

1.0 Summary of Recommendations

Recommendations for Croatia can be summarised as follows:

1. Further updates to the National Waste Management Plan, including
 - a. A clearer specification of what is required in respect of separate collection at the local level
 - b. A clear strategy for the management of municipal waste in the future, taking into account future higher targets
 - c. A consideration of approaches to collecting food waste
 - d. The introduction of a plan to extend the roll out of door to door collection systems
2. Ensure a clear devolution of responsibilities down to the local level, including the establishment of a framework for monitoring performance Reform of funding mechanisms, including consideration of the introduction of a residual waste tax as a replacement to the current EPEEF
3. Activities to support waste prevention and re-use
4. Roll out of PAYT systems
5. Programme to support municipalities and educate householders
6. Improvements in data quality and transparency

2.0 Potential Issues with approach to Waste Management

Number	Potential issue	Description	Reasons for the issue
1	Ambiguity in waste legislation and national planning documents and lack of measures to move waste up the hierarchy	The basis for implementing the waste hierarchy is not well defined in legislation such as the Waste Management Act 2013, whilst the most recent national waste plan (issued in 2015) lacks specificity in respect of the detail behind the measures that are outlined in the document. This is likely to make it more difficult for Croatia to make progress in moving waste up the hierarchy.	<p>As described in the factsheet, the wording of some Articles in the Waste Management Act lacks specificity, whilst others appear to foresee legislation that has not as yet been put into place or fully implemented.</p> <p>The recent national plan appears to have been issued in some haste, linked to recent political changes.</p>
2	To date funding on waste management has not been focused at the right levels of the waste hierarchy	Although Croatia has invested in improvements to its waste management services, to date, most of the investment has been focussed on residual waste treatment. At the lower levels of the hierarchy, and at the local level, however, there is insufficient funding available to develop and operate source segregated collection services.	<p>As indicated in issue 1, the basis for implementing the hierarchy is not well defined in the current legislation and the recently issued updated plan.</p> <p>There is also heavy reliance on the Environmental Protection and Energy Efficiency Fund, which appears to be relatively bureaucratic and inflexible in its operation. This supports recycling through financial disbursements, but does not provide a clear incentive to prevent and recycle waste, and it is not clear to what extent the operation of separate collection services may be funded through this system.</p>

Number	Potential issue	Description	Reasons for the issue
3	Low levels of dry recycling across the country as a whole	Recycling performance varies considerably at a local level. Some areas such as Čakovec are performing very well, in this case driven in part by a relatively high landfill gate fee. However, this is not reflective of typical performance. Although door to door collection is used in the better performing areas including Zagreb, in many places the collection system is dependent upon bring services, which do not perform as well as the door to door systems.	Lack of clarity in national legislation (issue 1). Low incentives for separate collection and recycling. No targets are set for municipalities, and there is no landfill tax or residual waste tax in place. As indicated in issue 2, it is not clear to what extent the Fund allocates finance for the operation of separate collection systems.
4	Almost non-existent separate collection of food waste and other organic waste	Croatia has identified food waste as a significant component of the waste stream, and also needs to decrease the quantities of waste disposed in landfills in order to comply with the Landfill Directive Target for landfilling of biodegradable municipal waste. Further composting or anaerobic digestion would be aligned with the waste hierarchy, but this is likely to require separate collection in order to obtain quality outputs for which there is a demand. At present very little biodegradable municipal waste is collected separately.	The introduction of these systems will ensure waste moves up the hierarchy. A quality and convenient system for collecting biowaste separately is a pre-requisite for PAYT with the possibility for the individual to influence the waste fee. However, there is no firm commitment in the legislation or in the plan to introduce such collection systems. There also appears to be a lack of market for compost. This could hinder a large-scale implementation of source separation of organic waste.
5	The data quality	There are inconsistencies in the data on recycling reported through the producer responsibility schemes: in particular the amount of packaging placed on the market appears very low in comparison to the amount of, and composition of, municipal waste as set out in the Plan. This implies that Croatia's actual performance in respect of recycling is likely to be lower than that indicated in the data returns currently being submitted.	This is likely to relate to issues in respect of the implementation of the producer responsibility scheme, and notably, the checks around the systems through which data is reported to the authorities.
6	Likely overcapacity in respect of residual waste treatment infrastructure	Croatia is planning to develop a network of regional waste management centres to meet a 50% recycling target using Method 2, which effectively leads to a national recycling rate of 30% or so. This may make it more difficult for the future higher recycling targets proposed by the Commission to be met.	Funding has not been focused at the right levels of the hierarchy (see issue2).

