

**Action Plan to Reduce Plastic Pollution
in the City of Trogir 2021 – 2026**

Trogir, June 28, 2021



Action Plan to Reduce Plastic Pollution in the City of Trogir 2021 – 2026

This Action Plan includes measures and activities to be implemented in order to achieve short- and long- term objectives with the purpose of limiting plastic leakage into the environment, as well as plastic pollution of the sea. Over time, plastic objects are reduced to tiny plastic particles smaller than five millimetres – microplastics, which when found in the sea or sediment, represent an almost invisible but dangerous form of pollution. Due to the mass use of plastics, microplastics have become ubiquitous part of the marine environment. Various toxic substances accumulate on its surface, while fish and other marine organisms, especially bivalve molluscs, can take it for food. Microplastics thus enter the food chain, that includes humans, too. Globally, the largest source of plastic that we bring into the body is water – both bottled and tapped. There are significant regional differences in the amount of microplastics present in the environment, with twice as many plastic particles found in water in the USA and India, then in Europe and Indonesia. Salt, beer and molluscs have been identified as foods that contain the highest amount of plastic particles. Research results show that the problem of plastic pollution is universal and directly affects people, which is why the City of Trogir decided to introduce appropriate measures and activities to prevent plastics from entering the environment and the food chain.

In order to achieve the goals of this Action Plan, the City of Trogir must fully embrace the models of circular economy. The Action Plan proposes measures and activities to reduce the use of unnecessary single-use plastics, promotes alternatives to plastic products, designs activities and ensures the implementation of improvements in plastic waste management processes.

The Action Plan consists of three thematic units:

- a) **Reducing the total amount of produced and disposed plastic waste, establishing a system that supports circular economy and remediation of existing pollution** – prescribing the objectives and activities to be carried out at the City level in order to reduce waste volumes to minimum legally determined rates
- b) **Creating examples of good practice in reducing waste generation and its reuse** – defining the goals and activities that need to be implemented within the City of Trogir and its institutions to become fully plastic free, thus being an example of good practice not only in the Republic of Croatia, but also in a wider region
- c) **Education and communication with the public** – an activity that fully supports the implementation of the previous two units, with the aim of increasing the environmental awareness of citizens and ensuring long-term support for the Action Plan to Reduce Plastic Pollution in the City of Trogir 2021 – 2026.

The City of Trogir is part of the WWF global initiative called Plastic Smart Cities which aims to prevent the flow of plastic into nature by 2030. The Action Plan was developed within the Plastic Smart Cities Croatia project, implemented by Association Sunce and WWF Mediterranean.

The entire Action Plan and its implementation should be transparent and accessible to the public.

1. REDUCING THE TOTAL AMOUNT OF PRODUCED AND DISPOSED PLASTIC WASTE, ESTABLISHING A SYSTEM THAT SUPPORTS CIRCULAR ECONOMY AND REMEDIATION OF EXISTING POLLUTION

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 1.1) Reduce the amount of disposed plastic waste by 10% at the level of the City, i.e., by 30% in the pilot project area within one year of the adoption of the Plan			
Act. 1.1.1) Implementation of waste collection and management system which provides the greatest impact in terms of quantities and quality of separately collected plastics	City of Trogir and TG Holding	2021	New or updated Waste Management Plan and its implementation in accordance with the Waste Management Act, including the proper collection and management of all types of waste, as well as biodegradable plastics through the composting process
Act. 1.1.2) Implementation of a separate waste collection system in marine ports and harbors	TG Holding	2022	Containers for separate waste collection installed at all ports and marinas in the city of Trogir. Establish a system that will encourage boaters to collect (and reduce) waste separately (i.e. containers for returnable packaging from ships), which include education and information activities (promotional materials and info panels) in marinas / ports

