Waste prevention country profile

Croatia

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European Environment Agency

Country profile: Croatia

General information

Name of the country/ region	Croatia
Geographical coverage of the waste prevention programme (national/ regional)	National
Type of programme (stand alone or integrated into waste management plan or into the circular economy strategy)	Integrated into waste management plan
Title of programme and link to programme	Waste Management Plan of the Republic of Croatia for the period 2023-2028, including the Waste Prevention Plan 2023 – 2028, as its integral part (provisional translation) Food Waste Prevention and Reduction Plan for the period 2023 – 2028
Duration of programme	2023-2028
Language	Croatian English (provisional and only for waste management plan)
Contact person in the country/region	Gordana Vešligaj, Ministry of Environmental Protection and Green Transition
Development process of the programme/ revision	The Waste Management Plan for 2023–2028 was officially adopted on July 22, 2023
Foreseen budget for implementation of the programme	N/A

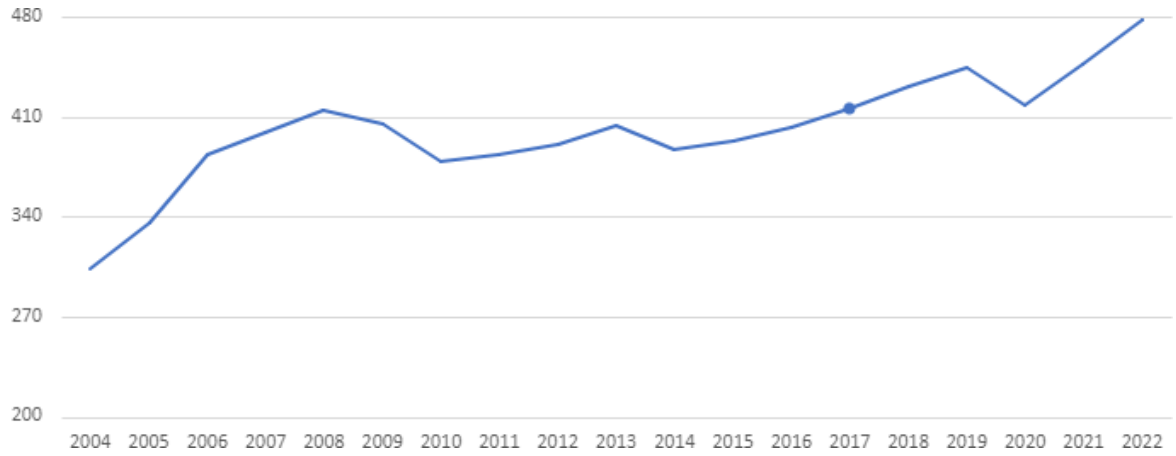
WASTE GENERATION

The following figures illustrate the progress towards waste prevention and decoupling of waste generation from economic growth in Croatia.

Municipal Solid Waste (MSW)

- According to Eurostat, municipal waste generation in Croatia has steadily increased, rising from 304 kg per capita in 2004 to 391 kg per capita in 2012, and further to 478 kg per capita in 2022—a 22% increase over the last decade (2012–2022). Significant increases were recorded in 2008, 2013, 2019, and 2022, with a consistent upward trend between 2014 and 2019, followed by a slight decline in 2020.
- Despite this growth, Croatia's municipal solid waste (MSW) generation has consistently remained below the European average, which was 513 kg per capita in 2022.
- The decline in waste generation observed between 2008 and 2010 can likely be linked to the global financial crisis of 2009. Similarly, the drop in 2020 may be attributed to the impacts of COVID-19 or changes in MSW reporting practices.
- Croatia introduced its first Waste Prevention Program in 2017, and while certain policy measures have shown effectiveness (see "Evaluation of policy effectiveness in the program"), no significant reduction in total MSW generation has been achieved since its implementation. The temporary decline in 2020 was likely influenced by the COVID-19 pandemic or reporting adjustments, but waste generation resumed its upward trend in subsequent years.

