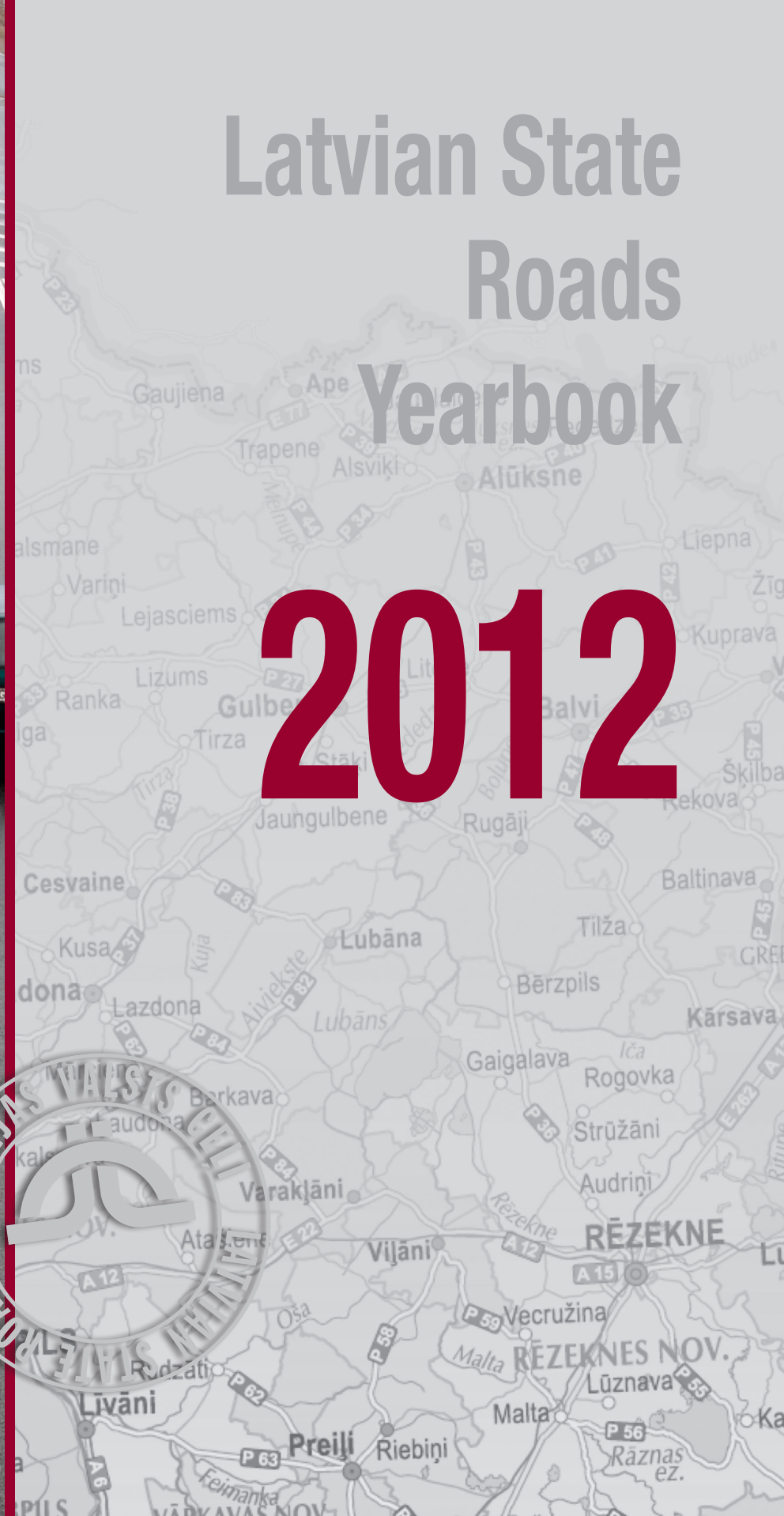




Latvian State Roads Yearbook

2012



Latvian State Roads Yearbook

2012



CONTENT

STATE ROAD NETWORK

4

ROAD TRAFFIC

8

ROAD FINANCING

18

RESULTS ACHIEVED

22

INTRODUCTION

In 2012, road sector was still influenced by the economic crisis and related mitigation processes. Consolidation of the national budget continued, and it included significant reductions of budget expenditures. There were practically no state budget investments in the road sector. Construction and reconstruction works were financed by the EU Cohesion Fund and ERDF. Although in general the economic recession was replaced by development in 2012, GDP index was still by 12 % lower in comparison with the level of 2007.

In 2012, State Joint Stock Company *Latvian State Roads* ensured management of 20 115 kilometres of state roads. Although financing for the state roads was insufficient, safe traffic on roads was provided by performing fewer of less important road works, such as carriageway marking, renewal of information signs, ensuring of lateral visibility and road treatment.

The year 2012 was rich in discussions on the shortage of financial means, constantly growing deficit of road maintenance and repair works, and renewal of the road fund. The Ministry of Transport submitted an informative report *On financing model for state roads* to the Cabinet of Ministers. Report stated that, as a result of extended insufficient financing for state and municipality roads and streets, the state and municipalities may no longer maintain the road network in condition adequate for safe and convenient traffic. Therefore, it is necessary to develop a new financing model for roads that would provide consistent and predictable financial means for this significant sector. Informative MoT report suggests to link the planned roads financing to road user payments by defining that financing, allocated to the state budget programme *The State Road Fund* annually, shall not be smaller than the planned state budget revenues from vehicle tax and a specific portion of state budget revenues from excise tax for oil products: in 2014 – 20 %, in 2015 – 30 %, in 2016 – 40 %, in 2017 – 50 %, in 2018 – 60 %, in 2019 – 70 % and in 2020 and henceforward – 80 %. In 2012, state roads received financing that corresponds only to 19 % from the revenues of excise tax for oil products, not including road user payments of vehicle tax. Future road financing linked to road user payments would ensure purposeful reconstruction of the state roads by renovating collapsed roads or roads in poor condition, and it would also provide sufficient subsidies for municipal roads and streets. In general, the Cabinet of Ministers took note of the submitted report and decided to review the question of further financing model for state roads within the preparation of draft state budget 2014. Therefore it may be concluded that discussions about road sector financing are not over. They will continue until a financing model adequate to the state road condition will be adopted. Meanwhile roads continue to deteriorate faster than they are being renovated. During the last years road financing from the state budget was channelled mostly to routine maintenance works. Hardly anything was assigned to periodic maintenance and reconstruction of the state road network. Total deficit of works on state roads with bituminous pavement has reached 2.859 billion Lats, on gravel roads – 1.663 billion Lats. Due to repair works postponed for too long the level of damage has increased so far that it is impossible to renovate roads with inexpensive technologies. The client has to choose considerably more expensive methods of road renovation including even reconstruction of the whole pavement structure. It has to be taken into consideration that road sections in poor and very poor condition generate additional expenses for road users and national economy. To improve driving efficiency, safety and comfort the renovation and reconstruction of the current infrastructure is set as the first priority in planning road maintenance and development. According to calculations of the SJSC *Latvian State Roads*, the minimal financing for state road maintenance and renovation from all possible sources shall be at least 300 million Lats a year to stop further deterioration of the state road network.

In 2012, significant changes took place in the field of communication with society. Public was informed about driving conditions, traffic restrictions or disturbances in the state road network. In 2012, LSR homepage was fully renewed both technologically, and structurally. The most significant real-time traffic information (driving conditions in winter, construction sites and data of road monitoring systems) is displayed in an interactive map. It allows road users to access the information for specific driving routes easily.

