CUBIERTAS (Km)			VELOCIDAD (Km/h)
	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	SUPERFICIE TIERRA	SUPERFICIE RIPIO	SUPERFICIE PAVIMENTO	
5	43.600	49.050	54.500	1,17421	1,05705	0,73783	9,28167	6,80655	6,06100	95.809	107.980	270.991	5
10	47.200	53.100	59.000	1,10113	0,98655	0,69116	8,96924	6,57744	5,85080	93.457	105.373	256.603	10
15	50.800	57.150	63.500	1,03388	0,92153	0,64762	8,67541	6,36196	5,65312	91.104	102.767	242.869	15
20	54.400	61.200	68.000	0,97246	0,86200	0,60722	8,40017	6,16012	5,46794	88.752	100.160	229.788	20
25	58.000	65.250	72.500	0,91687	0,80794	0,56995	8,14353	5,97192	5,29528	86.399	97.554	217.362	25
30	61.600	69.300	77.000	0,86710	0,75937	0,53582	7,90548	5,79735	5,13512	84.047	94.947	205.589	30
35	65.200	73.350	81.500	0,82316	0,71628	0,50482	7,68602	5,63641	4,98748	81.695	92.341	194.471	35
40	68.800	77.400	86.000	0,78505	0,67868	0,47695	7,48516	5,48912	4,85234	79.342	89.734	184.006	40
45	72.400	81.450	90.500	0,75276	0,64656	0,45222	7,30289	5,35545	4,72972	76.990	87.127	174.195	45
50	76.000	85.500	95.000	0,72630	0,61991	0,43062	7,13922	5,23543	4,61960	74.637	84.521	165.039	50
55	79.600	89.550	99.500	0,70567	0,59876	0,41216	6,99414	5,12903	4,52200	72.285	81.914	156.536	55
60	83.200	93.600	104.000	0,69086	0,58308	0,39682	6,86765	5,03628	4,43690	69.932	79.308	148.688	60
65	86.800	97.650	108.500	0,68188	0,57289	0,38463	6,75976	4,95715	4,36432	67.580	76.701	141.493	65
70	90.400	101.700	113.000	0,67872	0,56818	0,37556	6,67046	4,89167	4,30424	65.227	74.095	134.952	70
75	94.000	105.750	117.500	0,68140	0,56895	0,36963	6,59975	4,83982	4,25668	62.875	71.488	129.066	75
80	97.600	109.800	122.000	0,68990	0,57520	0,36683	6,54764	4,80160	4,22162	60.522	68.882	123.833	80
85	101.200	113.850	126.500	0,70422	0,58694	0,36717	6,51412	4,77702	4,19908	58.170	66.275	119.254	85
90	104.800	117.900	131.000	0,72437	0,60416	0,37064	6,49920	4,76608	4,18904	55.817	63.669	115.330	90
95	108.400	121.950	135.500	0,75035	0,62686	0,37724	6,50287	4,76877	4,19152	53.465	61.062	112.059	95
100	112.000	126.000	140.000	0,78216	0,65505	0,38698	6,52513	4,78510	4,20650	51.113	58.456	109.442	100
105	115.600	130.050	144.500	0,81979	0,68872	0,39985	6,56599	4,81506	4,23400	48.760	55.849	107.480	105
110	119.200	134.100	149.000	0,86325	0,72787	0,41585	6,62544	4,85866	4,27400	46.408	53.243	106.171	110
115	122.800	138.150	153.500	0,91254	0,77250	0,43499	6,70349	4,91589	4,32652	44.055	50.636	105.516	115
120	126.400	142.200	158.000	0,96765	0,82261	0,45726	6,80013	4,986764	4,39154	41.703	48.030	105.515	120