Figure 1. Municipal waste generation in Croatia, (kg per capita), 2004-2022

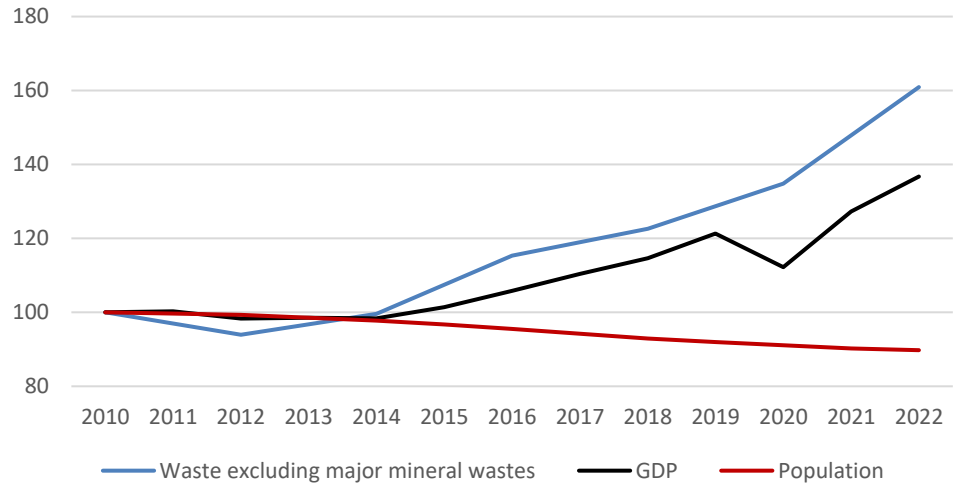


Source: Eurostat [ENV_WASMUN].

Total Waste

- Total waste generation (excluding major mineral waste) in Croatia decreased between 2010 and 2012 but has steadily risen since, increasing by 90% per capita and 71% in total over the last decade (2012–2022) (see Figure 2). Despite this growth, Croatia's total waste generation remains below the EU-27 average, with 1.3 tons per capita in 2022 compared to the EU average of 1.7 tons per capita.
- Between 2010 and 2014, GDP decreased slightly by 2%. However, it has risen steadily since, peaking in 2022 with a 39% increase compared to 2012 levels.
- Over the last decade, total waste generation (excluding major mineral waste) grew by 71%, outpacing GDP growth (+39%) and occurring despite a 10% decline in population between 2012 and 2022. This indicates that Croatia is not on track to decouple waste generation from economic growth.
- Unlike many EU countries, Croatia did not experience a reduction in waste generation during the COVID-19 years, even as the EU-27 average showed a decline. Although Croatia introduced its first Waste Prevention Program (WPP) in 2017 and identified some effective policy instruments (see "Evaluation of policy effectiveness in the program"), no reduction in total waste generation (excluding major mineral waste) has been observed since its implementation.

Figure 2: Total waste generation (excluding major mineral wastes), GDP, and population in Croatia, 2010-2022, (2010=100).



Author's compilation based on data extracted from Eurostat [ENV_WASGEN, NAMA_10_PC, DEMO_GIND]

WASTE PREVENTION PROGRAMME

Objectives and priorities

1.	Waste prevention objectives of the Programme - quantitative objectives (waste reduction) - qualitative objectives (reduction of hazardous substances/ environmental impacts)	Overall Objective: Establish a high-quality waste management system focusing on waste prevention, reuse, and efficient separate waste collection for recycling. General Objectives: • Decouple economic growth from increased waste generation. • Preserve natural resources. • Reduce the volume of waste in landfills. • Decrease emissions • Reduce health and environmental risks. • Decrease hazardous substances in materials and products. • Align with UN goals to reduce marine pollution. Specific Objectives: Prevent the generation of municipal waste, organic waste, electrical and electronic waste, paper and cardboard waste, plastic waste, construction waste, textile and footwear waste, and marine litter. (p. 222)
2.	Sectors covered	• Agriculture • Construction • Sales, and retail • Other commercial and industrial activities • Public services • Households
3.	Priority waste types	• Municipal waste • Bio-waste • WEEE • Paper and cardboard waste • Plastic waste • Construction waste • Textile and footwear waste prevention • Marine litter prevention • Packaging waste (as part of above-mentioned streams)
4.	Target groups	Although target groups are not mentioned directly, the program mentions: - Households - Local government and public sector entities - Commercial and industrial sectors - Educational institutions