STATE ROAD NETWORK

2012

Latvian State
Roads Yearbook



General information

Territory of Latvia – 64 589 km².

Population as at December 31, 2012 – 2 028 400.

Total length of roads and streets – 72 215 km.

Average road network density – 1.118 km per 1 km².

The total length of roads under the supervision of SJSC “Latvian State Roads” – 20 115 km.

Average state road network density – 0.311 km per 1 km².

SJSC “Latvian state roads” is responsible for 943 bridges, out of which 880 are made of reinforced concrete, 14 – stone, 43 – steel and 6 – timber. The total length of all bridges is 30 484 metres.

Number of registered vehicles – 801 328,

out of which in appropriate technical condition – 644 272,
insured (MTPL) – 639 493.

Number of registered vehicles per 1000 inhabitants – 395.

Number of registered cars – 618 274,

out of which in appropriate technical condition – 524 445,
insured (MTPL) – 520 218.

Number of registered cars per 1000 inhabitants – 305.

Classification of roads

Classification of roads	Road length as at December 31, 2012, km			
	Bituminous pavement	Crushed stone and gravel pavement	Without pavement	Total
State roads:	8 563	11 552	-	20 115
Main roads (A)	1 669	-	-	1 669
Regional roads (P)	4 231	1 087	-	5 318
Local roads (V)	2 663	10 465	-	13 128
Municipal roads and streets:	5 713	32 745	-	38 458
Roads	1 096	29 364	-	30 460
Streets	4 617	3 381	-	7 998
Forest roads	-	6 216	3 926	10 142
Private roads	500	3 000	-	3 500
Total roads and streets	14 776	53 513	3 926	72 215

Map of state roads



ROAD TRAFFIC

2012

Latvian State
Roads Yearbook



TRAFFIC INFORMATION CENTRE

The work of LSR unit – Traffic Information Centre (TIC) – is oriented to support road users by informing the society about driving conditions, traffic restrictions or disturbances in the state road network and to coordinate work of road authorities. TIC performs the following tasks around the clock: it monitors traffic condition by using road monitoring systems, operates the hotline, summarizes and publishes traffic information in specific web pages and media, coordinates cooperation of emergency services for operative elimination of traffic disturbances and processes statistical data for LSR needs. Since 2012 TIC is also responsible for managing the road weather information system.

By consistently improving the public recognition of TIC the amount of road user requests on TIC hotline has increased significantly: in 2012 more than 4500 calls were received and it was for 21 % more than in 2011. More and more calls contain constructive messages from drivers related to further actions of road authorities in improving traffic conditions. Accordingly, fewer callers ask only for information. It means that information about current traffic situation and LSR services is easily accessible to users, including virtual environment. In 2012 modernization of TIC contact centre was finished, and it allowed to make significant improvements to hotline service – there is a new phone number with easy combination of digits: +371 80005555, it is free of charge for callers, two operators work simultaneously, etc.

In 2012, LSR home page www.lvceli.lv was fully renewed both technically and structurally. The most important real-time traffic information (driving conditions in winter, construction sites and data of road monitoring systems) are displayed in an interactive map. It allows users to easily access information for specific driving routes. As a result, a number of visitors to LSR home page has increased significantly. The work is still continuing to show more categories of traffic data on the map, to create maximally automatic map updates and to adjust the home page to be more user-friendly on touch-screen devices.

TIC is continuing to distribute traffic information and other notifications in social networks *Facebook* and *Twitter*. Popularity of these sites has increased, and the number of direct followers has reached 188 and 2463 respectively. It contributes to distribution of traffic information in the media. In 2012, practise of placing the most important traffic announcements in LSR banners in the most popular news portals in the country continued. Banners also provide a direct link to the LSR home page.

Road weather information system, used by TIC, includes 53 road weather stations located by the state main roads. They are equipped with road and atmospheric sensors, as well as, cameras and IT infrastructure that processes station data for further use. To provide more precise information on precipitation and receive data on visibility, additional 9 road weather stations have been equipped with new type of visibility sensors, and now there are 43 such stations. Further development is being planned by focusing on improvement of quality of system data and maximally efficient use by expanding a network of road weather stations, as well as, implementing additional sensors and prediction models.

In 2012, road lighting management system *Citylight* was fully developed and started to work, initially including 80 objects in the state central region. Within the project, special controllers were installed that individually adjusted lighting mode according to sunlight cycle and transferred data to the central system. Experience of using this system for half a year allows to conclude that electricity consumption has decreased by 10 % on average, varied lighting programmes and remote control have been provided and maintenance quality of lighting system has improved. In future, it is planned to connect it to other lighting systems on state roads.

TRAFFIC COUNTING

The following technical parameters are measured by Parametre Measurement Department of the Road Laboratory of LSR in order to estimate the technical condition of state roads:

- traffic registration;
- road surface evenness;
- road surface rut depth;
- road surface skid resistance;
- road surface bearing capacity;
- soil penetration measurements and
- road visual inspection.

Regularity in gathering the technical data would be necessary to enable objective assessment and comparison of the condition of entire state road network but it depends from financial and technical possibilities. Considering these restrictions, most of the planned measurements are performed on state main and regional roads. On local roads measurements are performed in cases of necessity and within the framework of quality testing of construction works.

TRAFFIC DATA

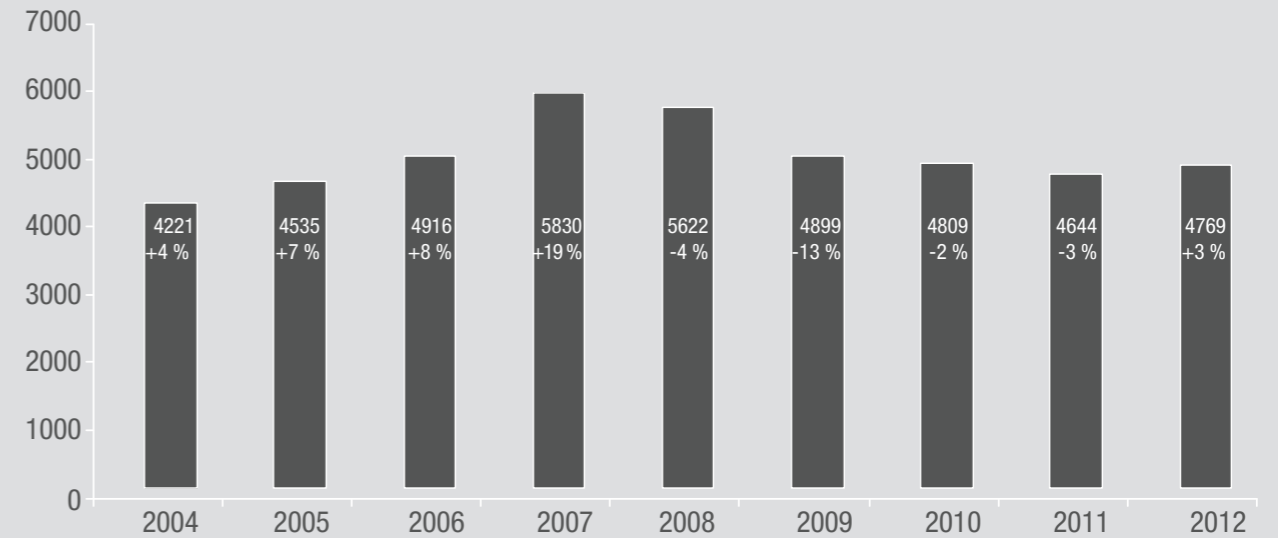
Traffic counting is performed with various devices and in different regularity. State main roads are equipped with stationary traffic counting points some of which perform automatic data transmission and service. Stationary traffic counting devices are located on roads of regional importance, as well as, high intensity local roads and they perform periodical registration. In other road sections mobile counting devices are used and visual counting method is applied.

