



PILOT STUDY ON ENVIRONMENTAL TAXES IN LATVIA IN 2007

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Final Report

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Introduction

European efforts such as the Lisbon strategy clarifies that environmental tax is an important instrument not only for the protection of the environment, but also for competitiveness and growing economies. The concept of environmental taxes is defined within a harmonised statistical framework developed in 1997, jointly by Eurostat, the European Commission's Directorate General Environment and Directorate General Taxation and Customs Union, the Organisation of Economic Co-operation and Development (OECD) and the International Energy Agency (IEA).

Environmental taxes are defined as taxes tax base of which is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment. Environmental taxes are divided in four categories – energy taxes, transport taxes, pollution taxes and resource taxes.

Energy taxes include all taxes on energy products used for both transport and stationary purposes. Transport taxes include taxes related to the ownership and use of motor vehicles. Pollution taxes include taxes on measured and estimated emissions to air and water, on management of solid waste and on noise. Resource taxes include taxes on acquisition and use of natural resources. After detailed examination of different taxes in Latvia following taxes were found and allocated to corresponding environmental tax category:

- Excise tax for petroleum products,
- Electricity tax,
- Car and Motorcycle tax,
- Annual vehicle registration duty,
- Natural resource tax,
- Duty on fertilisers;

In 2007 energy taxes accounted for 84% of total environmental taxes, transport taxes comprised 13% and pollution and resource taxes shared the rest.

This pilot project on Environmental taxes in Latvia has been processed within the framework of the environmental accounting project “Grant Agreement No 71401.2007.014-2007.497– Environmental Statistics and Accounts-Environmental Taxes”, financially supported by Eurostat.

The objective of this project was to allocate all taxes and fees to their corresponding tax category and then to break the data down by industries.

Main data sources for compilation of environmental taxes in breakdown by industries are State Revenue Service data, State Budget data from the Treasury and CSB data on energy consumption.

Data compilation methodology

Energy taxes

Energy taxes comprise taxes on energy products used for both transport and stationary purposes. The most significant energy products for transport purposes are petrol and diesel fuel.

Energy taxes consist of two taxes: excise tax on petroleum products and electricity tax, which was introduced only on January 1, 2007.

According to data from State Revenue Service total sum of excise tax on oil products comprised LVL 267.96 mln. For the information on excise tax paid by industries we used data about the use of oil products by NACE as distribution key. Energy use data are available on different oil products (petrol, diesel fuel, petroleum gases, kerosene, fuel oil). Also for every type of oil product different consumption purposes (transport, production needs, heating, electricity production) are known. Amount of taxes paid for each oil product was broken down by industries (NACE) in proportion to the type of used oil product (Table1).

Table 1. Excise tax paid for different oil products (LVL)

	Petrol	Diesel fuel		Liquefied petroleum gases	Kerosene	Fuel oil
NACE			from which marked			
A B 01-05	1 707 563	6 227 262	111 563	45 854	2	442
C 10-14	82 448	1 112 301	8 036	425		
D 15-37	4 324 669	14 961 739	29 349	334 820	972	152 555
E 40-41	951 930	828 540	3 520	4 257		223 880
F 45	6 218 855	14 442 806	168 158	85 750		13 082
G 50-52	13 194 920	21 163 635	36 166	268 477	14 663	3 838
H 55	603 164	943 857	2 149	7 123		
I 60-64	3 781 931	69 879 187	86 818	67 262	9 216	17 491
J 65-67	618 825	280 106	927	355		
K 70-74	6 432 524	2 366 042	46 510	20 876		614
L 75	3 130 982	1 890 822	15 641	6 536		
M 80	331 768	253 920	1 025	950		
N 85	480 255	461 580	3 308	1 901		
O 90-93	1 162 339	3 201 756	40 999	30 950		
Households	62 169 407	21 251 556	34 784	1 659 867		
Total	105 191 581	159 265 109	588 952	2 535 403	24 853	411 903

Also different exemptions and reliefs according to the excise tax law were taken into account.

If compared to the revenues from excise tax on oil products electricity tax is very insignificant - only LVL 258 thsd. According to the law taxpayers are electricity suppliers to end users and autonomous producers except if these producers generate and consume electricity for their own needs. Electricity obtained from renewable energy resources, generated in hydroelectric power stations or cogeneration electric

stations are exempt from tax. Also electricity used for the following purposes is exempt from tax:

- 1) Electricity generation;
- 2) The generation of heat energy and electricity in cogeneration;
- 3) The carriage of goods and public carriage of passengers, including on rail transport and in public carriage of passengers in towns;
- 4) Household users.