Targets, indicators and monitoring

1.	Indicators used to monitor progress	Construction Waste Prevention: - Number of studies conducted to evaluate the use of recycled materials in public construction projects (target value: 1). - Development of guidelines for reusing non-structural parts of buildings (target value: 1). - Implementation of incentive fees to encourage material reuse from demolition and other construction activities (target value: 1). Biowaste Management: - Functional applications developed for tracking and processing data on food waste from businesses (target value: 1). - Conducted statistical research on household food waste (target value: 1). - Development of methodologies to assess and improve the effectiveness of food waste prevention measures (target value: 1). - Number of local government units implementing and promoting home composting projects (target value: 300 (50 per year)). Plastic Waste Reduction: - Production of manuals aimed at reducing the consumption of single-use plastics (target value: 2). - Reported reduction in the distribution of very lightweight plastic carry bags (target value: 5). - Implementation of projects to minimize the use of single-use plastic products (target value: 12). - Number of voluntary agreements and initiatives established to reduce plastic waste (target value: 10). Green Public Procurement Indicators: - Establishment of a functional Green Public Procurement website (target value: 1). - Number of trainings conducted on environmentally friendly public procurement (target value: 6). - Development of guidelines for green procurement in road construction and maintenance (target value: 1). - Establishment of a functional database for best practices in green procurement (target value: 1). - Number of informative and educational materials prepared to support green procurement (target value: 6). - Percentage increase in green public and corporate procurements, reflecting enhanced sustainability (target value: 50%). Waste Prevention and Best Practices Education: - Number of national campaigns implemented to raise awareness on waste prevention (target value: 12). Eco-Design Promotion: - Development and implementation of an eco-modulation fee model to incorporate environmental costs into product pricing (target value: 1).

		- Analysis of critical raw materials used in products and development of a methodology for their efficient utilization (target value: 1). - Successful implementation of the eco-modulation model in determining fees that manufacturers of products covered by extended producer responsibility systems should pay will be monitored through the achievement of national objectives for each product category (target value: n/a) - Number of eco-label entities granted by the Ministry, indicating compliance with ecological standards (target value: 40). - Number of research and development projects conducted in the field of ecological design (target value: 12). Environmental Management Systems: - Number of campaigns, workshops, and discussions conducted to promote EMAS and ISO 14001 (target value: 6). - Establishment and functionality of a national EMAS website (target value: 1). - Development of an EMAS Programme and a co-financing scheme to support its adoption (target value: 1). Waste Prevention Plan Development: - Creation of guidelines for the preparation of waste prevention plans (target value: 1). - Number of prepared waste prevention plans for regional waste management (target value: 21). - Establishment and operation of reuse centres to promote material reuse (target value: 10) - Activities by local government units to encourage and facilitate reuse (target value: 556).
2.	Quantitative targets	For each performance indicator mentioned above, there is a list of target values (see above). The Food Waste Prevention and Reduction Plan lists a quantitative target to reduce food waste from 286,000 tonnes to 200,200 tonnes, a 30% reduction between 2023 and 2028. This equates to an annual reduction of 5% each year.
3.	Monitoring mechanism of the programme	NA The effects of the Food Waste Prevention and Reduction Plan (2023-2028) will be monitored by measuring the amount of food waste in accordance with the common methodology prescribed by the European Commission.
4.	Evaluation of the programme	NA
5.	Evaluation of policy effectiveness in the programme (policy measures evaluated, waste	The recent prevention program evaluates the effectiveness of previously implemented policy instruments, including: • Charging consumers for lightweight plastic carrier bags and adding information labels to very light