Average annual daily traffic intensity



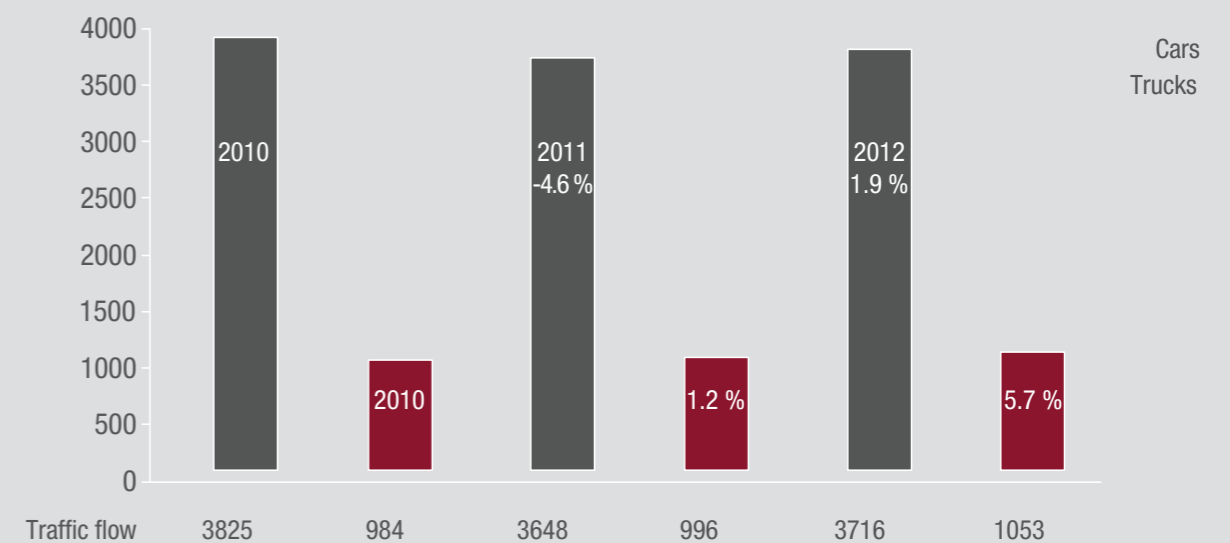
Changes in average daily traffic on state main roads

Summarized traffic counting data for 2012 shows that growth of total traffic flow is resuming contrary to decrease in the previous years.



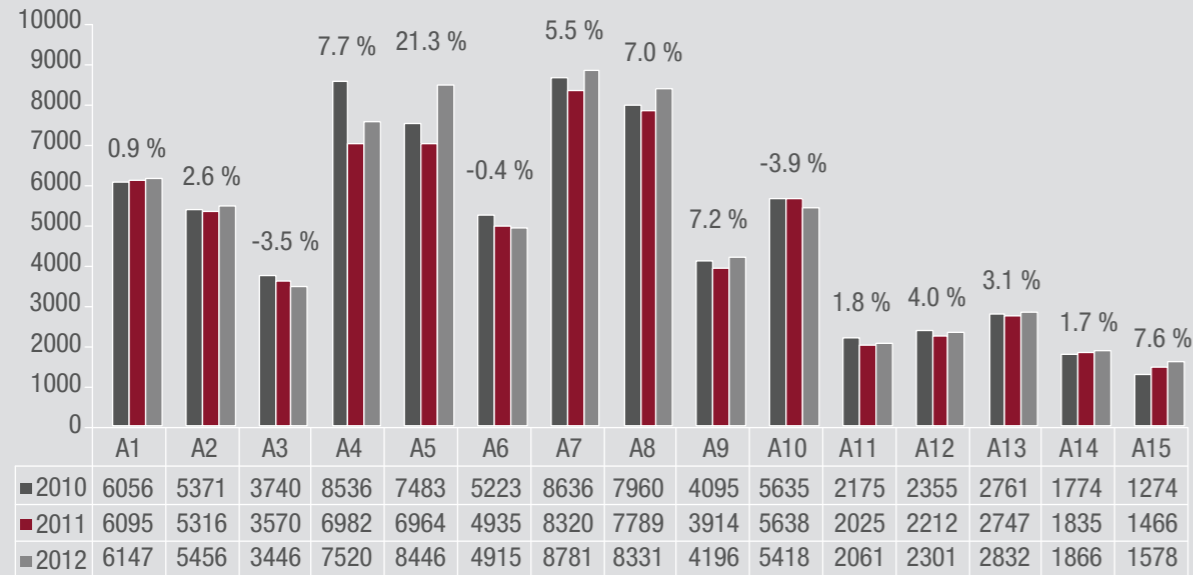
Contrary to 2011, when increase was only in the group of heavy transport, in 2012 car traffic also shows an increase by 1.9 %. Truck traffic has increased by 5.7 %.

Changes in car and truck traffic on state main roads

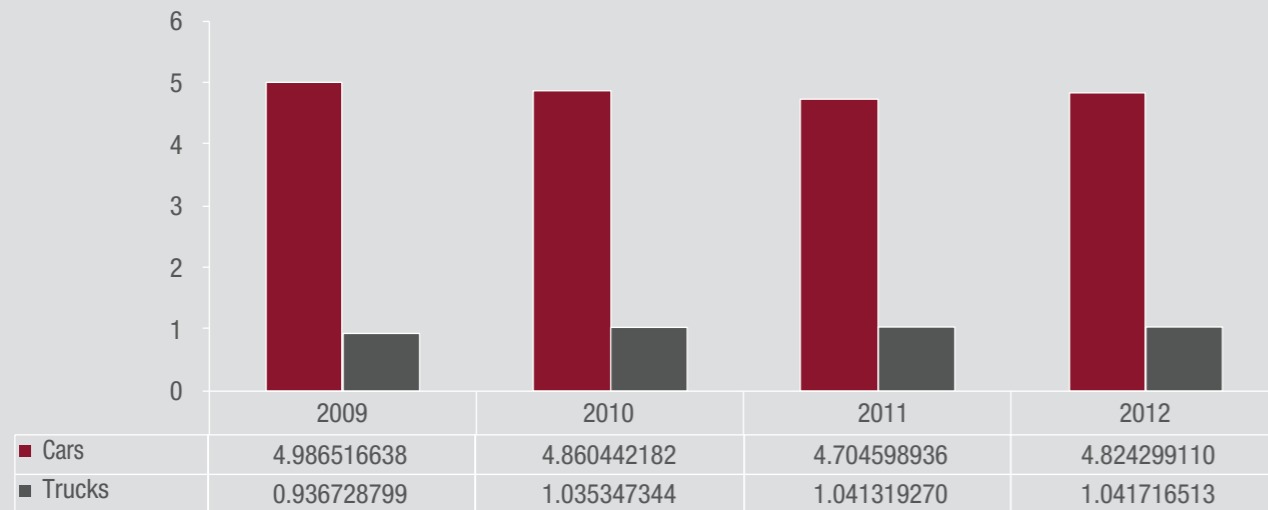


When evaluating state main roads separately, the most loaded road still remains A7 Riga – Bauska – Lithuanian border (Grenctāle). The highest decrease in traffic intensity is observed on road A10 Rīga – Venstpils and it might be related to reconstruction works.