Act. 1.1.4) Implementation of a door-to-door pilot project for waste management and collection system in the City settlement of Plano	TG Holding	2022	A door-to-door waste management and collection system for a minimum of 200 users/households in the settlement of Plano implemented
			10% reduction in the amount of plastic waste disposed of at mixed municipal waste facilities on the City level, compared to the reference year 2019
			30% reduction in the amount of plastic waste disposed of at mixed municipal waste facilities in the pilot area, compared to the reference year 2019
<p>Description: In order to develop a quality waste management plan, the preparation of which can give significant results within a short period, it is planned to start the implementation of separate door-to-door waste collection in the urban settlement of Plano. Although the existing waste management plan provided for the introduction of door-to-door waste collection, it is expiring, and it is necessary to start drafting a new waste management plan soon. The system consists of the allocation of special containers for the collection of plastic and mixed municipal waste, ie the development of a detailed collection calendar for all users of the waste collection service in the settlement of Plano. In addition to infrastructure and organization of collection, it is necessary to educate and inform residents about changes in the waste collection system and assign them a calendar of waste collection. It is recommended to monitor the amount of waste that is collected separately and handed over for recovery in order to calculate the efficiency of the system itself. The characteristics of the system that is being introduced are described in the Analysis of the of the current state of use of disposable plastics in the city of Trogir. The implementation of the system will be monitored from the beginning by the municipal warden, who acts preventively and educationally, and if necessary, in the event of frequent recurrence of irregularities, can punish inappropriate waste disposal. The results of the implementation of the first phase of the introduction of the system will be taken into account when modeling the waste management system within the new Waste Management Plan and the implementation of separate collection of biodegradable waste in subsequent phases.</p>			

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 1.2) Reduce the amount of plastic in disposed municipal waste by 55% at the level of the City by 2025			
Act. 1.2.1) Comply with the requirements of Directive (EU) 2019/904 of the European Parliament and the Council from June 5th, 2019, on reducing the environmental impact of certain plastic products	City of Trogir	2025	New or updated Waste Management Plan and its implementation in accordance with the Waste Management Act, including the proper collection and management of all types of waste, as well as biodegradable plastics by the composting process
Act. 1.2.2) Continuous improvement of existing waste management models	TG holding	2025	Survey for measuring the satisfaction level with the users concluded and improvements implemented in regard to survey results
			Report on the implementation of the Waste Management Plan and implementation of recommendations
Act. 1.2.3) Ensuring cooperation and agreement on separate waste collection and implementation of activities to reduce the generation of plastic waste within this Action Plan for all public institutions and companies that are not in direct jurisdiction of the City of Trogir but the Split-Dalmatia County	City of Trogir and Split-Dalmatia County	2022	Agreement on the introduction of a separate waste collection system and the implementation of activities to reduce the generation of plastic waste within public institutions and companies of the Split-Dalmatia County that operate in the city of Trogir and thus participate in waste generation within the city signed
Description: A new waste management system based on the "Waste Management Plan" developed under Objective 1.1 is introduced. The implementation of the Plan is analyzed on an annual basis and recommendations for improving the model with the necessary amendments to the waste management system are made.			

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 1.3) Ensure the conditions for the successful application of reuse priorities and sustainable management of alternative plastic substitutes (compostable and recyclable plastics)			
Act 1.3.1) Introduction of separate collection of bio-waste and its composting, i.e., ensuring adequate system of collection and management of alternative materials (compostable and biodegradable plastics)	City of Trogir and TG Holding	2023	New or updated Waste Management Plan and its implementation in accordance with the Waste Management Act, including the proper collection and management of all types of waste, as well as biodegradable plastics through the composting process
Act.1.3.2) Preparation for financing and development of the Reuse Centre, in cooperation with civil society	City of Trogir and TG Holding	2024	Financing project prepared (feasibility study with option analysis);
Act. 1.3.3) Developing a project for the promotion of stores without packaging and co-financing programs	City of Trogir	2022	Co-financing program for projects to reduce packaging waste prepared
Act. 1.3.4) Development of a model for encouraging businesses to stop using disposable plastics in their business	City of Trogir	2022	Amendment of existing regulations to encourage businesses to stop using disposable plastic by reducing rent or providing other benefits
Act. 1.3.5) Planning and building water refilling stations in the city	City of Trogir	2022	A plan to install new drinking water fountains in the City of Trogir created
<p>Description: The mentioned measures are planned in order to provide the auxiliary infrastructure that is needed after the entry into force of the ban on certain plastic products, i.e. the entry of biodegradable plastics on the market of the Republic of Croatia. The composting plant is planned with the intention of managing biowaste and biodegradable plastics, while the Center for reuse and promotion of stores without packaging is planned in order to reduce the amount of plastic waste in general (waste prevention measures).</p>			