	streams addressed, brief methodology description and, availability of an evaluation report with a link)	plastic bags in 2019, resulting in a 35-36% decrease in consumed bags between 2019 and 2020, measured in both mass units and pieces. • Initiating an action plan in 2021 for waste management and reuse post-earthquake in Sisak-Moslavina County. The evaluation includes assessing the volumes of construction and demolition waste (C&DW) used for site remediation and the proportion of non-usable materials. • Establishing detailed criteria and procedures for secondary raw materials, such as by-products. The evaluation includes data on the number of registered by-product producers and the quantity of by-products in tonnes for construction materials (e.g., stone wool, gypsum, broken bricks). • Promoting eco-labels through regulation changes to support the EU Ecolabel, including educational programs and social media updates from 2017 to 2022. The program is evaluated by presenting the number of certified organizations and products and services certified during this period. • Measures related to the promotion of green procurement were evaluated by tracking measures introduced to promote green procurement through monitoring green public procurement data since 2015, including the number, value, and percentage of green contracts out of the total public procurement. • Monitoring of educational campaigns includes tracking the number of campaigns.

Prevention measures

Implemented prevention measures according to Article 9	**Implemented specific prevention measures:** - **Plastic carrier bag tegulations:** Charge mandated from Jan 2019; ban on certain lightweight bags from 2022. - **Circular Economy in construction:** Action plan initiated in 2021 for waste management and reuse post-earthquake in Sisak-Moslavina County. - **Secondary raw materials:** Established procedures for by-product status. - **Waste monitoring improvements:** Conducted studies on food waste in 2021 and on plastic waste from April 2021 to March 2023. - **Eco-label promotion:** Regulation changes to support EU Ecolabel, with educational programs and social media updates. - **Green public procurement:** Implemented mandatory green procurement for public authorities from 2021; ongoing data tracking and educational outreach. - **Education and information:** National campaigns from 2017-2021 on waste reduction and reuse; specialized workshops and reuse centers established to promote repair and reuse of items.

The waste prevention programme includes the following measures that are proposed to avoid waste generation (Chapter 1.5):

Table 1: Specific waste prevention measures structured according to Art 9 WFD

Promote and support sustainable consumption models	Strengthening the policy framework for the transition to a circular economy in the construction sector, related actions: o *Conduct a study* evaluating the prerequisites and consequences of introducing the obligation to use a specific proportion of recycled material in the construction of public buildings and infrastructure. o *Develop guidelines* detailing the possibilities for reusing non-structural building components such as doors and windows. o *Introduce of incentive fees* to promote the reuse of materials from construction and demolition activities. Strengthening the policy framework for food waste prevention (organic (biowaste) waste), related actions: o *Implementation of the Waste Prevention and Reduction Plan for Food Waste* in Croatia for the period 2023-2028.

	Promoting the purchase of 'green' products and services (relevant for prevention of MSW, WEEE, paper and cardboard waste, construction waste, textile and footwear waste, and plastic waste), related actions: o *Promote Green Public Procurement* through the national Green Public Procurement website o *Educate on Green Public Procurement* o *Develop guidelines* for implementing Green Public Procurement for the design, construction, and maintenance of roads o *Establish of a database* of best practice examples o *Create educational materials* (guides, guidelines, etc.) o *Promote the integration* of environmental protection and *waste prevention criteria* into calls for tenders and contracts for public and corporate procurement of goods and services. Developing a waste prevention plan (relevant to prevention of MSW, WEEE, paper and cardboard waste, construction waste, textile and footwear waste, and plastic waste), related actions: - *Create guidelines* for the preparation of waste prevention plans - *Develop (regional) waste prevention plans*

