Let's acquire the habit and separate waste!

Let's utilise useful raw material, protect the environment, keep and create green jobs

EE waste take-back

Let's protect the environment together

DEPOSIT FEE

50 1p

Waste batteries take-back

Let's protect the environment together

Let's change our habits! Let's reduce waste quantities, let's recycle the waste we produce and enable the opening of new jobs.

➤ **It's the duty of mankind** to take care of the waste they generate. The waste discarded outdoors can pollute the environment and compromise the quality of life. Instead of simply dumping it wherever, waste can be used as a valuable raw material.

➤ **So far, 85%** of waste used to be landfilled. With this behaviour, over a period of only 10 years, we squandered **5 billion kunas** worth of raw materials such as glass, paper, plastics and metal.

➤ **Clean environment** is not only our responsibility and obligation, but also the possibility for economic development!

It's high time to stop waste landfilling and take up **waste management!**

▶ So far, **85%** of waste generated in Croatia was landfilled.

▶ In the period 2005-2012 more than **2 billion** kunas was spent on landfill remediation.

▶ Until 2018, more than **300 landfills** in Croatia should be remediated and closed. **13 waste management centres** will be built, where useful raw material will be extracted from the waste.

▶ In the European Union, on average **37%** of waste is landfilled.

▶ Waste management in the European Union creates **2 million jobs,** worth **EUR 137bn** (1.1% of EU GDP)s.

404 kg

▶ **The average quantity of waste per capita generated in a year**

54 kg

Municipal waste is the waste produced in households and similar waste generated from economic activity, by institutions and the services sector. It comprises everything we discard during our daily activities.

23,2 % — paper and cardboard

30,9 % — kitchen waste

22,9 % — plastics

3,7 % — glass

3,7 % — textile

2,1 % — metal

5,7 % — garden waste

7,8 % — other

Izvor: HAOP

Due to irresponsible behaviour, over the last **10 years** valuable raw materials (metal, glass, paper, etc.) worth **5 billion kunas** have been buried in the ground. This value is equivalent to **180 school buildings** with gymnasiums. We have to stop landfilling and start **managing** waste!