Number	Potential issue	Description	Reasons for the issue
7	Weak legislation on waste prevention	There is currently no stand-alone waste prevention plan in Croatia; prevention is dealt with as a part of the national Waste Management Plan. The recently issued plan does not appear to address the requirements of the 2013 Act on sustainable waste management in key elements such as there being a need for targets.	As with issue 1, the recent national plan appears to have been issued in some haste, linked to recent political changes.

3.0 Recommended Measures

Measure	Type of instrument	Responsibility	Estimated costs	Available EU funding	Anticipated impact
1) Further updates to the National Waste Management Plan					
Building on other work being undertaken by the Ministry elsewhere, the plan should include a clearer specification of what is required in respect of separate collection at the local level. The scope of materials covered should also be considered, and food waste (see below) given the prominence it deserves.	Administrative / legal	MZIOP	Low cost	N/A	Tackles issue 1, and also puts in place the framework for tackling other issues.

Measure	Type of instrument	Responsibility	Estimated costs	Available EU funding	Anticipated impact
<p>The plan should include a clear strategy for the management of municipal waste in future that is sufficiently flexible to allow future higher recycling targets (65% in 2030 as a % of all MSW) to be met. In doing so, the Plan needs to indicate how:</p> <ol style="list-style-type: none"> 1) Waste generation is expected to change over time; 2) How the management of waste which is generated is expected to change over time; 3) How this is translated into: <ol style="list-style-type: none"> a. Compliance with Landfill Directive targets; and b. Recycling rates as measured under Method 2 and as a percentage of all MSW. <p>Point 2 should take into account the infrastructure to treat source segregated biowaste (as required). The basis for the waste generation projections in the Draft Plan should also be clearly spelt out.</p>	Administrative / legal	MZIOP	Relatively low cost (significant investment already made in infrastructure)	EU funding available for the capital elements if required	Ensure there is sufficient infrastructure available to treat the additional biowaste that will result from the separate collection. Ensure compliance with Malagrotta ruling (if required). Ensure there is not overcapacity of residual treatment, which would tend to act against future increases in recycling.
<p>The Plan should consider approaches to collecting food waste in particular, and consider how to optimise collection systems in such a way as to capture food waste of high quality (purity). Furthermore, appropriate systems of standards and quality assurance for compost / digestion residuals might require development if these are not already being developed. It might also be worth considering approaches to market development to increase demand for compost, as has been undertaken in Flanders (by Vlaco) and in the UK (by WRAP).</p> <p>Put in place a plan to extend the roll out of door to door collection systems so that this covers at a minimum all households in the densely populated areas.</p>	Administrative	MZIOP / municipalities	Potential high cost	EU funding available for at least the capital elements	<p>Recycling rates will improve without the necessity to rely on MBT to meet the Directive targets. This will also result in better quality recyclate and compost / digestate.</p> <p>Although collection costs may increase, treatment costs will be reduced. The introduction of such schemes will help ensure the good performance of PAYT schemes.</p>

Measure	Type of instrument	Responsibility	Estimated costs	Available EU funding	Anticipated impact
Ensure that every target in the NWMP is linked to a clear strategy of indicating who is responsible for monitoring and implementation at the local level.	Administrative	MZIOP	Low cost to government	n/a	Greater accountability, increasing the likelihood of action taken at the local level.
2) Ensure clear devolution of responsibilities down to the local level					
Establish a framework for monitoring performance and consider introducing sanctions for not meeting targets devolved down to the local level. This is likely to be particularly important if the total cost of landfilling remains low to incentivise change (see recommendation 4).	Legal/ Administrative	MZIOP	Low cost to government	n/a	Introduction of a greater financial incentive that will drive future increases in recycling. This should make improved recycling systems more financially viable. If fee is set at the right level, it may not be necessary to mandate separate collection, as this could be driven by the market.
3) Reform of Funding mechanisms					
Undertake a review of the producer responsibility scheme considering the system costs and its fees to confirm the extent to which costs of recycling are covered by the fees from producers. Ideally the fees should be sufficient to cover the full cost of managing the un-recycled packaging. The fees set should be linked to the recyclability of the material; this requires a dialogue between the packaging industry and those running the scheme.	Legal / administrative	MZIOP	Low cost to government. Fees for producers may increase.	n/a	Greater incentives for packaging waste prevention. Increase in recycling of packaging through improvements in scheme funding and associated infrastructure.