Encourage the design, manufacturing and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolence), reparable, re-usable and upgradable.	• Promoting ecodesign (systematic integration of environmental aspects into product design with the aim of improving product environmental performance throughout its lifecycle) (relevant to prevention of MSW, WEEE, paper and cardboard waste, construction waste, textile and footwear waste, and plastic waste), related actions: o Develop and analyze criteria for an eco-modulation model to determine the fees that manufacturers of products under extended producer responsibility systems should pay o Conduct an analysis of critical raw materials in products placed on the Croatian market and develop a methodology for monitoring their use o Implement an eco-modulation in determining fees that manufacturers of products covered by extended producer responsibility systems should pay o Promote the certification of sustainable products and services (promotion of ecolabel) o Support R&D projects in ecological design and assist manufacturers in more efficiently utilising natural resources, particularly critical raw materials. Promoting established environmental management systems, including EMAS and ISO 14001 systems (relevant to prevention of MSW, WEEE, paper and cardboard waste, construction waste, textile and footwear waste, and plastic waste), related actions: o *Implement promotional activities.* o *Operate the national EMAS website.* o *Develop an EMAS Programme* o Develop *a co-financing programme* for the introduction of EMAS
Focus on products containing critical raw materials to prevent these materials from becoming waste.	• Promoting ecodesign (systematic integration of environmental aspects into product design with the aim of improving product environmental performance throughout its lifecycle), related actions: o *Create an analysis* on critical raw materials in products placed on the Croatian market and the development of a methodology for monitoring their utilization. o *Support R&D projects in ecological design* and assist manufacturers in

	more efficiently utilizing natural resources, particularly critical raw materials.
Encourage the re-use of products and the setting up of systems promoting repair and re-use activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products.	Promoting the exchange and reuse of scrap products (related to preventing the generation of municipal, textile, and footwear waste, WEEE), related actions: - *Establish reuse centres.* - Create and distribute of promotional materials and organise of workshops and other informative and *educational activities on reuse and repair.*
Encourage, as appropriate and without prejudice to intellectual property rights, the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety.	Promoting eco-design (systematic integration of environmental aspects into product design with the aim of improving product environmental performance throughout its lifecycle), related actions: o Develop and analyse the *criteria for an eco-modulation* in determining fees that manufacturers of products covered by extended producer responsibility systems should pay
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.	Strengthening the policy framework for the transition to a circular economy in the construction sector (for construction waste), related actions o *Conduct a study* evaluating the prerequisites and consequences of introducing the obligation to use a specific proportion of recycled material in the construction of public buildings and infrastructure. o *Develop guidelines* detailing the possibilities for reusing non-structural building components such as doors and windows o Introduce of incentive fees to promote the reuse of materials from construction and demolition activities.
Reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the United Nations Sustainable Development Goal to reduce by 50 % per capita global food waste at the retail and consumer levels and to reduce food losses along production and supply chains by 2030.	Strengthening the policy framework for food waste prevention (organic (biowaste) waste), that includes establishment of the Food Waste Prevention and Reduction Plan from 2023 to 2028. See the "Food Waste" section below for specific measures listed in this plan. Improving the data monitoring system for organic waste (bio-waste), related actions: o *Establish a data collection and processing procedures* on food waste originating from the business sector.

	○ *Conducts a statistical research project* on household-originated food waste ○ *Develop a methodology* for assessing the effectiveness of measures to prevent bio-waste generation. ○ Conduct a project to *assess the effectiveness of measures* to prevent bio-waste generation through home composting. Promoting household composting, related actions: ○ Procure and distribute *home composters.* ○ Develop *educational and informative materials*. ○ Organise *educational and informative activities* and events.
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.	Specific measure to donation listed in the Food Waste Prevention and Reduction Plan: • Encouragement and Further Improvement of the Food Donation System Action 1: Establish a food donation system based on the model of intermediaries in the food donation chain and food banks. Action 2: Include activities to improve the food donation system in the work of local and regional government levels. Action 3: Conduct educational workshops for food banks and intermediaries in the food donation chain.
Promote the reduction of the content of hazardous substances in materials and products, without prejudice to harmonised legal requirements concerning those materials and products laid down at Union level, and ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council provides the information pursuant to article 33(1) of that regulation to the European Chemicals Agency as from 5 January 2021.	The waste prevention programme does not directly address the content of hazardous substances. However, it would be indirectly addressed by other measures promoting eco-design, supporting EMAS, or improving hazardous waste management as listed in the waste management plan.
Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.	Measures related to promoting eco-design (see above).
Identify products that are the main sources of littering, notably in natural and marine environments, and take appropriate measures to prevent and reduce litter from	Encouraging the reduction of disposable (single use) plastic product consumption (Plastic waste and marine litter prevention), related actions:

such products, where Member States decide to implement this obligation through market restrictions, they shall ensure that such restrictions are proportionate and non-discriminatory. Aim to halt the generation of marine litter as a contribution towards the United Nations Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds.	- Creation of a manual for reducing the consumption of single-use plastic products. - Improvement of the system for reducing the consumption of very lightweight plastic carrier bags - Projects designed to promote the reduction of single-use plastic product consumption. - Strengthening dialogue and encouraging the conclusion of voluntary agreements on the prevention, reduction, and reuse of plastic packaging waste.
Develop and support information campaigns to raise awareness about waste prevention and littering.	Strengthening the policy framework for the transition to a circular economy in the construction sector. Strengthening the policy framework for food waste prevention Promoting household composting Encouraging the reduction of disposable (single use) plastic product consumption (Plastic waste and marine litter prevention), actions: - Creation of a manual for reducing the consumption of single-use plastic products. - Improvement of the system for reducing the consumption of very lightweight plastic carrier bags - Projects designed to promote the reduction of single-use plastic product consumption. - Strengthening dialogue and encouraging the conclusion of voluntary agreements on the prevention, reduction, and reuse of plastic packaging waste Raising awareness, conducting education on waste prevention, and sharing best practices (relevant to prevention of MSW, WEEE, paper and cardboard waste, construction waste, textile and footwear waste, plastic waste and marine litter), related actions: - Implementation of a national campaign on waste prevention and the circular economy. Campaigns focused on the following topics, at a minimum: the general importance and role of waste prevention, municipal waste, WEEE, paper and cardboard waste, construction waste, waste textiles and footwear, plastic waste, marine litter

FOOD WASTE PREVENTION

Food waste generation[1]

According to the "Statistical Survey on Food Waste in the Republic of Croatia" from 2021, 286,379 tonnes of food are thrown away annually.

In 2020, Croatia generated a total of 286,379 tonnes of food waste, with households contributing 216,345 tonnes (76%). On average, this equates to 71 kg per capita, with 40% of the waste being avoidable, totalling 106,037 tonnes. Comparisons with 2019 data (398,000 tonnes per year) are not viable due to methodological differences.

Food waste generation in Croatia (2020)

	Household	**Business sector**	**Total**
Food waste (tonnes/year)	216,345	70,034	286,379
Food waste (kg/capita/year)	54	17	71
Edible portion (kg/capita/year)	22	5	26
Non-edible portion (kg/capita/year)	32	13	45

Approximately 33% of household food waste ends up in mixed municipal waste, 23% is used for animal feed, around 17% is separately collected and sent for processing, 16% is composted on -site using home composters, 10% ends up in wastewater in drainage systems, while 1% is handled in some other way.

The Food Waste Prevention and Reduction Plan presents some data on donation listed below.

The amount of donated food (2019-2021)

	2019	**2020**	**2021**
Amount of donated food (tonnes)	1,517	1,726	1,612

The Food Waste Prevention and Reduction Plan lists a quantitative target to reduce food waste from the baseline of 286,000 tonnes to 200,200 tonnes, achieving a 30% reduction between 2023 and 2028.

Measures to prevent food waste

The following measures are listed in the Plan for the Prevention and Reduction of Food Waste in the Republic of Croatia for the period from 2023 to 2028:

Measure 1: Encouragement and further improvement of the food donation system.

Activity 1: Establishment of a food donation system based on the model of intermediaries in the food donation chain and food banks.
Activity 2: Inclusion of activities to improve the food donation system in the work of local and regional government levels.
Activity 3: Conducting educational workshops for food banks and intermediaries in the food donation chain.