Taking into account aforementioned all amount of electricity tax was allocated to NACE 40.

Transport taxes

This group of taxes mainly includes taxes related to the ownership and use of motor vehicles. In Latvia transport taxes are Car and Motorcycle tax and Vehicle annual duty.

Car and Motorcycle tax is paid for a car or motorcycle when it is registered in Latvia for the first time. Since 2007 the volume of taxes to be paid differs also according to engine volume of the cars.

The tax for cars is calculated summing the amounts acquired by applying the rate depending of the age of the car (counting from the year of first registration abroad) and the rate depending of the car engine volume.

Vehicle annual duty is paid for every vehicle registered or for first time registered in Latvia and is paid once a year. All enterprises and physical persons who own vehicles have to pay this duty. Tax rates are calculated according to the full mass of the vehicle and type of vehicle (passenger cars, buses, trucks etc.).

According to the State budget execution report total amount of paid transport taxes in 2007 comprised LVL 41.948 mln, from which paid Vehicle annual duty was 25.244 mln and Car and Motorcycle tax – LVL 16.704 mln.

In 2007 (Road Traffic Safety Directorate data at end of year) in Latvia there were registrated 1045107 road vehicles (lorries, buses and passenger cars), of which 837127 were privately owned. Though there is no information about detailed technical parameters of vehicles and no data on ownership of vehicles in breakdown by industries it is not possible to use tax rates for calculation. Because of this reason data on use of oil products (petrol, diesel fuel, bio- fuels) for transport in breakdown by NACE were used to disperse transport taxes by industries.

Pollution taxes

This group includes taxes on measured or estimated emission to air and water, management of solid waste.

Only one tax in Latvia meets the requirements of pollution tax - *Natural Resource Tax*. The purpose of the Natural Resources Tax is to promote economically efficient use of natural resources, restrict pollution of the environment, reduce manufacturing and sale of environment polluting substances, promote implementation of new, environment-friendly technologies, support sustainable development in the economy, as well as to ensure environment protection measures financially. Although, it is just one tax it consists of many taxable objects:

- Waste disposal and polluting emissions;
- The volume of greenhouse gases emitted by technological equipment not included in the amount of transferred emission quotas;
- Goods harmful to the environment (*goods for manufacturing or distribution, for which restrictions have been specified, or for waste management, for which particular requirements are specified, if they have or may have negative impact on the environment, life or health of human beings during the cycle of circulation thereof*);
- Packaging of goods and articles and disposable tableware and accessories;
- Radioactive substances;
- On first time vehicle registration.

Natural resource taxes for first vehicle registration is paid with purpose to reduce waste from vehicles and end-of life vehicles, facilitate reuse, recovery and recycling of the end-of life vehicles and to ensure the treatment and disposal of the end-of life vehicles. So even it is tax on vehicle, it was invented for reduction of waste and therefore is accounted as pollution tax and not transport tax.

Also there are a lot of exemptions for Natural resource tax. The taxes for packaging or disposable tableware and accessories, and for goods harmful to the environment doesn't have to be paid if:

- ✓ The fulfilment of the norms for used packaging or disposable tableware and accessories or of the wastes of goods harmful to the environment recovery is ensured;
- ✓ The used packaging or disposable tableware and accessories management system is established and applied;
- ✓ Taxpayer entered into an agreement with the packaging or disposable tableware and accessories manager regarding the participation in the used packaging or disposable tableware and accessories management system.

The tax for vehicles don't have to be paid if the manufacturer of the vehicle or authorised representative has established and applies an end-of-life vehicle management system and has entered into an agreement with the Ministry of Environment regarding the application of this system or participates in the operation of such system

Besides Natural resource tax there is also *duty on fertilisers*.

Information about Natural resource tax, which CSB receives from State Revenue Service, is available on every taxpayer (by enterprise registration number).

Total amount of revenues from Natural Resource Tax in 2007 was LVL 10.384 mln, from which 5.825 mln was pollution tax.

Duty on fertilisers is very small, only LVL 5755. Data about duty also were available from State Revenue service by every taxpayer.

Resource taxes

Resource taxes include taxes on acquisition and use of natural resources. In Latvia only part of natural resource tax corresponds to this definition.

Natural resource tax on any natural resource acquired as a result of economic activities, such as extraction of water, sand, dolomite, clay, fieldstones, peat and other materials.