GRÁFICOS DE CONSUMOS

VEHÍCULO: CAMIÓN PESADO





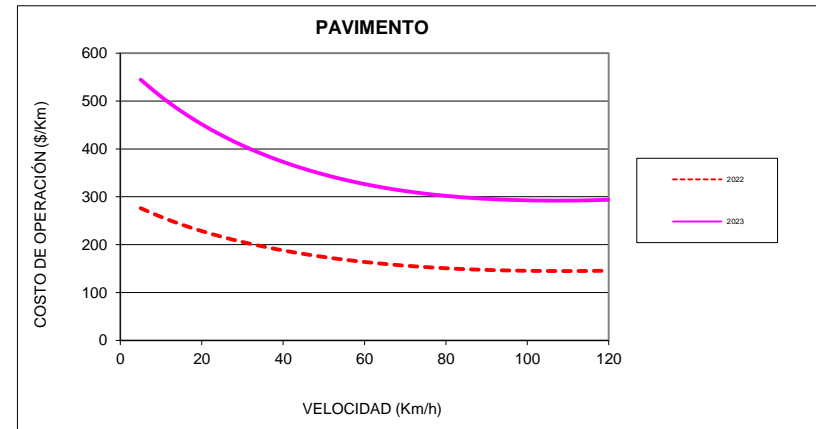
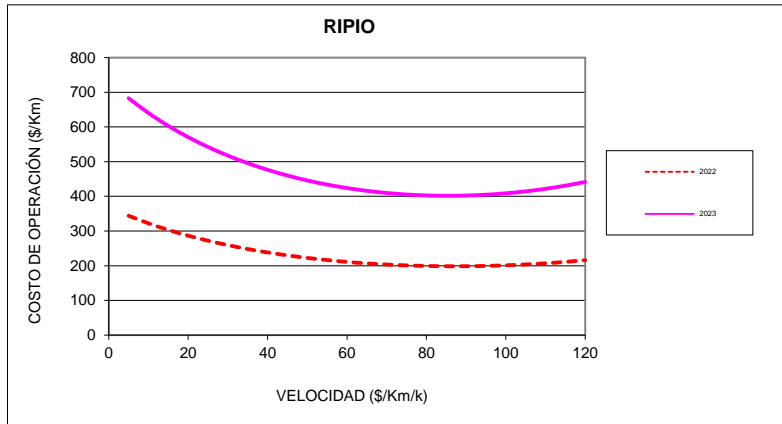
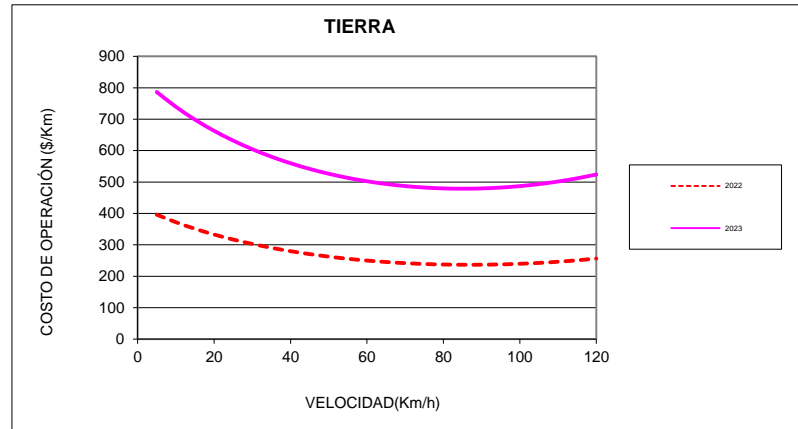
VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN (\$/Km): **DE LA COMUNIDAD**
 VEHÍCULO: **CAMIÓN PESADO**

VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	396,17195	786,60345	390,43149	0,98551	98,55	344,04195	682,83497	338,79302	0,98474	98,47	276,26197	544,79887	268,53690	0,97204	97,20	5
10	372,08864	739,53078	367,44213	0,98751	98,75	322,23425	640,18795	317,95369	0,98672	98,67	258,05546	509,26712	251,21167	0,97348	97,35	10
15	351,17931	698,67546	347,49615	0,98951	98,95	303,27168	603,11505	299,84337	0,98870	98,87	242,26589	478,46555	236,19966	0,97496	97,50	15
20	332,92455	663,02835	330,10380	0,99153	99,15	286,69241	570,71900	284,02658	0,99070	99,07	228,47703	451,58518	223,10815	0,97650	97,65	20
25	316,93476	631,83278	314,89802	0,99357	99,36	272,15003	542,32691	270,17688	0,99275	99,27	216,37601	428,01797	211,64197	0,97812	97,81	25
30	302,91234	604,51102	301,59869	0,99566	99,57	259,37982	517,42490	258,04509	0,99485	99,49	205,72291	407,29762	201,57471	0,97984	97,98	30
35	290,62636	580,61519	289,98882	0,99781	99,78	248,17637	495,61446	247,43810	0,99703	99,70	196,33043	389,05990	192,72947	0,98166	98,17	35
40	279,89534	559,79355	279,89821	1,00001	100,00	238,37813	476,58249	238,20437	0,99927	99,93	188,04975	373,01526	184,96551	0,98360	98,36	40
45	270,57501	541,76699	271,19198	1,00228	100,23	229,85666	460,08037	230,22371	1,00160	100,16	180,76068	358,92945	178,16877	0,98566	98,57	45
50	262,54977	526,31223	263,76246	1,00462	100,46	222,50892	445,90899	223,40007	1,00401	100,40	174,36439	346,60945	172,24506	0,98785	98,78	50
55	255,72633	513,24961	257,52328	1,00703	100,70	216,25167	433,90796	217,65629	1,00650	100,65	168,77812	335,89303	167,11491	0,99015	99,01	55
60	250,02916	502,43423	252,40507	1,00950	100,95	211,01741	423,94762	212,93020	1,00906	100,91	163,93122	326,64096	162,70974	0,99255	99,25	60
65	245,39706	493,74930	248,35224	1,01204	101,20	206,75130	415,92316	209,17186	1,01171	101,17	159,76205	318,73098	158,96893	0,99504	99,50	65
70	241,78061	487,10128	245,32067	1,01464	101,46	203,40888	409,75026	206,34138	1,01442	101,44	156,21569	312,05326	155,83757	0,99758	99,76	70
75	239,14030	482,41627	243,27597	1,01729	101,73	200,95441	405,36180	204,40739	1,01718	101,72	153,24224	306,50704	153,26480	1,00015	100,01	75
80	237,44511	479,63736	242,19224	1,01999	102,00	199,35957	402,70547	203,34590	1,02000	102,00	150,79556	301,99823	151,20267	1,00270	100,27	80
85	236,67156	478,72278	242,05122	1,02273	102,27	198,60257	401,74209	203,13952	1,02284	102,28	148,83250	298,43803	149,60553	1,00519	100,52	85
90	236,80299	479,64479	242,84180	1,02550	102,55	198,66750	402,44447	203,77697	1,02572	102,57	147,31258	295,74237	148,42979	1,00758	100,76	90
95	237,82927	482,38905	244,55978	1,02830	102,83	199,54399	404,79676	205,25277	1,02861	102,86	146,19800	293,83225	147,63425	1,00982	100,98	95
100	239,74665	486,95468	247,20803	1,03112	103,11	201,22702	408,79434	207,56733	1,03151	103,15	145,45403	292,63475	147,18072	1,01187	101,19	100
105	242,55799	493,35485	250,79686	1,03397	103,40	203,71700	414,44410	210,72710	1,03441	103,44	145,04963	292,08458	147,03495	1,01369	101,37	105
110	246,27323	501,61810	255,34487	1,03684	103,68	207,02012	421,76533	214,74521	1,03732	103,73	144,95821	292,12590	147,16769	1,01524	101,52	110
115	250,91032	511,79045	260,88013	1,03973	103,97	211,14892	430,79119	219,64227	1,04022	104,02	145,15831	292,71404	147,55573	1,01652	101,65	115
120	256,49658	523,93868	267,44210	1,04267	104,27	216,12327	441,57100	225,44773	1,04314	104,31	145,63415	293,81676	148,18261	1,01750	101,75	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: DE LA COMUNIDAD
VEHÍCULO: CAMIÓN PESADO