Changes in average daily traffic on state main roads

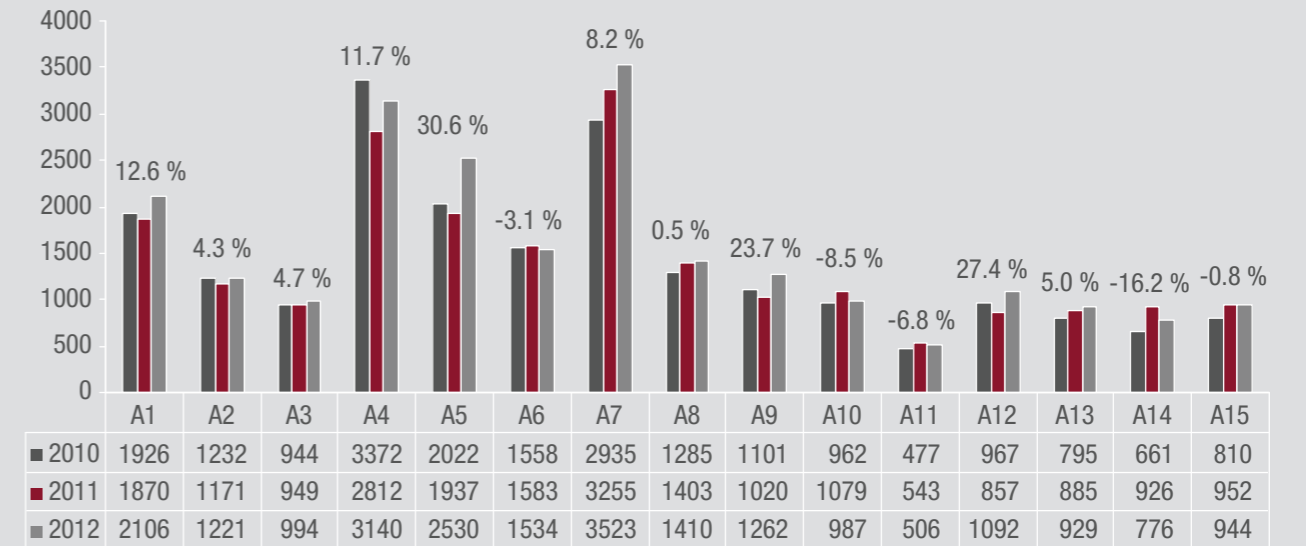


Vehicle mileage on state roads, billion km



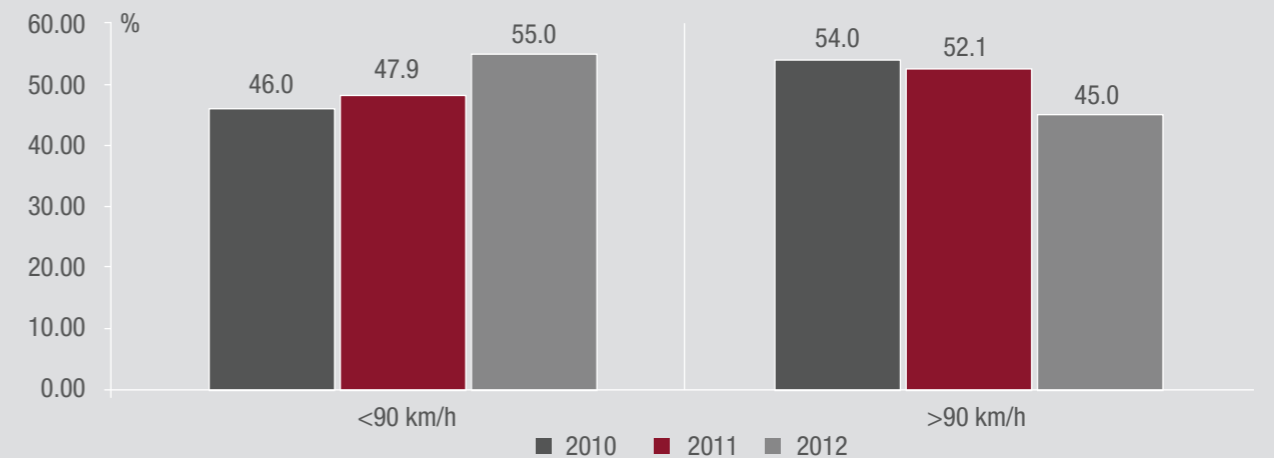
E10 changes within state main road network

Road loading may be also characterised by traffic flow expressed in equivalent 10 tonne axle loads or E10. Traditionally the most loaded roads are the transit roads. The highest increase is observed on road A4 Riga bypass (Baltezers – Saulkalne), but the highest numerical value – on road A7 Riga – Bauska – Lithuanian border (Grenctāle).



Changes in vehicle speed

Vehicle speed is another important parameter in traffic counting process. When analysing the speed of total traffic flow, tendency of the previous years may be observed – the number of drivers who exceed 90 km/h speed limit decreases.



RESULTS OF VISUAL ASSESSMENT OF ROADS AND BRIDGES

In 2012, more than 27 % or 2 306 km of roads with bituminous pavement may be regarded as deteriorated and they need complete pavement reconstruction. In 2009, the respective value was 25 % or 2 069 km.

Technical condition of bituminous pavement, % of total length

Pavement condition	Main roads	Regional roads	Local roads	Total
Very good	16.1	6.5	7.1	8.6
Good	18.9	16.4	16.7	17.0
Satisfactory	18.7	23.4	30.9	24.7
Poor	24.9	20.9	23.1	22.4
Very poor	21.4	32.8	22.2	27.3

40.4 % or 4 633 km of gravel roads may be regarded as deteriorated and they need complete pavement reconstruction. In 2010, the respective value was 38 % or 4 551 km.

Technical condition of gravel roads, % of total length

Pavement condition	Regional roads	Local roads	Total
Good	14.9	9.2	9.8
Satisfactory	40.5	50.8	49.8
Poor	44.6	40.0	40.4

Technical condition of bridges

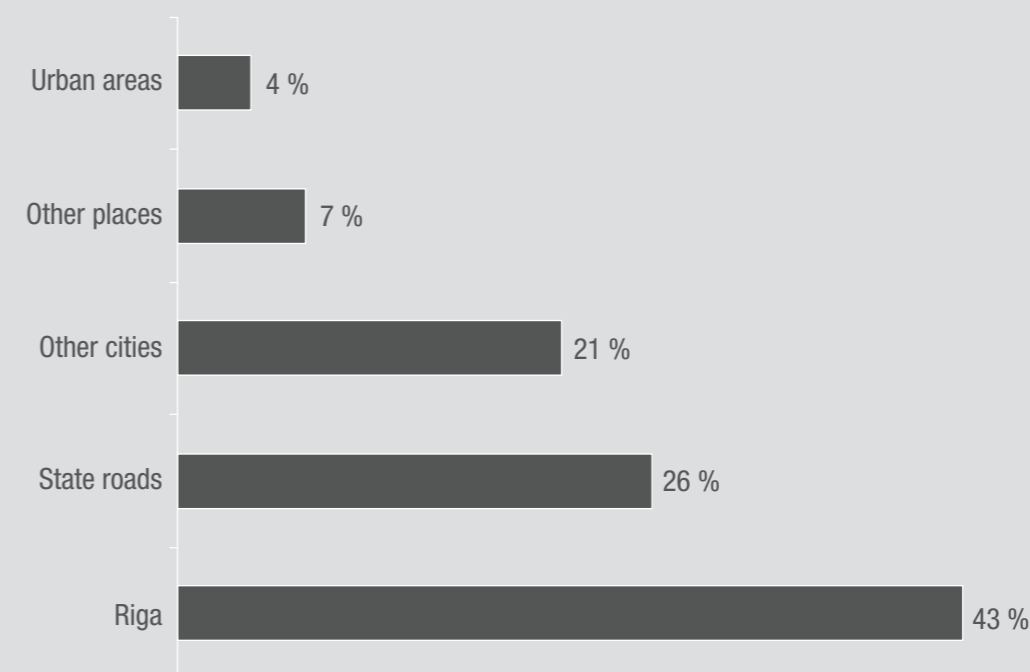
Technical condition	Bridge quantity	Including			% of total number
		Main roads	Regional roads	Local roads	
Good	191	59	85	47	20
Satisfactory	221	48	75	98	23
Poor	383	41	109	233	41
Very poor	148	27	51	70	16
Total	943	175	320	448	100

