



We are born and live in nature, it is used every day throughout our lives. Without resources given by nature – air, water, nutrients – our life on this planet would be unthinkable. We take, use and leave. We depend on nature and nature depends on our actions. We can choose to live and act in such a way to protect it.

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"Dives reklāma"

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#### What is Waste?

Waste is any object or substance which the holder discards or intends or is required to discard. Each of us is a waste producer, because we use and consume something every day, and there is always something left over. Waste is one of the largest and most dangerous environmental pollution reasons. It also affects negatively both – the quality of our life and ecosystem when not managed according to the environmental requirements.





# Waste Causes Harm to us and to the Environment: If you throw in nature ...

Household waste decomposition (rotting, disintegrating) results in arising gases – carbon dioxide, methane, and in small amounts other gases, which are harmful to human and animal health.

Most of these gases are the cause of climate change. If the waste consists of items that contain heavy metals, then they can lead to pollution of soil and water bodies.

When getting into living organisms through water or food, these pollutants can cause pathological changes and promote a variety of deseases.





### Burning of Waste Causes Acid Rain

In combustion processes, when combining sulfur and nitrogen with oxygen, acidic oxides are formed. When appearing in increased quantities in the air, along with water vapor they form nitric acid, sulfuric acid and sulphurous acid.

When reaching the soil with precipitation, "acid rain" causes adverse changes to plants and other living organisms. They "burn" tree leaves, pine needles and buds.

Such precipitation in natural water-storage increases the acidity, therefore the prevailing plants and animals existing there disappear. The buildings and monuments are also damaged.

It can also increase respiratory deseases.

### Takes up Large Areas of Land

Waste has been dumped in landfill sites (waste dumping sites) and occupy large areas of land. Municipal waste in Europe is growing in average by 5% per year.

If we do not take care about waste reduction, we will have to search for additional space for waste disposal. Construction of new landfills requires large financial resources in order to prevent waste pollution discharge into surface waters and groundwaters, as well as to prevent air pollution.

It is more valuable and efficient to use land areas for agriculture, forestry, construction or simple relaxation.





### Waste Usable for Recycling: Paper

Paper and paperboard, takes one of the key points in the total municipal waste stream, in average about 27%.

Paper source is cellulose, that is mainly obtained from wood. To produce 1 ton of pulp weight, it is necessary to have about 3.5 tons of wood or 12 to 14 trees. Of these, about 1 ton of office paper can be produced.

One ton of office paper we can also obtain by collecting and processing about 1.3 tons of wastepaper.

By processing waste paper, we can reduce gas emissions in the air that promote climate change, water pollution by chlorine compounds in the bleaching plants, as well as water consumption. It also saves energy by 40%.

### Forest – the Earth's Climate Regulator

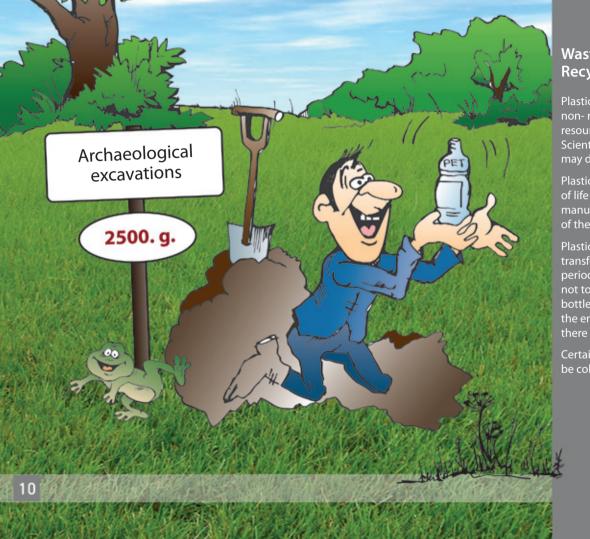
Forests act as a climate regulator and the green lungs of the earth.

They take carbon dioxide, which we exhale and return the oxygen, so that we can live.

Wood absorbs and prevents excessive moisture, but gives relaxation in drought. It protects us from the dust. The forest is the provider of fauna and flora biodiversity, home for wildlife species.

By sorting and delivering wastepaper for recycling, we can curb deforestation.





### Waste Usable for Recycling: Plastic

Plastic is derived from non- renewable natural resources – petroleum products. Scientists predict that oil products may dry up in the next 50 years.

Plastic is widely used in all areas of life – consumer goods, manufacturing and other sectors of the economy.

Plastic does not decompose and transform in nature for a long period. Therefore it is important not to leave plastic waste (bags, bottles, dishes and other items) in the environment, as they will stay there for years.

Certain types of plastic waste can be collected and recycled.