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 1.4) Reducing the amount of waste in the environment			
Act. 1.4.1) Organizing the identification, marking and mapping systems of illegal landfills	City of Trogir and TG Holding	2022	All necessary work orders adopted within the Municipal Service Database created for all identified illegal landfills
Act. 1.4.2) Organizing a system for reporting illegal landfills by citizens	City of Trogir and TG Holding	2022	System for reporting illegal landfill sites via computers and smartphones established and instructions for citizens published
Act. 1.4.3) Remediation of illegal landfills	City of Trogir and TG Holding	Continuous	All identified illegal landfills remedied
Act. 1.4.4) Ensuring control over locations where illegal waste disposal occurs systematically	City of Trogir	Continuous	All necessary work orders for continuous monitoring of identified landfills issued (communal warden who will regularly visit the locations) Video surveillance set up, use of new technologies and technical solutions such as video-linking by unmanned aerial vehicle (drone and similar)
Act. 1.4.5) Application of technical and operational measures to reduce the amount of waste ending up in the environment	City of Trogir and TG Holding	Continuous	Replacement of worn-out and damaged containers in the City (torn lids and similar)

Akt. 1.4.6) Ensuring regular covering of the landfill with a purpose of reducing the spreading of plastic by wind, until its final closure	City of Trogir and TG Holding	Continuous	Reducing the amount of waste in the environment around landfills
Act. 1.4.7) Encouraging and/or participating in research efforts related to microparticles and nanoparticles pollution	City of Trogir	2024	Data on environmental pollution with microparticles and nanoparticles of plastics collected and published
Act. 1.4.8) Organization of an annual clean-up of the seabed, beaches and/or terrestrial environment	City of Trogir	Continuous	Clean-up action conducted on at least four locations and results of the action published on the official City website and in the media
			At least two press releases sent on an annual basis (action announcement and action results)
			At least one report of the actions published on the official website of the City of Trogir
			At least one invitation for participation sent to citizens, associations and other relevant stakeholders
Act. 1.4.9) Encourage, invite and provide support for marine litter cleaning actions involving the business sector, educational institutions, associations, diving clubs	City of Trogir	Continuous	A minimum of two land and two diving cleaning actions per year supported by the City of Trogir
			Reports on implemented actions prepared

Act. 1.4.10) Encourage fishermen to implement fishing-for-litter activities in their work	City of Trogir	Continuous	Send an e-mail or flyer by mail to all fishermen in the City of Trogir with all the information on how to carry out the activity fishing-for-litter and its adequate disposal of collected marine litter in ports and marinas once a month
		2022	Place info-posters in visible places within the ports and marinas in the area of the City of Trogir with all the information on how to carry out the fishing-for-litter activities and its adequate disposal of collected marine litter in ports and marinas
<p>Description: Waste present in the environment (including plastic waste) is a result of intentional or unintentional actions, carried out by an individual, who discards waste directly into nature or disposes of waste into a waste management system with inadequate infrastructure which does not prevent waste to leak into the environment via atmospheric or weather conditions. In addition to implementing important measures with regard to identification, remediation and cleaning of illegal landfills and locations polluted by waste, the City of Trogir will invest efforts for mitigation of illegal waste disposal and replacement of inadequate containers and coverage of landfills with the purpose of preventing waste leakage into the environment via wind and rain. In order to classify the effects of waste on the environment, data on microparticles and nanoparticles of plastics will be collected and published.</p>			

<p>Monitoring the implementation of the Plan and evaluating the results of the project</p>	<p>Association Sunce Split and the City of Trogir</p>	<p>2022</p>	<p>Continuous filling in of the monitoring protocol prepared and submitted to the City of Trogir by Association Sunce Split, in accordance with the activities and deadlines specified in this Action Plan (minimum three completed protocols until the end of the project)</p> <hr/> <p>Online evaluation workshop held at the very end of the project with key stakeholders (short narrative report with proposals for improving the implementation of the Action Plan prepared as a results of the workshop)</p>
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2. CREATING EXAMPLES OF GOOD PRACTICE IN REDUCING WASTE GENERATION AND REUSING IT