TRAFFIC ACCIDENTS

Registered road traffic accidents

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Registered road traffic accidents	39 593	45 555	48 912	47 353	52 102	61 383	54 323	35 058	38 343	35 181	34 668
Registered road traffic accidents with injured	5 083	5 379	5 081	4 466	4 302	4 781	4 196	3 160	3 193	3 386	3 358
Number of killed	518	493	516	442	407	419	316	254	218	179	177
Number of injured	6 300	6 639	6 416	5 600	5 404	6 088	5 408	3 930	4 023	4 224	4 179

Registered traffic accidents with injured/killed by accident location



In 2012 on state roads:

- 25.9 % of all road accidents with injured/killed were registered;
- 54.2 % of all killed were registered;
- 30.7 % of all injured were registered.

Registered road traffic accidents with injured/killed on state roads

Road	Road traffic accidents with injured/killed				Killed				Injured			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
A1	35	32	31	31	8	5	3	5	47	44	50	48
A2	40	41	33	40	9	3	1	5	58	56	45	51
A3	16	21	23	22	1	0	3	2	27	32	32	30
A4	14	15	9	11	3	1	2	1	20	33	16	40
A5	25	12	11	15	6	0	2	2	31	16	20	17
A6	51	52	46	49	10	14	8	3	75	69	67	70
A7	46	26	21	35	8	6	5	6	70	38	55	61
A8	27	20	22	26	3	5	2	3	40	18	27	32
A9	39	40	42	27	13	3	5	3	50	68	62	51
A10	42	33	35	46	3	5	5	5	67	55	58	63
A11	4	4	8	8	1	0	2	0	7	9	15	15
A12	34	35	28	36	2	8	5	6	56	52	33	56
A13	21	37	22	26	5	10	5	3	23	48	35	38
A14	1	0	4	1	0	0	1	1	2	0	4	5
A15	0	1	0	0	0	1	0	0	0	0	0	0
Total (A1–A15)	395	369	335	373	72	61	49	45	573	538	519	577
Total on regional roads	337	277	307	337	60	36	38	39	439	400	447	472
Total on local roads	266	201	191	160	38	28	17	12	372	290	270	232
Total	998	847	833	870	170	125	104	96	1384	1228	1236	1281

Main roads

- A1 - Riga (Baltezers) – Estonian border (Ainaži)
- A2 - Riga – Sigulda – Estonian border (Veclaicene)
- A3 - Inčukalns – Valmiera – Estonian border (Valka)
- A4 - Riga bypass (Baltezers – Saulkalne)
- A5 - Riga bypass (Salaspils – Babīte)
- A6 - Riga – Daugavpils – Krāslava – Byelorussian border (Pātarnieki)
- A7 - Riga – Bauska – Lithuanian border (Grenctāle)
- A8 - Riga – Jelgava – Lithuanian border (Meitene)
- A9 - Riga (Skulte) – Liepāja
- A10 - Riga – Ventspils
- A11 - Liepāja – Lithuanian border (Rucava)
- A12 - Jēkabpils – Rēzekne – Ludza – Russian border (Terehova)
- A13 - Russian border (Grebņeva) – Rēzekne – Daugavpils – Lithuanian border (Medumi)
- A14 - Daugavpils bypass (Kalkūni – Tilti)
- A15 - Rēzekne bypass

ROAD FINANCING

2012

Latvian State
Roads Yearbook



FINANCING OF STATE ROAD PROGRAMME, MILLION LATS

	2003	2004	2005	2006	2007	2008	2009	2010	2011*	2012*	2013**
Financing from state consolidated budget	56.2	53.6	57.1	99.5	136.1	164.9	93.4	73.2	68.0	70.6	69.1
EU financed projects	8.9	23.2	84.6	86.7	74.7	69.8	35.4	32.0	83.5	87.5	88.2
Total	65.1	76.8	141.7	186.2	210.8	234.7	128.8	105.2	151.5	158.1	157.3

* Including financing from state budget for unforeseen cases. In 2011 – 6.3 million Lats, in 2012 – 2.9 million Lats.

** Plan for 2013 includes financing from state budget for unforeseen cases – 5.2 million Lats.

Subsidies to municipal roads (streets), million Lats

	2004	2005	2006	2007	2008	2009	2010	2011*	2012	2013**
	18.7	20.9	31.8	58.2	70.9	28.3	20.4	23.8	20.3	23.3

* Including financing from state budget for unforeseen cases 3.4 million Lats.

** Plan for 2013 includes financing from state budget for unforeseen cases – 5.0 million Lats.

Financing for one km of state roads from the state budget, Lats



STATE ROAD FINANCING IN 2012

No.	Programmes	Thousand Lats
1.	MAINTENANCE AND MANAGEMENT COSTS	62 382
1.1.	MAINTENANCE	56 136
1.1.1.	Routine maintenance:	55 216
1.1.1.1.	Routine maintenance works within state road network	39 933
1.1.1.2.	Maintenance of horizontal markings	2 726
1.1.1.3.	Surface treatment	6 126
1.1.1.4.	Renewal of gravel pavements	6 432
1.1.2.	Co-financing for routine maintenance of urban transit streets	832
1.1.3.	Co-financing for routine maintenance of roads over "Latvenergo" hydro – technical structures	23
1.1.5.	Maintenance of road weather stations	46
1.1.6.	Maintenance of Traffic Information Centre	10
1.1.7.	Maintenance of traffic counting system	10
1.2.	MANAGEMENT	6 246
1.2.1.	Management of road network	5 747
1.2.2.	Inventory of state roads	22
1.2.3.	Standardisation	15
1.2.4.	New technology research programme	35
1.2.5.	State road land management and registration in the Land Register	110
1.2.6.	Services in connection with land procurement	110
1.2.7.	State road studies and construction designs of 2009	133
1.2.8.	Bridge studies, testing, inspections	73
1.2.9.	Traffic safety studies	1
2.	CAPITAL INVESTMENTS	5 294
2.1.	ROADS	2 403
2.1.1.	State main roads	1 673
2.1.1.1.	Renewal of pavements on state main road	1 383
2.1.1.2.	Strengthening and reconstruction of pavements on state main road	291
2.1.2.	State regional roads	371
2.1.2.1.	Renewal of pavements on regional road	371
2.1.3.	State local roads	116
2.1.3.1.	Renewal of pavements on local road	116
2.1.4.	Preparation of road projects	243
2.1.4.2.	Road designs and construction designs	243
2.2.	BRIDGES	502
2.2.1.	Renewal and reconstruction of bridges, building of new bridges	453
2.2.1.1.	Renewal of bridges	310
2.2.1.2.	Reconstruction of bridges and building of new bridges	144

2.2.2.	Preparation of bridge designs	49
2.2.2.2.	Bridge construction designs	49
2.3.	TRAFFIC ORGANISATION AND TRAFFIC SAFETY	549
2.3.1.	Renewal of traffic organisation equipment	110
2.3.2.	Traffic safety improvements	286
2.3.3.	Preparation of traffic safety designs	7
2.3.4.	Development of weather condition forecast system on roads	60
2.3.5.	Development of technical equipment of Traffic Information Centre	48
2.3.6.	Development of traffic counting system	39
2.4.	OTHER INVESTMENTS	1 839
2.4.5.	Project management for EU co-financed projects	1 645
2.4.6.	Payments for land acquisition	25
2.4.7.	Illegible costs of EU co-financed projects	170
	Total	67 676

EU CO-FINANCING IN 2012

No.	Co-financing sources	Thousand Lats
1.	Road projects co-financed from the EU Cohesion Fund	57 619
2.	Projects of ERDF <i>Interreg</i> programme	1 001
3.	Implementation of ERDF co-financed programmes	28 857
	Total	87 485

RESULTS ACHIEVED

2012

Latvian State
Roads Yearbook



ROUTINE ROAD MAINTENANCE

In 2012, routine maintenance works were performed on 20 191 kilometres of state roads for 58.855 million Lats or for 8 % more than in 2011. The total length of roads is longer as it includes roads with dual carriageways, two level junctions (cloverleaf junctions) and exit ramps.