ŠKOLA

most desirable option
option

waste prevention
reuse

preparation for reuse

recycling

energy
recovery

disposal

**Waste
management
order of
priority**

least
desirable
option
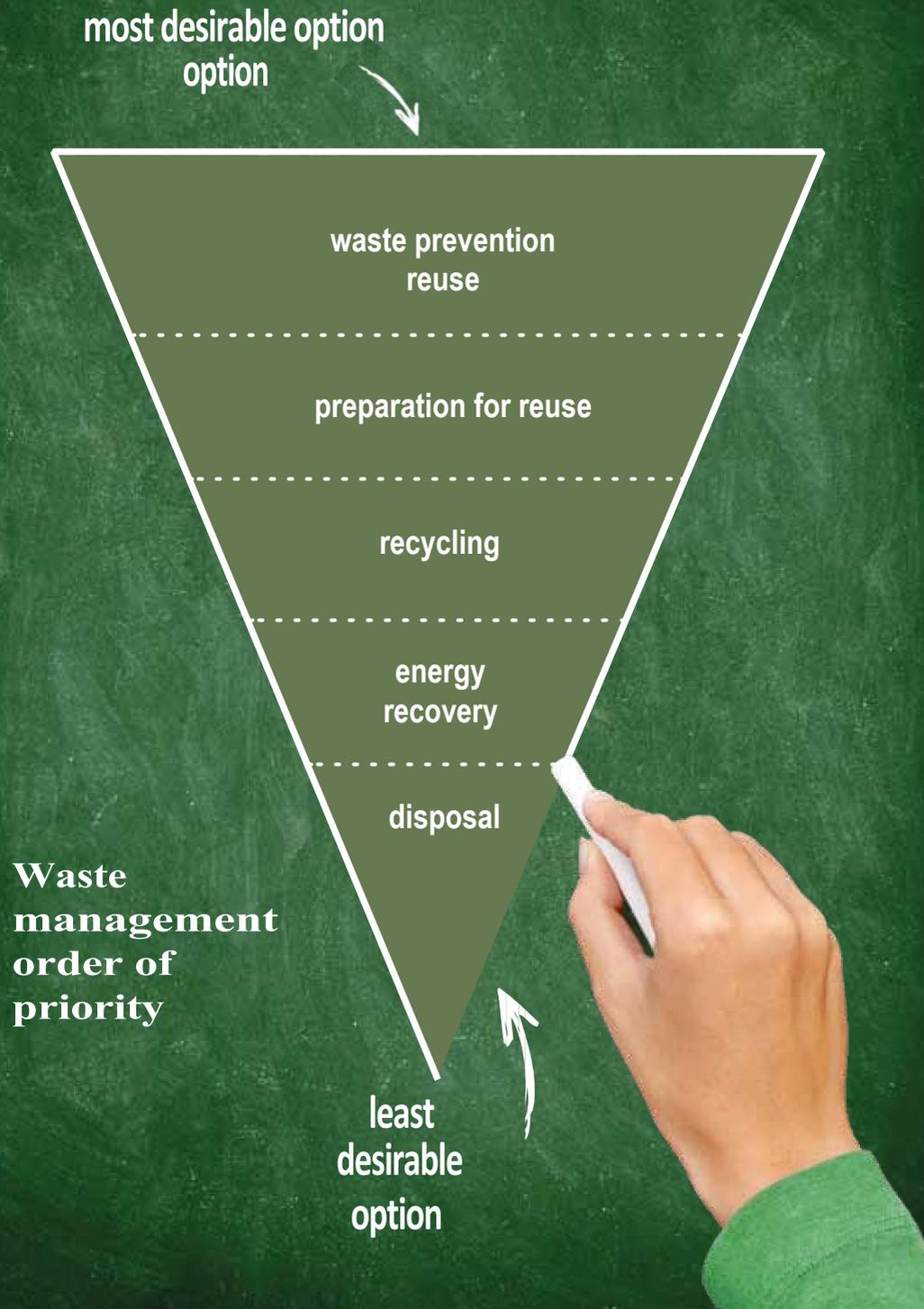
Europe is a continent that is least rich in raw materials that are the basis of economic development. Since raw materials are limited, they are also expensive. At the same time, raw material is available in the form of waste. We want to and have to reuse them and return them to the economy.

With waste management we reduce the costs of raw materials, we save energy, lead healthier lives, and we are ensuring a better future for our children.

Prevention of waste – the most desirable behaviour in waste management is preventing waste generation in the first place.

It is important to create as little as possible waste! When shopping, choose products in eco-friendly packaging – this way you motivate producers to introduce eco-friendly packaging design.

How to prevent waste?

> Buy rationally: choose one lager packaging instead of several smaller ones.
> Buy products in bulk instead of in individual packaging.
> Use products more than once, for example plastic bags.
> Don't throw away food: buy according to plan and in the quantity you really need.

Choose products in larger packaging!

Use rechargeable batteries!

Do you know that one third of food is thrown away? To be more specific: plan your shopping, and you can use leftovers to prepare new meals or store them in the freezer.
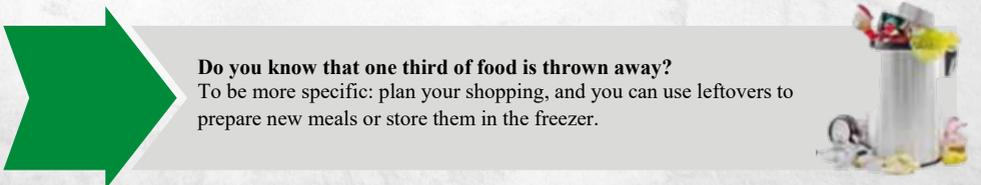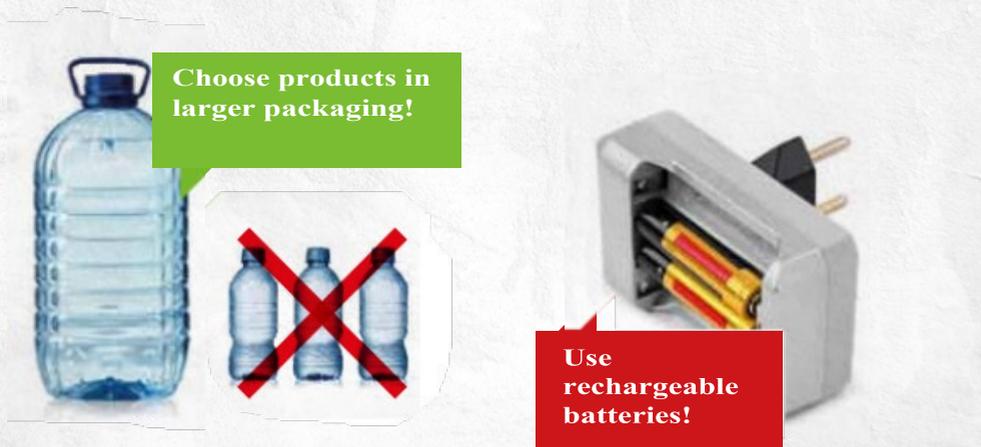
Reuse is the second most desirable form of handling waste, right after waste prevention.