Measure 2: Encouraging the reduction of food waste generation.

[1] Based on information collected from the Waste Prevention Programme (2023-2028) and Food Waste Prevention and Reduction Plan 2023-2028 https://narodne-novine.nn.hr/clanci/sluzbeni/2022_12_156_2535.html

Activity 1: Inclusion of food loss and waste prevention activities in regional and local development strategies, programs, and plans.
Activity 2: Implementation of projects for the application of sectoral guidelines for the prevention of food waste in all stages of the food chain.

Measure 3: Promotion of social responsibility in the food sector

Activity 1: Continuation of the dialogue and expansion of the signatories of voluntary agreements on the obligation to reduce the generation of food waste.
Activity 2: Awarding special awards for the most outstanding examples of good practice in the prevention of food waste.

Measure 4: Raising consumer awareness and Information about preventing and reducing food waste.

Activity 1: Campaigns for consumers related to raising awareness about the prevention and reduction of food waste.
Activity 2: Education of children of early preschool and school age about the food waste prevention.

Measure 5: Monitoring the Amount of Food Waste

Activity 1: Measurement of the annual amount of food waste generated at the national level.

Measure 6: Investing in Research Work and Innovative Solutions that Contribute to the Prevention and Reduction of Food Waste

Activity 1: Providing financial support to projects that contribute to the prevention and reduction of food losses and waste.

REUSE OF PRODUCTS[2]

Data

According to 2021 data reported to the EEA in accordance with Commission Implementing Decision (EU) 2021/19, Annex B, Croatia re-used:

- 2,350 tonnes of textiles.
- 7,167 tonnes of electrical and electronic devices.
- 11,492 tonnes of furniture.
- 168,711 tonnes of construction materials.
- 9,177 tonnes of other materials.

It should be noted that this data has been reported for the first time. More information about the interpretation and limitations of the data set are available (EEA, 2024)[3].

Measures to support reuse

According to qualitative data reported to the EEA in 2023 in accordance with Commission Implementing Decision (EU) 2021/19, Annex A, Croatia has reported the following measures:

Measure 1: Encouraging the reuse of demolition materials by introducing an incentive fee for the reuse of demolition materials.

Measure 2: Promoting sustainable construction.

Measure 3: Encouraging Green public procurement including promotion through the national public procurement website, training and establishment database of examples of good practice .

Measure 4: Improvement of the waste prevention system and information and exchange of good practice through the implementation of a national campaign on the topic of waste prevention and improvement of the website - Waste Prevention Portal.

Measure 5: Encouraging the exchange and reuse of used products through the establishment of reuse centres, including the construction of reuse centres, i.e., construction interventions on existing buildings in order to adapt them to their new purpose, procurement of equipment and informational material.

Actions taken to monitor and assess reuse:

In September and October 2023, a survey was conducted to examine household reuse habits. Along with estimating the quantity of reused products, the study also explored citizens' willingness to purchase and use items previously owned by others.

OTHER

- Guidelines for the establishment of reuse in the Republic of Croatia have been written.
- At the local level, information campaigns on waste management are regularly carried out, including campaigns on the reuse of products and materials that have not yet become waste.
- The waste management plan of the Republic of Croatia for the period 2023–2028 (Official Gazette, number 84/23) foresees the establishment of reuse centers.
- In addition to reuse centers, the Law on Waste Management (Official Gazette, number 84/2021) prescribes decategorization as a procedure by which the reuse center establishes product status for a certain quantity and type of goods instead of waste status. Decategorization can be carried out if the reuse center determines that the goods fulfill the purpose for which they were originally made. The following types of goods are included:

[2] Based on information collected from the https://doi.org/10.2909/50b2430b-8218-471c-86ea-65236a870a28

[3] https://doi.org/10.2909/50b2430b-8218-471c-86ea-65236a870a28

- tools and devices and their parts not intended exclusively for professional use;
- textiles, clothing and footwear;
- vehicle parts;
- consumer goods, and i
- tems that are considered bulky waste.