For Resource taxes taxable objects are:

- ✓ Natural resources, as well as the collection of edible park snails (*Helix pomatia L.*) for further economic use;
- ✓ Use of the useful characteristics of subterranean depths, the pumping into geological structures of natural gas or greenhouse gases;

Information from State Revenue Service about part of the Natural resource tax on resource extraction is available on every taxpayer (by enterprise registration number). Total amount of revenues from resource tax in 2007 was LVL 4.559 mln.

Results

Total amount of paid environmental taxes in 2007 comprised LVL 320 mln, from which 84% were energy taxes, 13% transport taxes. (Fig.1)

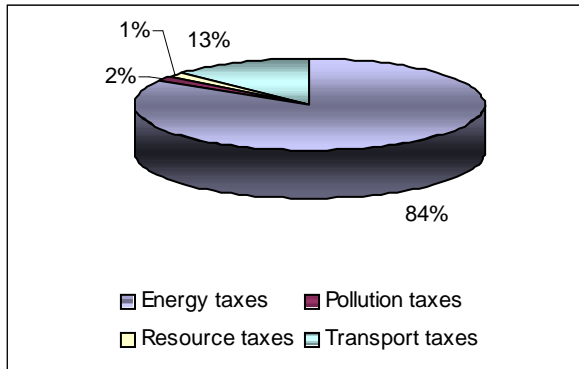


Fig.1 Structure of environmental taxes in 2007

Industry and service sector was main contributor for every environmental tax type (66% for energy taxes, 68% for transport taxes, 84% for pollution taxes and 94% for resource taxes). On average 82% of environmental taxes paid by industry and service sector (excluding public administration, education and households) were energy taxes (LVL 177 mln), transport taxes accounted for 13% (LVL 28 mln). For households energy taxes were also the most important type of environmental taxes paid, with a share of 87% in its total environmental tax paid (Fig.2).