According to the data by the European Commission, **80%** of products we buy are used only once and then discarded. You can either donate the products that are in working order or repurpose them, and have defective ones repaired.

How to reuse waste?

> Buy products in reusable packaging – a glass jar can become food storage container, or a pen and pencil stand, or holder for other smaller items.
> When you go shopping, take your own canvas bag or basket, reuse plastic shopping bags.
> You can donate or have clothing fitted or use as cleaning cloths.
> Donate books and toys, don't throw them away!
> Renovate, repurpose or donate the furniture you no longer need.

Buy products in reusable packaging!

Try to have damaged products repaired!

Glass bottles that are returned to the shops are used by the producers to manufacture new packaging.

Recycling means converting the collected waste into materials from which new products will be made.

How to recycle?

1ˢᵗ step > **Prepare for recycling**
> Get information about how your utility company collects separated waste and where the nearest civic amenity site (recycling yard) is located.
> Prepare receptacles where you will separate the waste in your home.
> Talk to the members of your household about the importance of separating waste, and about what can be separated: paper, plastics, metal, glass, textile, EE waste, batteries, medicines, bulky waste...

2ⁿᵈ step > **Separate waste and dispose of each type into the designated container**
> It is important not to mix separately collected waste with municipal or other types of waste because it reduces recycling potential.

This is what bins and containers in Rijeka look like!

ATTENTION!
ATTENTION!

Get informed about what containers in your town or municipality look like!

Recycling symbol: Möbius* strip
The term recycling was formed by combining the English words (re + cycle), which in translation means "to circle around again".

* August Ferdinand Möbius, German mathematician and astronomer

Energy recovery is the process in which waste is used to generate electricity or heat.

When we employ the technology of energy recovery, we don't exploit non-renewable natural resources, we don't pollute the environment, and we develop the economy.
Through recovery we reduce greenhouse gas emissions and the overall energy consumption.

In Europe, there are more than 450 waste–to–energy plants, which are informally called incineration plants.
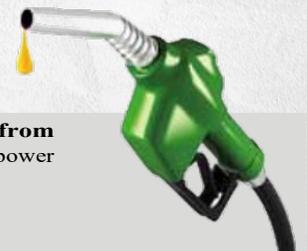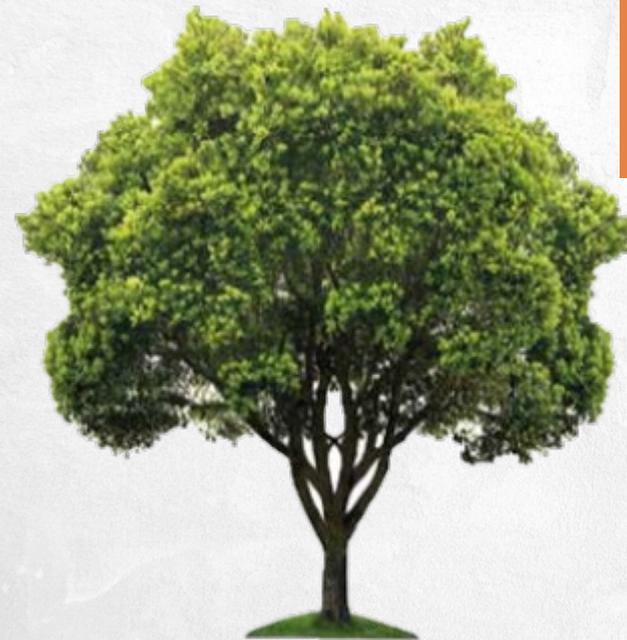
Around 400 kg of RDF can be produced from one tonne of waste! It can be used as fuel in power plants and heating plants.