### Recoverable Waste: Glass

Glass products do not cause significant damage to the environment, but it is a fragile material. Its sharp edges, while being in the environment, can be harmful to humans and animals.

Natural raw materials – silica sand, fine and chalk (limestone) are used in glass production. Sand melting process consumes a lot of energy.

In a new glass manufacturing process up to 50% of recycled glass can be added, which can also save energy.





### Waste Usable for Recycling: Metal

Metal materials in nature occurre in ores. A lot of different resources are consumed in initial metal extraction process from ores in mining. Therefore, it is more beneficial to collect and recycle the metal waste (scrap). Metal decomposes in nature slowly due to corrosion, thus polluting the environment in a long-run.

White tin-plated tin, aluminum and black tin are most commonly used for metal packaging in the food industry. Chrome plate is used for non-food product packaging.

"Liepajas Metalurgs" is one of the largest metal recycling companies in Latvia.

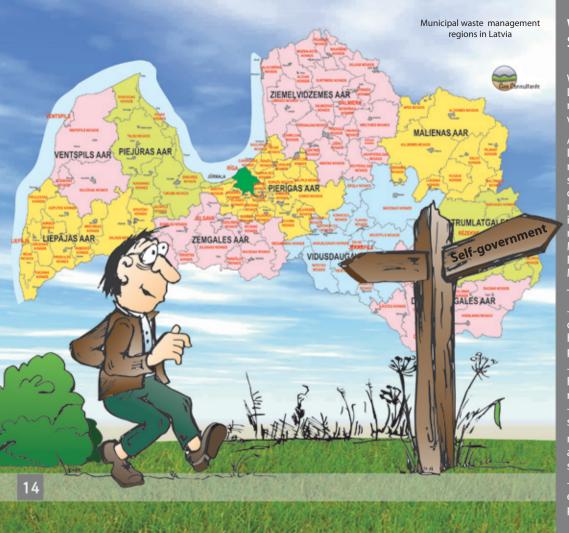
#### Household Hazardous Waste

Hazardous waste is waste which has one or more characteristics making it hazardous to human lifes and health, the environment, or the property.

Household hazardous waste is used electrical and electronic equipment (irons, refrigerators, televisions, computers, mobile phone handsets, accumulators and batteries, fluorescent lamps, etc.), oil filters, oil products, household chemicals, organic solvents, pesticides, medical waste (obsolete drugs, used syringes or systems, etc.), asbestos waste (asbestos slate tiles, insulation materials, etc.)

As a result of various external factors, harmful chemical compounds which arise from them, may end up in living organisms, thereby contributing to human and animal diseases.





#### Waste Management System in Latvia

Waste management policy in Latvia is set by the National Waste management plan and Regional waste management plans.

According to the national plan Latvia is divided into 10 waste management regions and Riga seperately. It is anticipated to create 10 -12 new regional municipal solid waste landfills in Latvia. Waste management is regulated by The Waste Management Law and Regulations of the Cabinet of Ministers.

#### The Law states:

- Waste management must be carried out without endangering human life and health, as well as personal property;
- Waste management should not harm the environment and pose a risk to water, air, soil, flora and fauna;
- Waste management process should not interfere with the noises and smells, as well as adversely affect the landscape and specially protected areas;
- Due to waste management the environment can not remain polluted or littered.

#### Regional Plans – Separate Collection System for Regions

Regional plans provide formation of a separate waste collection system in the region.

This means that for every 300-500 people in the city at least one separate waste collection point should be established.

Also, in all villages with more than 200 people, we should have at least one separate waste collection point.

Separate waste collection point should ensure separate collection of at least two types of waste.

While the separate waste collection sites should be created in the region's largest cities and towns with a population exceeding 1000.





### Separated Waste Sorting Points

Household waste mainly arises from the household. It includes biodegradable waste, packaging waste (paper, cardboard, plastic, glass, metal), and household hazardous waste.

Household waste can be reduced, by seperating materials that are useful for recycling. They should be placed in special containers for sorted waste (paper, glass, plastic, biodegradable waste).

Special seperated waste containers are necessary for secondary material in order to maximize and ensure high quality recycling.

Separate waste collection site should ensure separate collection of at least two kinds of waste.

#### A Container for Paper

It is intended for paper, cardboard, etc. paper products (wastepaper).

Do not throw wet and messy paper products.

Just sorted, clean, one type paper is a good secondary source material. Therefore collected paper in special paper sorting sites is repacked and resorted according to the requirements of the processing plants, is compressed into bales and transported to processing plants.

Wastepaper in Latvia is recycled by company "Papīrfabrika Līgatne".

From the recycled material it produces new products – wrapping paper, writing paper, wallpaper backs, paper cups, and other paper types and products.