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 2.1) Limit the use of single-use plastics only to essential and irreplaceable products within City institutions and public companies			
Act. 2.1.1) Preparation of internal Waste Management Plans for City institutions and public companies	City of Trogir	2022	Waste Management Plan and internal results on reducing mixed municipal waste quantities prepared
Act. 2.1.2) Prepare and adopt the Decision on Limiting the Use of Single-Use Plastics for All Public Companies and Institutions of the City of Trogir, as well as educational institutions within the City of Trogir under the governance of the Split-Dalmatia County	City of Trogir	September 2021	Decision on Limiting the Use of Single-Use Plastics for All Public Companies and Institutions of the City of Trogir adopted and published
			All relevant stakeholders notified via official letter
			Manner of implementation of the Decision in educational institutions in the area of the City (governed by the County) agreed
Act. 2.1.3) Giving up on use of all unnecessary disposable plastic products (plastic cups and disposable bags), the same applies to all City institutions and public companies	City of Trogir	2023	Full implementation of the Decision on Limiting the Use of Single-Use Plastics for All Public Companies and Institutions of the City
			Manner of implementation of the Decision in educational institutions in the area of the City (governed by the County) agreed

Act. 2.1.4) Creating a database of alternative and available solutions, i.e., active market research and publication of results	City of Trogir	2021	Database of available alternatives/solutions created and published Continuous base replenishment mechanism provided
Description: The City of Trogir will limit the use of disposable plastic only to essential and irreplaceable products and will encourage the use of alternative products for those products that are not necessarily prohibited (the prohibition on the placing in the market is not applicable to plastic cups and very lightweight plastic bags that preserve product hygiene) within its institutions and public companies.			
Measures and activities	Responsible Partner	Deadline	Results/outputs
OBJECTIVE 2.2) Limit the use of single-use plastics only to essential and irreplaceable products for public events (co)organized or (co)financed by the City of Trogir			
Act. 2.2.1) Prepare and adopt a Decision on Limiting the Use of Single-Use Plastics for Public Events (co)organized or (co)financed by the City of Trogir	City of Trogir	2021	Decision on Limiting the Use of Single-Use Plastics for Public Events (co)organized or (co)financed by the City of Trogir adopted and published All relevant stakeholders notified via official letter Mechanism for the inclusion of the Decision in the procurement process, conclusion of new contracts, organization of events and other activities covered by the Decision provided
Description: The City of Trogir will use products that can be used multiple times or made of paper or compostable plastic in all public events by the end of 2021. The same rules will apply to other events held in public areas and premises owned by the City of Trogir.			

2. EDUCATION AND COMMUNICATION WITH THE PUBLIC

Measures and activities	Responsible Partner	Deadline	Results/Outputs
OBJECTIVE 3.1) Raising citizens' awareness of the harmfulness of plastics in nature and the possibilities for reducing plastics in everyday use			
Act. 3.1.1) Development of a Communication Plan aimed at informing the public and key stakeholders about the project and post-project activities, i.e., the harmfulness of plastics in nature and the possibilities for reducing plastics in everyday use	Association Sunce Split and the City of Trogir	September 2021	Communication Plan for Plastic Smart Trogir and the harmfulness of plastics in nature and possibilities for reducing plastics in everyday use for a period of 2 years following the adoption of the Action Plan
Act. 3.1.2) Cooperation with all involved public and private sector stakeholders	City of Trogir	Continuous	At least one annual meeting/conference on the implementation of the Action Plan and the topic of the harmfulness of plastics in nature and the possibilities of reducing plastics in everyday use organized
Act. 3.1.3) Informing the citizens about all key changes in waste management in the City of Trogir with information on the harmfulness of plastics in nature and the possibilities of reducing plastics in everyday use included	Association Sunce Split and the City of Trogir	Continuous	At least once a month, for a period of two years following the adoption of the Action Plan, provide information to citizens about changes in the waste management system, on the proper classification of waste, the harmfulness of plastics for nature, the possibilities of reducing plastics in everyday use and all key project milestones (leaflets, radio advertisements, posters, websites, social networks, etc.)

Act. 3.1.4) Involvement of citizens, associations and other relevant stakeholders in clean-up actions of the seafloor, beaches and/or land environment	City of Trogir	Continuous	Invitations for participation to citizens, associations and other relevant stakeholders when organizing clean-up actions sent
<p>Description: This goal represents the involvement of the general public within the project. Systematic education, information and active involvement of the public in every step can achieve quality cooperation and better and more detailed implementation of the activities themselves. In this sense, it will be necessary to devise several educational packages specific for each step, which are interconnected and that can be used over a longer period of time.</p> <p>The target groups should include kindergartens, schools, higher education institutions, hospitality and tourism sectors, the economic sector, public authorities and utilities, and the general public.</p>			

CLASS: 351-01/20-01/27

REGISTER NUMBER: 2184/01-30/01-21-2

Trogir, June 28, 2021

Mayor of the City of Trogir

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