Measure	Type of instrument	Responsibility	Estimated costs	Available EU funding	Anticipated impact
<p>Consider the introduction of a residual waste tax as a replacement to the current EPEEF. Lower levels of tax should be set for the stabilised output from MBT systems. The tax should also apply to waste sent for incineration (including that sent for export). Levels should be dictated in advance and should be set at a sufficient level to incentivise an increase in recycling – such as in the case of Greece. Alternatively, Croatia could consider the introduction of a well-designed version of the type of measure considered under Article 29 of the Waste Management Act 2013 (an incentive charge for reducing the amount of mixed MSW).</p>	Fiscal	MZIOIP	<p>Low cost to government. Fees for waste producers may increase.</p>		<p>Introduction of a greater financial incentive that will drive future increases in recycling. This should make improved recycling systems more financially viable. If fee is set at the right level, it may not be necessary to mandate separate collection, as this could be driven by the market as is the case in Čakovec.</p>
4) Actions to increase re-use and waste prevention activity					
<p>Government should consider integrating re-use activities into the existing EPR scheme. Other activities that should be reflected in the forthcoming waste prevention plan include actions tackling plastic bottles and food waste. Croatia could also consider developing re-use centres – such as those introduced in Slovenia, supported by developing a system of re-use credits helping to finance the activities of the third sector.</p>	Administrative / fiscal	MZOIP	Moderate cost to government	Funding available for capital items	<p>Will assist in the achievement of future targets, as well as contribution to landfill directive and waste framework directive targets.</p>
5) Roll out of PAYT systems					

Measure	Type of instrument	Responsibility	Estimated costs	Available EU funding	Anticipated impact
This should commence once well managed collection systems – using door to door services rather than bring based systems - are in place. It should build on the existing PAYT system for residual waste already in operation in parts of the country, but be extended to cover recyclables and organic waste collection.	Fiscal	MZIOP / municipalities	Dependent on the system to be implemented.	May be able to use structural Funds	To be considered but not introduced until waste collection and management systems further developed, so as to avoid fly tipping and associated issues.
6) Programme to support municipalities and educate householders					
Develop a programme aimed at raising the level of awareness of householders and businesses in respect of the need for recycling and waste reduction. This could be based on examples of campaigns undertaken in other countries with good recycling performance. The programme should be launched alongside the changes to collection systems.	Informative	MZIOP / CEA-AZO	Medium cost	Potentially, such as that from the ENPI CBCMED Programme.	Alongside improvements in recycling collection system, will improve recycling rates.
7) Improve data quality and transparency					
Undertake a review of calculation methods, including the definitions used when undertaking the calculations. Associated documentation should ensure transparency of calculation methods, and that there is read across between the different systems subject to the differing reporting requirements. The reasons for the low reported figure for the quantity of packaging waste generated needs to be investigated, and more realistic figures developed for the amount of packaging waste placed on the market. The calculations regarding the recycling rate for packaging waste also need to be reviewed.	Administrative, informative	MZIOP / CEA-AZO	Low	n/a	Addresses issue 5.

3.1 Timeline for introducing the Proposed Measures

	2015	2016	2017	2018	2019	2020
Updates to the NWMP		Announcement	In place			
Devolve responsibilities to the local level		Announcement	In place			
Review of producer responsibility scheme		Announcement			In place	
Residual waste tax		Announcement			In place	
Review data		Complete				
Support programme		Announcement		In place		
Actions to increase re-use / prevention		Announcement			In place	
Roll out of PAYT systems			Announcement			In place