Company "VLT" Ltd. in town of Valmiera produces egg cartons and pallets from paper waste.





#### A Container for Glass

Provided for: glass packaging – bottles, jars and other glass products.

Before disposing glass packaging, it should be flushed. Otherwise, the filling remainings may decave and the containers will spread an unpleasant smell.

Do not throw the mirror glass, car glass and window glass with a special coating.

In Latvia glass is recycled in small amounts, most of the collected glass waste is exported to other countries.

#### A Container for Plastic

A Container for sorted plastic waste is usually yellow.

It is designed for: used plastic packaging - PET bottles, plastic bags and films etc. plastic products.

Do not throw toys, oil bottles and with an existing residues filled package. Plastic bottles have to be flattened before discharged.

Drink bottles from PET are a valuable secondary material. New packaging materials, garbage bags, films, drainage pipes, window frames, boxes as well as synthetic yarns for fabrics and other household items can be produced from the recycled plastic.

In Latvia plastic is recycled by the following companies: "PET Baltija" Ltd., "Formika" Ltd., "Nordic Plast" Ltd., "Ādažu polietilēna industrija" Ltd. etc.





### Compostable Waste Container

These containers are usually brown in color and have special vents for air circulation. They are intended for bio-waste that after rotting forms compost - such as, food waste (vegetables, fruit peelings, coffee and tea thicknesses, etc.), green waste, etc.

Food waste before throwing into a special container, should be placed into a paper or compostable biopolymer bag. It can also be wrapped in paper or placed in a carton box.

Do not put fresh meat and fish residues, dogs, cats and other animal feces, baby diapers, sanitary napkins into a container. Collected bio-waste is delivered by the operator to specifically arranged compost areas or to the technological equipments.

Compost is natural, good and humus-rich improver for degraded soil.

#### Good to Know – Different Sorting

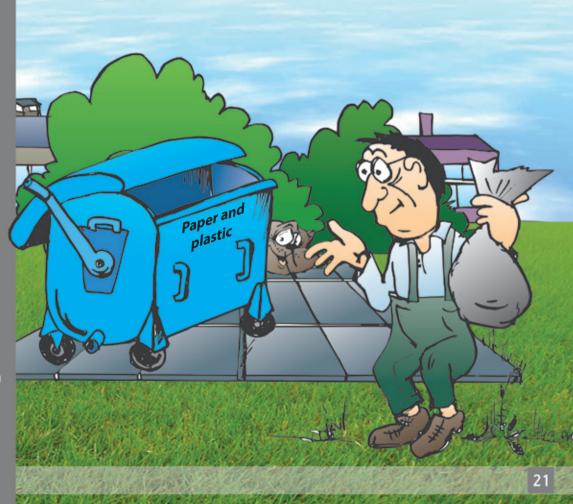
If there's only one container for two types of waste separate collection at the sorting station, you should be guided by the information on the container about management of sorted waste in the container.

If there are several special waste containers in different colors located at the waste collection points, you should be guided by informative signs on them.

There also might be a container with several compartments for different types of sorted waste.

Each waste manager can maintain individual procedures and rules regarding the types of sorted waste, quality, and sorting requirements.

Detailed information can be obtained from your waste management company or municipality.





#### **Waste Sorting Areas**

All sorted waste collection sites have to comply with special regulations. This means that it is a fenced and equipped territory with containers for different types of sorted household waste and bulky waste, including electrical and electronic equipment waste, construction and hazardous waste. There should be installed biodegradable waste composting site as well. Sorting fields in each region or local inhabited area can differ in types of waste collected, as well as in technical equipment available, and other indicators.

### Recycling of Household Hazardous Waste

Highly specialized containers are provided for household hazardous waste.

Small-sized containers are designed for used batteries, that can be placed in supermarkets, gas stations, schools or other places where contracts for the collection of batteries are signed.

You can also agree with your waste manager or specialized hazardous waste management company about the household hazardous waste transfer, if special containers are not available. The largest hazardous waste operator in Latvia is JSC "BAO".

Fluorescent lamps can be recycled in Latvia by "Liepājas Lampu demerkurizācijas centrs" Ltd or JSC "BAO".

By recycling electrical and electronic equipment, accumulators, batteries and other household items, you can get metals, plastic and other raw materials that can be re-used for producing new products.





## Responsible Authority for Waste Management in your Region

One of the functions of the local government is to organize and monitor public solid waste management and disposal. This is stated in the law "On Local Municipalities".