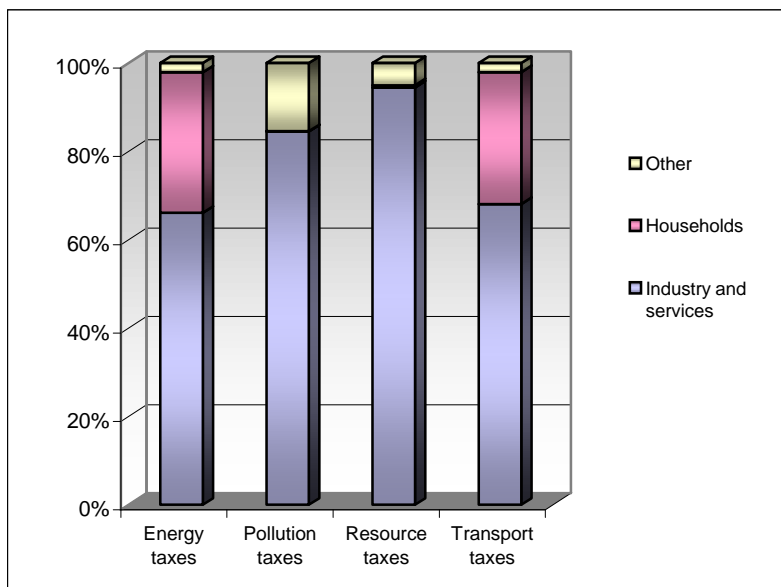


Fig.2 Structure of environmental taxes paid by households and industries in 2007

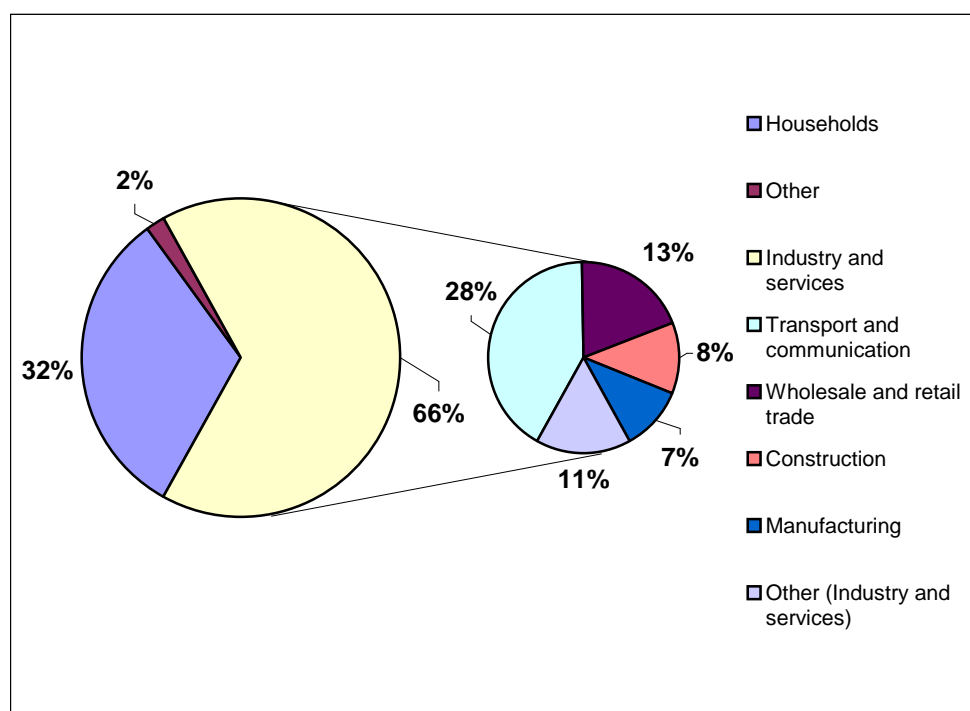
To compare the total amounts of taxes paid by industries in breakdown by NACE section and households, it should be noted that, households paid 30% of all taxes; followed by transport and communication industries with 27%. (Table2)

Table 2. Most important contributors to environmental taxes paid

		Mln. LVL	%
Total		320.30	100
Households		97.65	30.49
NACE 60-64	Transport and communication	86.42	26.98
NACE 50-52	Wholesale and retail trade	42.18	13.17
NACE 15-37	Manufacturing	24.53	7.66
NACE 45	Construction	24.40	7.62
NACE 70-74	Real estate, renting and business activities	11.29	3.53
NACE 01-05	Agriculture	9.47	2.96
NACE 75	Public administration	6.90	2.16
NACE 90-93	Other community, social, personal service activities	6.38	1.99

Transport industry together with the wholesale, manufacturing and construction industry accounted for more than half of all environmental taxes paid. The entire manufacturing industry (NACE 15-37) paid only approximately 7 per cent of total environmental taxes.

When examining the paid sums, it is noteworthy that, energy taxes were the most important type of environmental taxes paid by the industries (Table3). Main contributors to energy taxes from industries were land transport with 25% or LVL 67.58 mln and that constitute 21% of all environmental taxes. Similar to share in total paid environmental taxes transport industry together with the wholesale, manufacturing and construction industry accounted for more than half of all energy taxes (Fig.3).

**Fig.3 Structure of energy taxes by industries in 2007**

Almost 100% of energy taxes paid by the households were related to transport, and that can be explained by excise tax reliefs and exemptions for heating purposes.

Table 3. Most important contributors to energy taxes paid

		Mln. LVL	%
Total	Total	267.96	100
Households	Households	85.08	31.8
NACE 60-64	Transport and communication	73.76	27.5
NACE 50-52	Wholesale and retail trade	34.65	12.9
NACE 45	Construction	20.76	7.7
NACE 15-37	Manufacturing	19.77	7.4
NACE 70-74	Real estate, renting and business activities	8.82	3.3
NACE 01-05	Agriculture	7.98	3.0
NACE 75	Public administration	5.03	1.9
NACE 90-93	Other community, social, personal service activities	4.40	1.6

In respect to the transport taxes in 2007 the households paid 30% (LVL 12.5 mln) of their total amount. Land transport (Nace 60) follows with 28% or LVL 11.6 mln. Transport industry together with the wholesale and construction industries it accounted for 50% of total transport taxes (Table 4).

Table 4. Most important contributors to transport taxes paid

		Mln LVL	%
Total		41.95	100
Households	Households	12.54	29.9
NACE 60-64	Transport and communication	12.48	29.7
NACE 50-52	Wholesale and retail trade	5.27	12.6
NACE 45	Construction	3.31	7.9
NACE 15-37	Manufacturing	3.17	7.6
NACE 70-74	Real estate, renting and business activities	1.31	3.1
NACE 01-05	Agriculture	1.28	3.1

Since 2003 revenues from transport taxes have increased more than twice, while the number of road vehicles increased only for 37% (Table 5).