Why recycle glass?

By recycling glass, we are saving natural resources! By using a tonne of old glass, we have saved **700 kg** of sand, **200 kg** of calcite, and **200 kg** of soda ash, and as much as **30 tonnes** of oil!

By recycling one glass bottle we will save the energy required by a **60 W** light bulb switched on for **4 hours**, a **30-minute** running of the computer, or the TV on for **20 minutes**.

Taking over of packaging in the deposit system has to be organised by every shop selling beverages with the surface area larger than **200 m²**.

If in the manufacturing process we use old glass bottles and jars, we will produce one kilo of glass with **20 litres** less water and **1.4 kW** less electricity, while GHG emissions will be lower by **25%**!

Glass is a valuable packaging material, and its application is widespread in foodstuff and beverage industries.

Choose glass packaging because:

▶ It is completely impermeable and doesn't affect the freshness of the product it holds

▶ It is natural and non-flammable

▶ It is not water-soluble and it is corrosion-resistant

How to recycle glass?

You don't have to remove the paper labels on the packaging
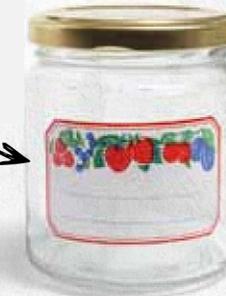
Take off all metal lids or bottle caps

Rinse the jars and bottle swith water to prevent unpleasant smells

DEPOSIT FEE 50 1p

Handle glass the right way:

▶ You can take beverage glass packaging larger than 0.2 litres with the deposit fee marking to the shops and get a refund of the deposit fee of 0.5 kn per bottle.
▶ Dispose of glass packaging in the glass waste container.
▶ Take glass to the civic amenity site: beverage glass packaging, other glass packaging, glass items.

Your utility company is obliged to provide for the separate collection of glass, find out where the containers are placed.

Glass can be recycled and reused endlessly, time and again!

Why recycle paper?

Compared to the conventional production in paper mills, recycling reduces water pollution by **35%** and air pollution by **74%**.

A sheet of paper can be recycled four to six times before it completely disintegrates.

Recycling paper saves forests!

Paper is made from fibrous plant pulp derived mainly from trees, but it can be made from straw or sugarcane.

How to recycle paper?

1. In the paper container you can dispose of newspapers or office papers, magazines, catalogues, flyers, notebooks, and cardboard packaging.

2. When you dispose of old paper and cardboard, it is of the utmost importance not to throw unsuitable types of waste in the same paper container.

3. Don't put into paper containers metallised and laminated paper because it cannot be recycled.

Compare and consider

Making one tonne of paper requires:

> 24 trees
> 200,000 litres of water
> 4600 kWh of energy

Making one tonne of recycled paper requires:

> Not a single tree
> 160 litres of water
> 2400 kWh of energy

Handle paper the in right way:

> Put separately collected paper In the paper container.
> Take separately collected paper to the civic amenity site (recycling yard).

Your utility company is obliged to provide for the separate collection of paper; so find out where containers are located.

Industrial paper making in Croatia started in **1827.** Paper in the form we are familiar with today was created in China around the year **105**, and its production was kept secret for a very long time.

Why recycle plastics?

By recycling plastics, we are saving and protecting natural resources (oil, natural gas) that are used to produce it thus helping protect the environment.

By recycling PET packaging, we are saving 84% of energy required to produce this packaging from scratch using raw materials.

Using waste plastics for heating results in significant savings.

Return scheme for the packaging included in the deposit system has to be organised by every shop selling beverages with the surface area larger than **200 m²**.