VARIACIÓN DE COSTOS
 COSTO DE OPERACIÓN: **DEL USUARIO**
 VEHÍCULO: **CAMIÓN PESADO**

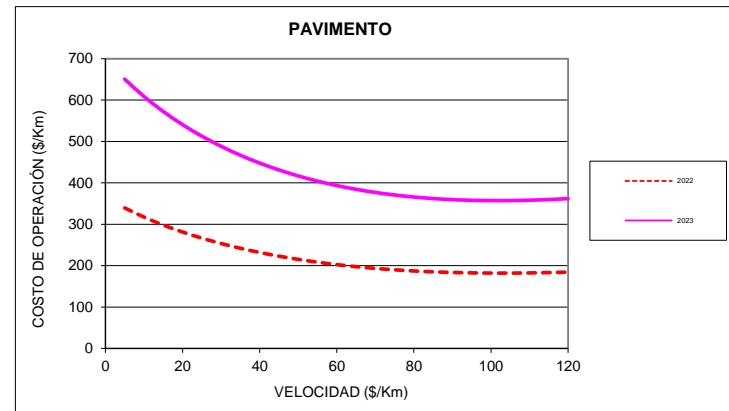
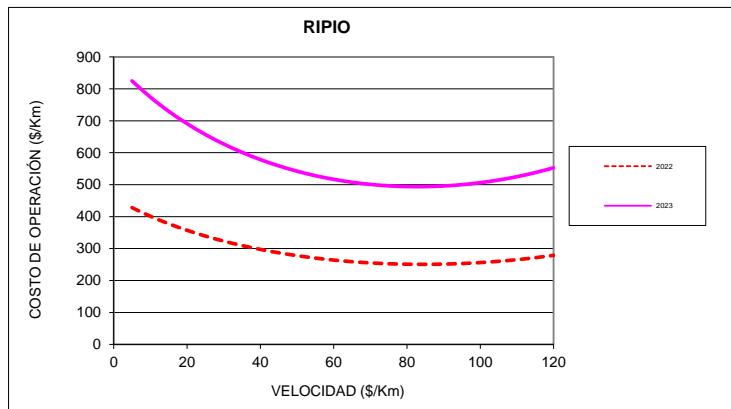
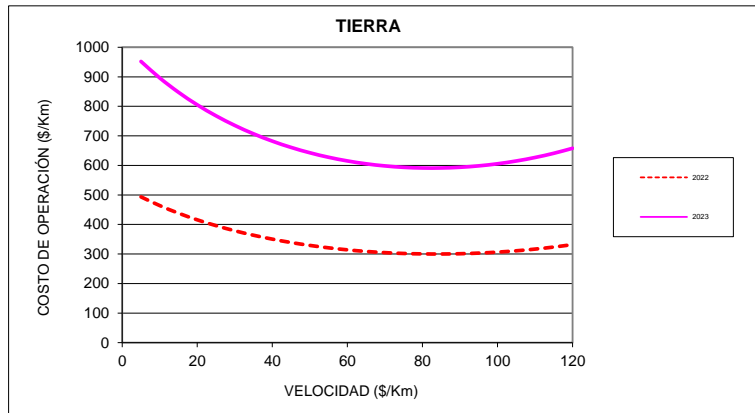
VELOCIDAD (Km/h)	TIPO DE SUPERFICIE DE RODAMIENTO: TIERRA					TIPO DE SUPERFICIE DE RODAMIENTO: RIPIO					TIPO DE SUPERFICIE DE RODAMIENTO: PAVIMENTO					VELOCIDAD (Km/h)
	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	COSTO OPERACIÓN 2022	COSTO OPERACIÓN 2023	DIFERENCIA	VARIACIÓN	VARIACIÓN %	
5	493,51382	952,02350	458,50968	0,92907	92,91	428,10077	824,85054	396,74977	0,92677	92,68	339,43762	650,61744	311,17982	0,91675	91,68	5
10	463,98212	896,13960	432,15748	0,93141	93,14	401,25261	774,06890	372,81629	0,92913	92,91	317,35872	608,80917	291,45045	0,91836	91,84	10
15	438,26381	847,53935	409,27555	0,93386	93,39	377,82915	729,82642	351,99726	0,93163	93,16	298,14965	572,49296	274,34331	0,92015	92,02	15
20	415,76047	805,07886	389,31840	0,93640	93,64	357,29833	691,10598	333,80766	0,93425	93,43	281,33077	540,75164	259,42087	0,92212	92,21	20
25	396,02331	767,90067	371,87736	0,93903	93,90	339,26105	657,14503	317,88398	0,93699	93,70	266,54155	512,89581	246,35426	0,92426	92,43	25
30	378,70962	735,35035	356,64074	0,94173	94,17	323,41247	627,36142	303,94895	0,93982	93,98	253,50552	488,39676	234,89124	0,92657	92,66	30
35	363,55356	706,92081	343,36725	0,94448	94,45	309,51612	601,30392	291,78781	0,94272	94,27	242,00678	466,84138	224,83460	0,92904	92,90	35
40	350,34632	682,21416	331,86784	0,94726	94,73	297,38610	578,61827	281,23217	0,94568	94,57	231,87375	447,90109	216,02734	0,93166	93,17	40
45	338,92206	660,91497	321,99291	0,95005	95,00	286,87472	559,02343	272,14871	0,94867	94,87	222,96770	431,30977	208,34207	0,93440	93,44	45
50	329,14801	642,77128	313,62327	0,95283	95,28	277,86362	542,29467	264,43105	0,95166	95,17	215,17446	416,84774	201,67328	0,93725	93,73	50
55	320,91718	627,58079	306,66361	0,95558	95,56	270,25732	528,25127	257,99395	0,95462	95,46	208,39824	404,32992	195,93168	0,94018	94,02	55