Expenditures for routine state road maintenance works, million Lats

Type of works	2007	2008	2009	2010	2011	2012
Road winter maintenance	11.718	18.032	17.783	20.830	14.241	19.675
Maintenance of bridges, interchanges and culverts	0.685	0.712	0.763	0.742	1.121	0.850
Traffic organisation	1.648	2.034	1.622	1.020	1.078	0.938
Pavement routine maintenance	19.891	21.149	18.956	16.182	16.971	20.278
Road treatment, inspection and other works	6.020	7.775	5.695	5.189	5.350	6.077
Road weather station maintenance	0.057	0.114	-	-	-	-
Bituminous pavement routine maintenance (surface treatment)	-	3.682	0.196	1.026	8.588	6.125
Horizontal marking maintenance	-	6.430	4.604	6.202	4.425	2.714
Gravel pavement maintenance	-	4.801	0.107	2.119	0.400	-
Programme management and work control	1.742	2.539	1.727	1.742	2.316	2.166
Elimination of ruts and depressions in bituminous pavements	0.956	-	-	-	-	-
Total:	42.717	67.267	51.453	55.052	54.490	58.823

In 2012, the main routine maintenance task was fulfilled – to ensure continuous traffic on state roads according to the Regulations No. 224 of March 9, 2010, of the Cabinet of Ministers “Regulations on state and municipal road routine maintenance requirements and implementation control” and in respect to maintenance classes approved by the Ministry of Transport. In 2012, the unit prices for state road routine maintenance works increased by 3.6 % in comparison with the level of 2011.

Winter maintenance requirements were similar in the winters of 2011/2012 and 2012/2013 but in 2012 state road routine maintenance works were performed for 5.434 million Lats more than in 2011. The winter in 2012/2013 started early, in the end of October. Precipitation with large amounts of snow was observed almost every day. In many places thick cover of snow formed, especially in Vidzeme, and it made road use and maintenance difficult. Winter of 2012/2013 had a lot of precipitation and changing weather conditions similar to winter of 2010/2011 but in fewer amounts than in the winter of 2011/2012.

The deficit for bridge periodical maintenance and repair works is still great. In 2012, to maintain bridges, interchanges and culverts only the most emergent routine maintenance works were performed for 0.850 million Lats and it is 0.271 million Lats less than in the previous year. Other works were postponed until the end of economic crisis.

In 2012, 0.938 million Lats were spent to ensure traffic organisation measures and it is for 0.140 million Lats less than in the previous year.

Road signs are still maliciously damaged and stolen. Equipment, especially guard rails, road signs and lightning posts, is damaged also in traffic accidents. In total, damages amounted up to 450 thousand Lats. 32 thousand Lats were reclaimed from insurance companies for the damages caused to road equipment.

In 2012, 20.278 million Lats were spent for pavement maintenance and it is 16 % more than in 2011.

8.380 million Lats were spent for the maintenance of bituminous pavements or 1.3 % less than in 2011. Repairs of deteriorated bituminous pavements were performed in the area of 479 thousand m² or for 17 % less than in 2011. The decrease in pothole repairs may be explained with more favourable weather conditions during winter and spring. Surface renewal was performed on state roads in emergency in the area of 607 thousand m² or in the length of 86.7 km and it is for 44 % more than in 2011.

For gravel road maintenance 12.240 million Lats or 39 % more than in 2011 were spent. Road grading was performed for 3.308 million Lats or 7 % less than in the previous year. Road pavement renewal was performed for 1.817 million Lats or 34 % less than in 2011, but for elimination of depressions, holes and sand pits 1.232 million Lats or 38 % less than in 2011 were spent.

In the conditions of insufficient financing, road treatment works were performed in the amount of 5.270 million Lats or for 13 % more than in 2011. Main works were performed in ditch cleaning and renewal, improvement of shoulders of bituminous pavement, cutting of grass, sprouts and bushes, as well as, improvement of road right-of-way. Most of the collection and utilisation of household garbage was performed on state main and regional roads of Riga district, as well as, on state main roads near borders.

State road routine maintenance works and costs in 2012

Maintenance works	Unit	Amount	Costs, Lats
Performed by JSC Latvijas autoceļu uzturētājs			
1. Winter maintenance of roads, bridges, interchanges, culverts, pedestrian and bicycle paths			19 675 218
Installation, removal and storage of direction markers	item	345	1 364
Road cleaning from snow and snow removal			9 535 924
Installation and dismantling of snow shields	m	-	-
De-icing			6 408 263
Culvert covering and de-icing or clearing	culvert	119	15 042
Road inspection in winter	km	147 895,40	116 565
Road operative treatment in winter	km	34 676.54	162 425
Winter service duty	hour	120 109	671 375
Maintenance of pedestrian and bicycle paths		1 912,11	6 493
Maintenance of roads according to maintenance class	LVL		2 353 442
Unforeseen works	LVL		1 345
2. Bridge, intersection, culvert and pedestrian tunnel maintenance			850 227
Bridge and interchange maintenance			174 769
Culvert and pedestrian tunnel maintenance			675 458

3. Traffic organisation			938 317
Maintenance of bus stops, pavilions and rest areas			168 706
Road sign maintenance			399 343
Maintenance of road markings	m ²	5 932.80	42 025
Signal post replacement, washing and installation of reflectors			74 851
Guard rail washing, replacement of damaged guard-rails, repairs of fallen guard-rails and installation of reflectors			156 867
Dismantling of concrete poles	item	160	1 093
Unforeseen works	LVL		41 909
4. Pavement maintenance			20 278 446
Bituminous pavement maintenance			8 037 637
Crack filling with bitumen emulsion or bitumen mastic	m	108187.00	103 513
Pothole repairs	m	478 273.50	6 181 228
Pavement cleaning			52 570
Repair of bleedings			2 901
Protection of humped sections			6 990
Renewal of pavement skid resistance	m ²	606 839.50	1 348 519
Indent repairs	t	2 051.78	169 118
Levelling by milling	m ²	10 789.70	31 764
Unbound pavement maintenance			12 240 809
Road grading		95 988.78	3 308 110
Pavement renewal	m ³	61 817.80	1 817 186
Road profiling		1 794.37	86 016
Indent and pothole repairs on gravel roads	m ³	54 372.10	1 124 232
Road levelling (dragging)	track km	94 723.55	757 388
Unforeseen surface dressing	m ²	80943	173 344
Unforeseen double surface dressing	m ²	312983	1 380 300
5. Road treatment			5 269 955
Elimination of scouring			283 574
Ditch cleaning, profile renewal and strengthening			1 168 794
Cleaning and maintenance of covered systems for rainwater drainage	reize	8	7 578
Shoulder grading, profiling and repairs			1 112 769
Bush clearing in ditches, slopes and road lanes, sprout cutting			893741
Grass cutting			723 404
Tending of greenery			431 152
Operative road treatment in summer	km	47 594.49	380 340
Treatment of road right-of-way	km	3 505.07	154 714
Treatment of household waste containers	m ³	2 599.92	104 433
Unforeseen works	LVL		9 456
6. Road inspection			365 310
Road inspection in summer	km	196 256.45	222 825