Recycling of plastic bottles results in raw material that can be used in the manufacturing of clothing, sleeping bags, toys, and different types of office supplies.

Plastic is a material manufactured from petroleum derivatives. Nowadays it is used in almost all industries, especially as raw material for manufacturing packaging and other products we use on a daily basis.

How to recycle plastics?

Your utility company is obliged to provide for the separate collection of plastics, so find out where the containers are located.

For beverage packaging above 0.2 litres you can get a refund of the 0.50 kn deposit fee

Plastic bags can be used several times over, and when you no longer need them, put them in the plastics container

Take other plastic items to the civic amenity site

DEPOSIT FEE
50lp

Handle plastics in the right way:

► You can take plastic beverage packaging above 0.2 litres with the deposit fee label to the shops and get a refund of 0.50 kn per bottle – it doesn't include milk and dairy products packaging.

► Dispose of plastic items in the plastics container.

► Take plastics to the civic amenity site (recycling yard): plastic packaging from beverages, other plastic packaging (cleaning agents, shampoo, etc.), plastic toys and other items.

Plastics was invented by Briton Alexander Parkes in **1856.**

Why recycle metal?

By recycling metal, we are saving ore as a valuable natural resource, and reducing the quantity of landfilled waste, thus preserving the environment.

By recycling aluminium and steel products, we are saving up to 95% of energy required to manufacture new products from raw materials.

Aluminium and steel do not lose their characteristic properties through recycling. Regardless of how many times they are recycled, they remain sturdy and robust.

Packaging return scheme in the deposit system has to be organised by every shop selling beverages with the surface area larger than **200 m²**.

By recycling tin cans, we can save the energy required for a computer to run for two hours.

A new bicycle can be made from **500** recycled tins.

Metals are produced from ore that are non-renewable sources of energy. The majority of metal waste from households comprises steel and aluminium.

How to recycle metal?

Your utility company is obliged to provide for the separate collection of metal, so find out where the containers are located.

Before you dispose of them, rinse out beverage tins and leave the cap inside.

Rinse out tin cans and push the cap inside.

DEPOSIT FEE 50 1p

Handle metal in the right way:

- ► You can return beverage tins larger than 0.2 litres with the deposit fee label to the shop and get a refund of the 0.50 kn deposit fee per tin can.
- ► Put metal packaging in the metal container.
- ► Take metal packaging to the civic amenity site.

- ► **You can take metal product to the secondary raw materials dealer, and as a natural person you can get HRK 1400 in one month, depending on the quantity and type of metal.**

Steel is one of the most recycled materials in the world. Aluminium was discovered in the early 19th century and, at the time, its price was greater than the price of gold. Two thirds of aluminium ever produced are still in use today. It takes only six weeks for an aluminium tin can to be recycled and returned to the stores in the form of packaging for new products.

Why recycle textile?

By reusing textiles, we reduce the quantity of waste in landfills.

By reusing textile, we can save water and energy, and reduce the quantity of pesticides used in the production of new raw materials.

Old clothing can be used to make household cloths, to fill the mattresses, and similar.

90% of textile waste can be reused, recovered, and recycled.

The majority of **textile waste** originates in households, but textile waste is also created in the industrial production of fibres and clothing. Both have considerable potential for reuse or recycling.

Recycling of clothing, footwear, and other textile is simpler and more accessible because textile containers can be found at the shops. You can hand over textile waste to any shop that sells textiles with the surface area larger than 400 m^2.

How to recycle textile?

You can take the textile to a charity or organisations engaged in collection, repurposing, and recycling activities.

Do not put wet or mouldy clothing or footwear in the container.

Clothing, footwear, and other textile articles have to be separated from other items for recycling, and put into a plastic bin bag, which has to be closed.

Dispose of textile waste in the designated containers at the nearest bring bank ("green island") or at the civic amenity site (recycling yard).

Every year we throw **50000 tonnes** of textile waste in the municipal waste, or **12 kg** per capita.

Why recycle EE waste?

EE devices can contain harmful substances that have to be disposed of properly.

The steel found in devices can be recycled.

EE waste take-back

Let's protect the environment together

New telephones contain precious metals such as gold, copper, silver, and platinum, and other rare materials, which can be used after the device is no longer in function.