The Waste Management Law requires local authorities to:

- organize management of municipal waste, including household hazardous waste, according to national and regional waste management plans within the administrative area;
- issue binding regulations governing waste management in their administrative territory, its own administrative division of solid waste management area, requirements for waste collection, transport, handling and storage, as well as issue the order on the procedure how payments for waste management are handled;
- organize separate collection of waste in its administrative territory, including bulky waste, compostable waste, etc.

### Obligations of the Waste Producer

Waste producer is any person or legal entity which during its daily activities produces waste.

Waste Management Law stipulates the obligations of the producer of the waste:

to participate in local solid waste management system organized by municipality, by observing binding rules issued by municipality and, by entering into a contract on solid waste collection, transport, handling and storage;

to cover household waste, including household hazardous waste management costs, including separate collection and sorting costs.



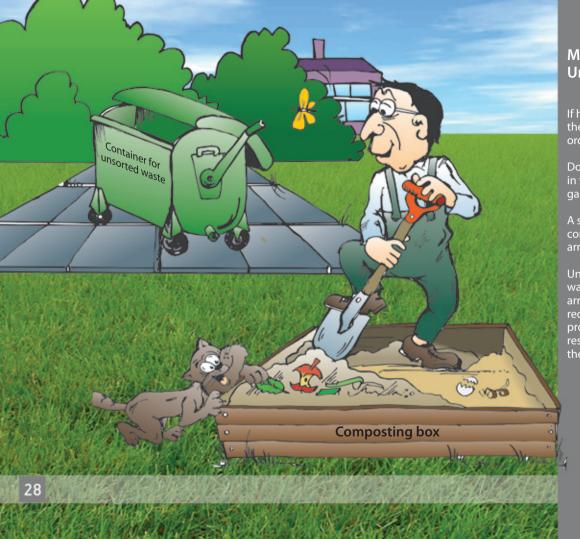


### Responsibilities of a Landowner

The law lays down the obligations of the land owner, in whose estate household waste is produced.

Landowner has to provide a place for a waste containers and free access to municipal waste collector's transport.





#### Management of Unsorted Waste

If household waste is not sorted, then it should be placed in ordinary waste disposal container.

Do not throw away or bury waste in the environment (in the garden, in the woods, etc.).

A special site for only compostable waste can be arranged in the garden.

Unsorted waste is delivered to waste disposal sites that are arranged in accordance with the requirements of environmental protection by companies responsible in accordance with the provisions of the contract.

#### It Should Be your Right Will

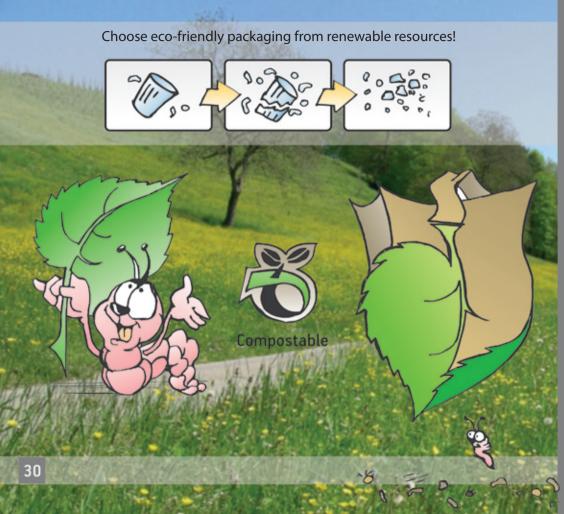
It is good when not only the law requires us to take proper care of our waste, but we want to do it as well.

It is good if we decide to separate waste, and show an interest about the nearest waste sorting site.

It is commendable, if we find free time and deliver already sorted plastic, paper and glass waste or hazardous waste to the sorted waste collection site. Now this waste has become a secondary raw material.

Forests, rivers and meadows, all living creatures around us and, most importantly, our children and grandchildren, who will be able to live in well-kept and clean environment will be thankful for our work.





#### **Learn More**

Thank you for reading this information!

Thank you for your willingne

Thank you for your willingness to support environmentally - friendly way of life and action!

For more information and news about environmental protection and waste management visit:

www.vidm.gov.lv www.atkritumi.lv www.zalajosta.lv www.baterijas.lv www.bao.lv





"Zaļā josta" ("Green Belt") is a company based in Latvia, with one goal: To make Latvia cleaner and waste free. It organizes the management of packaging waste and environment harmful product waste collection and recycling.

The company's goal is also to educate the public, so each of us can act in environmentally friendly way. It is important that every one of us sorts the waste and delivers it to recycling site.

"Zaļā josta" invites to preserve natural resources and not pollute the environment, by supporting a green lifestyle themselves, encouraging everybody around to live in fellowship with themselves and nature.

Thank you for your response, understanding and cooperation – "Zaļā josta".

Your region	
Municipality	
Waste manager	