Operative traffic information co-ordination	hour	42 050	142 485
Total			47 377 473
Works of other contractors			
Maintenance of electric devices (traffic lights, lightning, etc.)			133 531
Electric power supply			172 854
Treatment of right-of-way and maintenance of waste containers and bio toilets			40 133
Maintenance of sewage pump stations			3 084
Maintenance of pavilions, rest areas, tunnels and pedestrian paths			3 886
Pavement maintenance			68 576
Installation of guard rails			17 800
Total			439 864
Programme management and work control			2 166 199
1.1.1.1. Programme in total			49 983 534
1.1.1.2. Bituminous pavement maintenance (surface treatment)			
Regional and local roads	km	242.21	6 125 000
1.1.1.3. Horizontal marking maintenance			
State roads with bituminous pavements	km	5750	2 714 000

Track km is equal to a kilometre of a road treated in the width of road maintenance machinery.

ROAD MAINTENANCE IN WINTER AND SUMMER

State road maintenance during winter 2011/2012

During winter 2011/2012, winter road maintenance was ensured in accordance with maintenance classes approved by the Regulations No. 01-03/165 of September 9, 2011, of the Ministry of Transport:

Maintenance class	Main roads, km	Regional roads, km	Local roads, km	Total, km
A	579	34	-	613
A1	1 157	901	58	2 116
B	-	2 066	417	2 483
C	-	2 308	10 556	12 864
D	-	9	2 138	2 148
Total, km	1 736	5 318	13 170	20 224

Maintenance classes of state main and regional roads in winter 2011/2012



State road maintenance during summer 2012

During summer 2012, road maintenance was ensured in accordance with maintenance classes approved by the Regulations No. 01-03/56 of the Ministry of Transport of February 28, 2012:

Maintenance class	Main roads, km	Regional roads, km	Local roads, km	Total, km
A	1 745	1 104	65	2 914
B	-	2 127	460	2 587
C	-	2 079	9 667	11 745
D	-	9	2 936	2 945
Total, km	1 745	5 319	13 128	20 191

Maintenance classes of state main and regional roads in winter 2012/2013



State road maintenance level during winter according to class

Maintenance class	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
A (km)	996	613	613	613	585
A1 (km)	2900	1995	2039	2 116	2 182
B (km)	1756	2499	2467	2 483	2 575
C (km)	12886	12334	12900	12 864	12 753
D (km)	1759	2838	2247	2 148	2 122
Total, km	20296	20279	20266	20 224	20 216

State road maintenance level during summer according to class

Maintenance class	2009	2010	2011	2012
A (km)	3 804	2 776	2 880	2 914
B (km)	2 094	2 531	2 449	2 587
C (km)	11 846	11 839	11 839	11 745
D (km)	2554	3 126	3 112	2 945
Total, km	20 298	20 272	20 244	20 191

State road maintenance during winter 2012/2013

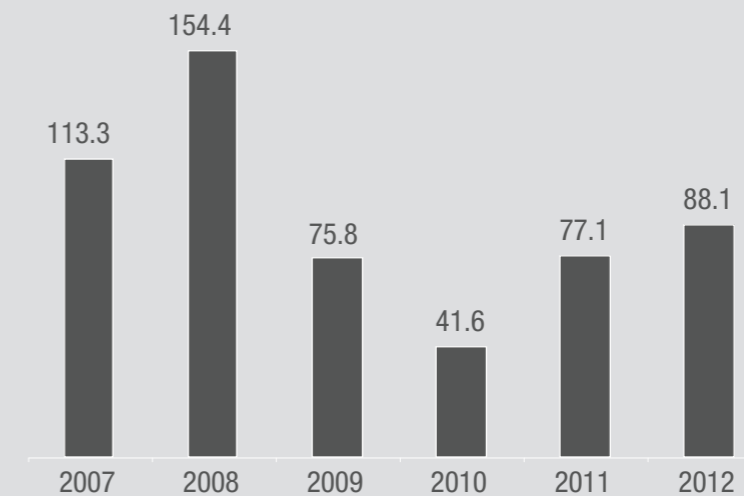
During winter 2012/2013, winter road maintenance was ensured in accordance with maintenance classes approved by the Regulations No. 01-63/172 of the Ministry of Transport of September 10, 2012:

Maintenance class	Main roads, km	Regional roads, km	Local roads, km	Total, km
A	563	21	-	585
A1	1 182	960	41	2 182
B	-	2 154	421	2 575
C	-	2 178	10 575	12 753
D	-	9	2 112	2 122
Total, km	1 745	5 322	13 149	20 216

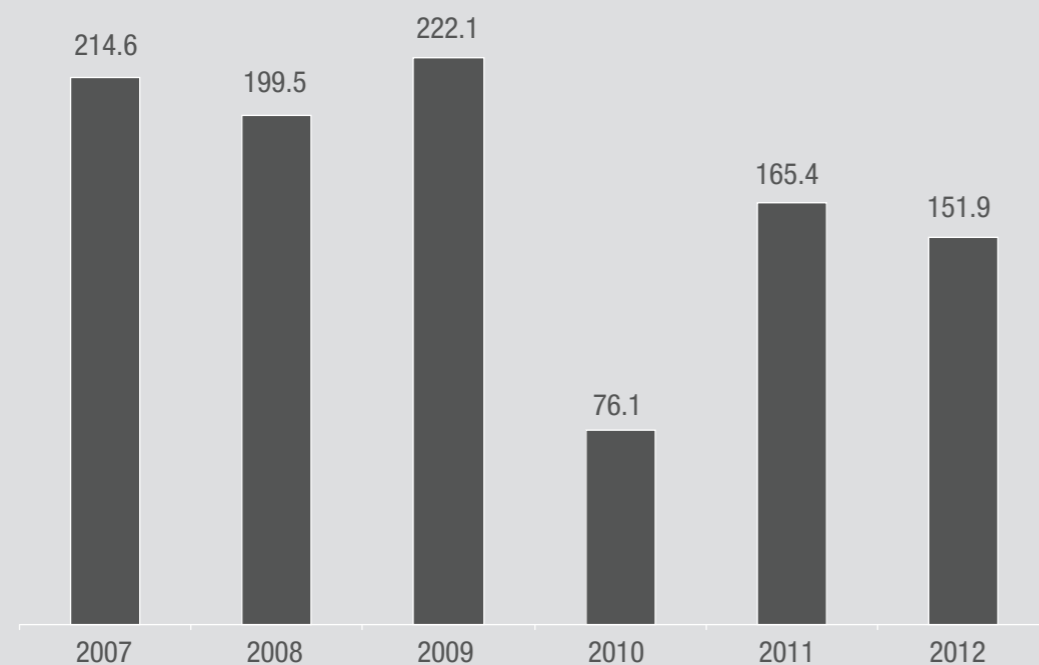
CONSTRUCTION WORKS

In 2012, the works on state roads were performed for 88.078 million Lats and bituminous pavements were reconstructed, renewed or built in the length of 151.93 km.