Table 5. Transport taxes in Latvia (Mln. LVL)

	2003	2004	2005	2006	2007
Total	20.71	22.73	28.03	34.25	41.95
Car and motorcycle tax	6.70	7.30	9.51	13.68	16.70
Vehicle annual duty	14.01	15.43	18.53	20.57	25.24

(Data source: The Treasury)

Distribution of pollution taxes is completely different. Compared to energy and transport taxes share of households is very insignificant. Four industries contributing

most to pollution taxes were wholesale, real estate and public administration, together accounting for 87% of all pollution taxes (Table 6).

Table 6. Most important contributors to pollution taxes paid

		Mln LVL	%
Total		5.83	100
NACE 50-52	Wholesale and retail trade	2.21	37.9
NACE 70-74	Real estate, renting and business activities	1.06	18.1
NACE 15-37	Manufacturing	0.90	15.5
NACE 75	Public administration	0.90	15.4
NACE 40-41	Electricity, gas and water supply	0.27	4.6
NACE 90-93	Other community, social, personal service activities	0.14	2.4
NACE 65-67	Financial intermediation	0.10	1.6
NACE 60-64	Transport and communication	0.09	1.5
NACE 01-05	Agriculture	0.06	1.1
NACE 45	Construction	0.05	0.9
NACE 55	Hotels and restaurants	0.04	0.6
NACE 10-14	Mining and quarrying	0.01	0.2
NACE 80-85	Education, health and social work	0.01	0.1
Households	Households	0.00	0.03

Main taxpayers of resource taxes are NACE 90 and NACE 40 industries, which use water most of all. Compared to other environmental taxes share of tax paid by the mining and quarrying industry (NACE 10-14) was more significant -7% of all resource taxes (Fig.4).

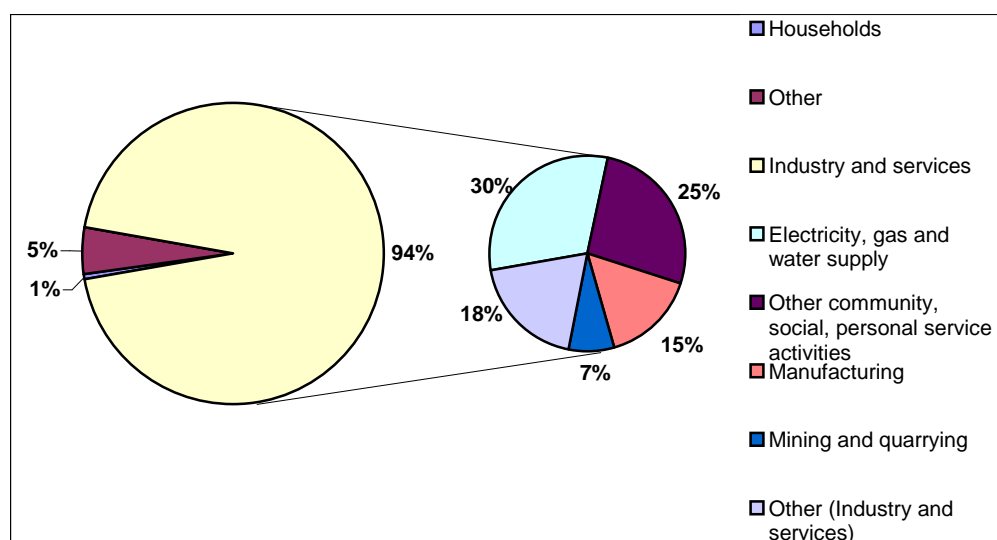


Fig.4 Structure of resource taxes by industries in 2007

All manufacturing industries together accounted for 15 % of resource taxes paid by the industries, and manufacture of food products, beverages had the highest share (Table 7)

Table 7. Most important contributors to resource taxes paid

		Mln LVL	%
Total		4.56	100
NACE 90	Sewage and refuse disposal, sanitation and similar activities	1.13	24.80
NACE 41	Collection, purification and distribution of water	0.98	21.51
NACE 15-37	Manufacturing	0.68	14.83
NACE 40	Electricity, gas, steam and hot water supply	0.36	8.00
NACE 10-14	Mining and quarrying	0.32	7.09
NACE 45	Construction	0.28	6.11
NACE 75	Public administration	0.21	4.66
NACE 01-05	Agriculture	0.14	3.10
NACE 65-67	Financial intermediation	0.11	2.38
NACE 70-74	Real estate, renting and business activities	0.10	2.27
NACE 60-64	Transport and communication	0.10	2.22
NACE 50-52	Wholesale and retail trade	0.05	1.19
NACE 80-85	Education, health and social work	0.05	1.03
Households	Households	0.02	0.51
NACE 55	Hotels and restaurants	0.01	0.12