This is intended primarily for still usable items that citizens discard in recycling yards.

Best practice examples

The City of Prelog

Within just five years, the city of Prelog in northern Croatia has tripled its rate of separately collected waste. The city has also reduced mixed waste generation to less than 100 kg per capita, establishing itself as a zero-waste best practice example in Croatia and beyond.
This remarkable progress was achieved through:

- Door-to-door separate waste collection
- Development of new local waste management infrastructure
- Creation of a fair yet profitable system
- Effective education and communication programs for residents
- Strong collaboration among the NGO Zelena akcija (Friends of the Earth Croatia/Zero Waste Croatia), the city of Prelog, and 11 neighboring municipalities of varying political affiliations, all managed by the public company PRE-KOM in Prelog[4].

PRE-KOM

Twelve municipalities have joined the successful waste management system operated by the municipal company PRE-KOM, a national leader in sustainable waste management in Croatia. PRE-KOM achieves top results in waste reduction, separate collection, recycling, and composting, serving more than 38,000 people.

Since implementing new guidelines in 2015, PRE-KOM has become Croatia's leading municipal waste management company. By 2018, it achieved an average recycling rate of 56%, compared to the national average of 24%, and reduced mixed waste disposal to just 79 kg per capita annually, significantly lower than the Croatian average of 315 kg. In its 11 municipalities, separate waste collection rates increased from 10–20% to 50–60% in a short time, with a target of reaching 70% by 2020. For comparison, Croatia aims to achieve this goal by 2030.

According to 2017 data published by the Environmental Agency, six of Croatia's 10 most successful municipalities are part of PRE-KOM's system. In 2017, Prelog achieved a 55.9% separate waste collection rate. Preliminary 2018 results show further progress, with Belica reaching 65.68% and Prelog 60.78%.

[4] The story of Prelog - Zero Waste Cities

Links to circular economy

Approaches for improving circularity are often highly interlinked with successful waste prevention. The following table shows which circular strategies are explicitly integrated into the Croatian waste prevention programme.

Topic	Addressed in the programme	Comments
Eco-design	Yes	The measures include - promoting eco-design through the certification of sustainable products and services, including the use of modulating fees for extended producer responsibility, informational campaigns, etc. It includes also promoting established environmental management systems, including EMAS and ISO 14001 systems.
Repair, refurbishment and remanufacture	Yes	The measures include promoting the exchange and reuse of scrap products (related to preventing the generation of municipal, textile, and footwear waste, WEEE).
Recycling	Yes	Activities promoting home composting.
Economic incentives and finance	Yes	Economic instruments such as of modulating fees for products in an extended producer responsibility system
Circular business models	Yes	e.g., establishment of reuse centres
Eco-innovation	NA	
Governance, skills and knowledge	Yes	e.g. trough creation of informative and educational materials (guides, guidelines, etc.)

Other related documents/strategies to waste prevention and circular economy:

- Low Carbon Development Strategy of the Republic of Croatia until 2030 with a view to 2050 (OG63/21) (Croatian only) https://mingor.gov.hr/UserDocsImages/klimatske_aktivnosti/odrzivi_razvoj/NUS/lts_nus_eng.pdf
- Smart Specialization Strategy till 2029 (Croatian only) https://mingor.gov.hr/UserDocsImages/slike/Vijesti/2022/S3%20do%202029%20Tekst%20VRH%202023%2012%2013.pdf
- Sustainable Tourism Development Strategy until 2030 (OG 2/23) (Croatian only) https://narodne-novine.nn.hr/clanci/sluzbeni/full/2023_01_2_18.html

- National Plan for the Development of Sustainable Tourism until 2027 (Croatian only) https://mint.gov.hr/UserDocsImages/2023_dokumenti/Nacionalni%20plan%20razvoja%20odr%C5%BEivog%20turizma%20do%202027.%20godine%20i%20Akcijski%20plan%20do%202025.%20godine.pdf