60	314,14313	615,18080	301,03766	0,95828	95,83	263,97850	516,74753	252,76903	0,95754	95,75	202,55699	393,59683	191,03984	0,94314	94,31	60
65	308,75604	605,44074	296,68470	0,96090	96,09	258,96454	507,66613	248,70160	0,96037	96,04	197,57892	384,50776	186,92884	0,94610	94,61	65
70	304,69972	598,25667	293,55694	0,96343	96,34	255,16485	500,91321	245,74835	0,96310	96,31	193,39977	376,93557	183,53580	0,94900	94,90	70
75	301,92958	593,54724	291,61766	0,96585	96,58	252,53900	496,41465	243,87564	0,96569	96,57	189,96084	370,76282	180,80198	0,95179	95,18	75
80	300,41092	591,25076	290,83984	0,96814	96,81	251,05522	494,11347	243,05825	0,96815	96,81	187,20756	365,87912	178,67156	0,95440	95,44	80
85	300,11791	591,32319	291,20528	0,97030	97,03	250,68938	493,96793	243,27854	0,97044	97,04	185,08867	362,17958	177,09092	0,95679	95,68	85
90	301,03283	593,73694	292,70411	0,97233	97,23	251,42435	495,95031	244,52596	0,97256	97,26	183,55579	359,56436	176,00856	0,95888	95,89	90
95	303,14568	598,48033	295,33464	0,97423	97,42	253,24953	500,04635	246,79682	0,97452	97,45	182,56364	357,93917	175,37553	0,96063	96,06	95
100	306,45417	605,55774	299,10357	0,97601	97,60	256,16075	506,25510	250,09436	0,97632	97,63	182,07047	357,21677	175,14630	0,96197	96,20	100
105	310,96398	614,99058	304,02660	0,97769	97,77	260,16040	514,58954	254,42914	0,97797	97,80	182,03896	357,31892	175,27996	0,96287	96,29	105
110	316,68950	626,81895	310,12946	0,97929	97,93	265,25792	525,07768	259,81976	0,97950	97,95	182,43715	358,17882	175,74167	0,96330	96,33	110
115	323,65491	641,10450	317,44958	0,98083	98,08	271,47053	537,76456	266,29403	0,98093	98,09	183,23936	359,74329	176,50393	0,96324	96,32	115
120	331,89603	657,93447	326,03844	0,98235	98,24	278,82452	552,71514	273,89062	0,98230	98,23	184,42693	361,97447	177,54754	0,96270	96,27	120



GRÁFICOS DE VARIACIÓN DE COSTOS

COSTO DE OPERACIÓN: **DEL USUARIO**

VEHÍCULO: **CAMIÓN PESADO**





República Argentina - Poder Ejecutivo Nacional
1983/2023 - 40 AÑOS DE DEMOCRACIA

Hoja Adicional de Firmas
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