Construction works, million Lats



Renewal and construction of bituminous pavements, km



Accomplished construction works

Programme	Million Lats, incl. VAT	Number of projects	Projects
Cohesion Fund projects	57.618	15 projects	Construction works are completed in 7 projects in the total length of 75.94 km
ERDF projects	28.857	22 projects	Construction works are completed in 8 projects in the total length of 70.78 km
Pavement renewal of state main and regional roads	1.741	8.11 km	
Renewal of bridges	0.256	9 bridges	
Traffic safety improvements	0.144	2 projects	

In 2012, within the programme co-financed by EU Cohesion Fund:

construction works were completed in road E22 section Ludza – Terehova (Ploski – Zilupe bridge) from km 156.84 to km 162.00;

the following construction works were completed within the framework of the pavement strengthening programme:

- road A5 Riga bypass (Salaspils – Babīte), section from km 21.77 to km 35.50,
- road A7 Riga – Bauska – Lithuanian border (Grenctāle), section from km 9.46 to km 24.94,
- road A8 Riga – Jelgava – Lithuanian border (Meitene), section from km 18.93 to km 29.95,
- road A9 Riga (Skulte) – Liepāja, section from km 0.00 to km 9.90,
- road A10 Riga – Ventspils, section from km 23.84 to km 36.49, and
- road A10 Riga – Ventspils, section from km 126.52 to km 136.40.

The following construction works were completed within the framework of the programme *Improvement of state regional roads* with co-financing from ERDF:

- road P4 Riga – Ērgļi, section from km 45.00 to km 51.40,
- road P4 Riga – Ērgļi, section from km 61.63 to km 69.10,
- road P32 Līgatne – Skrīveri, section from km 36.54 to km 41.10,
- road P45 Viļaka – Kārsava, section from km 42.30 to km 49.50,
- road P69 Skrudaliena – Kaplava – Krāslava, section from km 10.93 to km 19.07,
- road P76 Aizkraukle – Jēkabpils, section from km 24.32 to km 33.45,
- road P78 Pļaviņas – Ērgļi, section from km 16.31 to km 28.80, and
- road P121 Tukums – Kuldīga, section from km 58.39 to km 70.88.

For surface dressing of bituminous pavements 6.5 million Lats from additional financing for unforeseen maintenance works were used and 242 km of state roads were renewed. The works were performed mainly on state regional and local roads in Latgale by renewing surface and improving driving conditions.

TRAFFIC ORGANIZATION

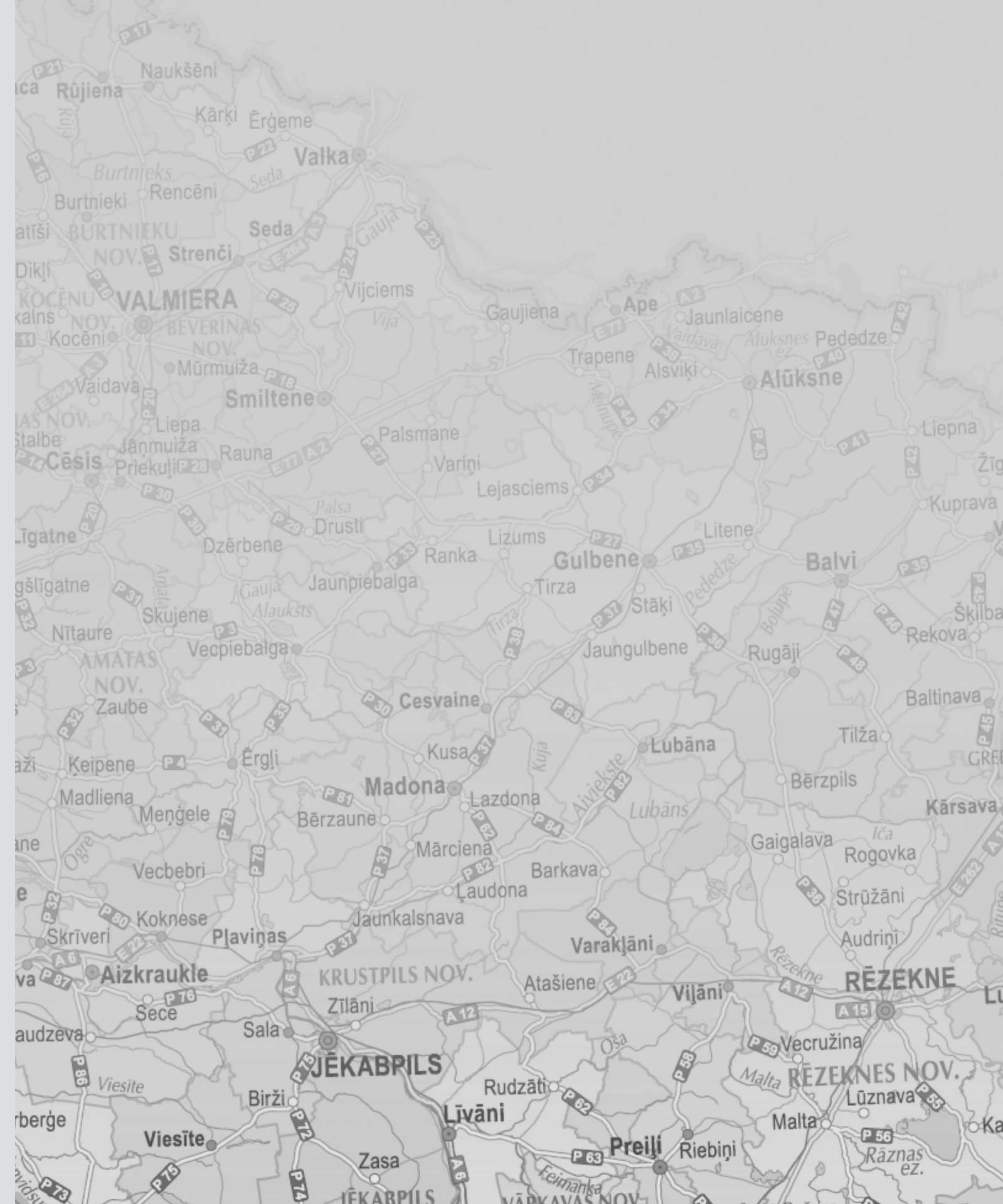
Traffic safety improvement projects

The following works started in 2011 were completed:

- Installation of pedestrian traffic lights on road A8 Rīga – Jelgava – Lithuanian border (Meitene) in intersection with the road to Olaine railway station at km 22.97;
- Installation of pedestrian traffic lights on road A3 Inčukalns – Valmiera – Estonian border (Valka) at km 72.2.

Summary of traffic organisation works

No.	Works	Unit	2010	2011	2012
1.	Traffic safety improvement projects	item/ thousand Lats	4/363	2/73	2/286
2.	Reconstructed intersections	item	1	-	-
3.	Eliminated “black spots”	item	1	-	1
4.	Constructed pedestrian and cycling paths	running m	2 753	3 230	1 401
5.	Constructed pedestrian crossings with traffic lights at grade	item	1	2	2
6.	Lightning installation	running m	1 120	3 543	5 026
7.	Painting of horizontal markings	m ²	765 847	723 979	395 065
8.	Axis line	m ²	426 506	405 034	224 303
	Edge line	m ²	285 750	266 158	147 126
	Manual painting	m ²	53 591	52 787	23 636
9.	Renewed road signs	item	237	2 523	754
10.	Installed guard-rails	running m	36 722	42 012	20 299
11.	Constructed pedestrian guard-rails	running m	2 241	674	348
12.	Installation of signal posts	item	332	4 637	2 985



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