Electrical and electronic (EE) waste comprises discarded electrical and electronic equipment and devices that run on electricity. By properly disposing of EE waste, we are protecting our health, and we enable the utilisation of precious metals and plastics it contains.

How to recycle EE waste?

25 cm

ELEKTRONIKA

VEĆE OD 400 m²

ELEKTRONIKA
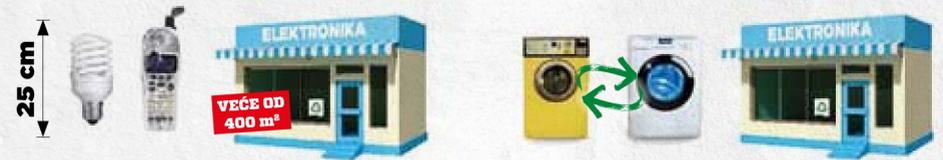
1. Devices **up to 25 cm in size** can be dropped off at the shops displaying this sign with no obligation to purchase.

2. Devices **larger than 25 cm in size** can be dropped off at the shops when you buy another product.

Licensed EE waste collector

3. You can drop off devices at any **civic amenity site** (recycling yard).

4. **Free transport** of EE waste can be arranged over the phone, by an SMS or e-mail. The list of licensed collectors is available at www.fzoeu.hr.

You can take old light bulbs to any shop that sells them.

You can hand over the EE device to the service shop if it cannot be repaired.

50 million tonnes of EE waste is generated every year. By recycling one million mobile phones we can get 16,000 kg of copper, 350 kg of silver, 34 kg of gold, and 15 kg of palladium.

Why you shouldn't dump waste in public areas?

Bulky waste should not be left in public areas!

The waste dumped like this is left out in completely uncontrolled conditions can pose a risk for the safety of passers-by, environment and traffic

A large portion of bulky waste can be recycled

Bulky waste means all items that due to their size cannot be collected together with municipal waste.

How to recycle bulky waste?

Your utility company is obliged to provide for the collection of bulky waste – find out about the collection schedule and options in your town

You can personally take bulky waste to the nearest civic amenity site and drop it off free of charge

Options:

> Collection of bulky waste in the containers that are placed in public areas during certain periods.
> The transport of bulky waste at the request of the citizens, under the conditions that the utility company is obliged to publish on their website.

Find out from your utility company about the schedule and method of collecting bulky waste.

You can drop off old car tyres **free of charge** at the tyre fitting service, at the civic amenity site, or you can call a licensed collector that will come to pick them up. The list of collectors is available at **www.fzoeu.hr**

As much as **30%** of total household waste is comprised of organic waste.

separate bio-waste

turn to compost

amend the soil and fertilise the plants

A composter can be made from wooden slats, or you can buy a compost bin for smaller quantities of waste, which you can keep on the balcony.

Make compost at home!

Did you know that you yourself can make the best fertiliser for your plants and garden?

WHAT YOU NEED

+ An old plastic bucket or metal box, branches, cardboard, sawdust, soil (or hay, leaves).

COMPOSTING STEP BY STEP

1 Make holes in the bottom of the bucket or box.

2 On the bottom, make a base from twigs, cardboard, cardboard, and sawdust.

3 On this base you can put shredded leftover bits of fruit and vegetables, grass, coffee grounds, or teabags. Mix these scraps with some added twigs, cardboard, or sawdust.

4 Dampen the compost with water but watch out that it is neither too dry nor too drenched.

5 Mix the compost occasionally so that the mixture gets sufficiently aerated to turn into humus.

6 Cover the compost with a thin layer of soil, hay, dry grass or cardboard.

7 You know that compost is ready for use when it turns dark brown to black in colour, and you can no longer identify the scraps and waste material you composted.

You must not compost weeds with seeds, walnut leaves, diseased plants, plate scrapings, and animal products.

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Let's acquire the habit and separate waste!

🖱 www.naviku-usvojimo.hr

THE REPUBLIC OF CROATIA

MINISTRY OF ENVIRONMENTAL
AND NATURE PROTECTION

**ENVIRONMENTAL PROTECTION
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