

Case study _____

Shkodër, Albania

Europe

Shkodër

Albania

Population

202,254 (2020)

Size of the city

873 km square

Settlement type

Urban & rural

Year of Survey

2021

Total MSW Generation

162 kg/cap/year

MSW Collected

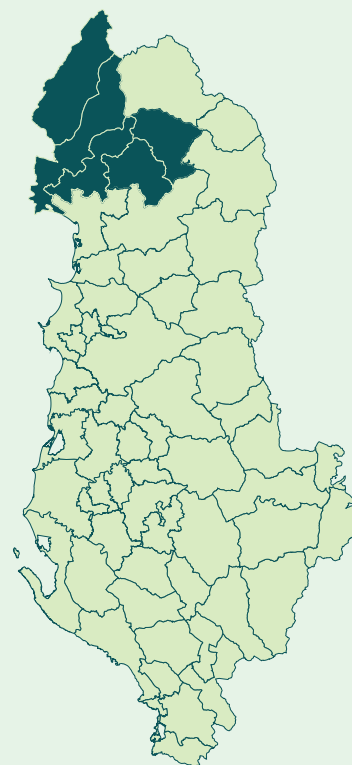
70-95%

Plastic Waste Generation

35 kg/cap/year

Plastic to water systems

1.6 kg/cap/year



Context and description

The municipality of Shkodër is composed of 11 administrative units, comprising 202,254 residents.

The municipality has a privileged proximity to water systems, as its main city (Shkodër) lies on the largest lake of the Balkans, which has the same name, and is also situated on the banks of the Buna, Drink and Kir rivers. The municipality spans from the Adriatic Sea to the foothills of the Albanian Alps.

The municipality of Shkodër offers diverse economic and societal realities, which are reflected in its SWM system. The entire municipality was studied by dividing it into 4 “clusters” to identify the upscaling potential of the WFD and capture the diversity of SWM operations. The clusters included (i) area receiving high collection coverage, (ii) area receiving low collection coverage, (iii) area with agricultural characteristic, and (iv) area with touristic activities.

This case study was done by GIZ project Marine Litter Prevention in the Western Balkans.







Survey Implementation Arrangement

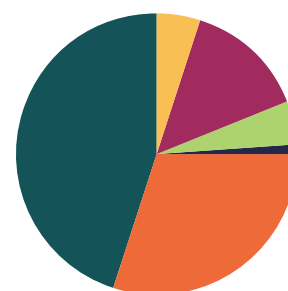
City	Shkodër
Financed by	GIZ
Implemented by	International and National consultant

Overview data

Population	202,254 (2020)
Waste generation rate, including commercial and institutional waste	0.9 kg/cap/day (high collection coverage) 0.3 kg/cap/day (agricultural)
Total MSW generation	113 tonnes/day (high collection coverage) 5.5 tonnes/day (agricultural)
Collection rate	94% (high collection coverage) 75% (agricultural)
MSW sent to disposal	106 tonnes/day / 94% (high collection coverage) 4 tonnes/day / 75% (agricultural)
MSW sorted for recovery	0.5 tonnes/day / <1% (high collection coverage) 0 tonnes/day / <1% (high collection coverage)
MSW managed in controlled facilities	0%
Plastic waste generation High collection coverage / Agricultural	5,772 tonnes/year 280 tonnes/year
Unmanaged plastic High collection coverage	394 tonnes/year 7% of the entire plastic waste generation
Unmanaged plastic waste Agricultural	76 tonnes/year 27% of the entire plastic waste generation

MSW composition at point of generation

 paper 5%	 metals 1%
 plastics 14%	 other 30%
 glass 5%	 organic 45%

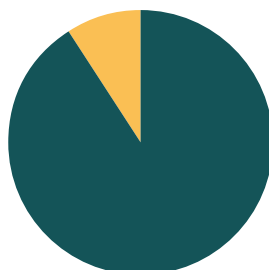


WFD results Shkodra City

Plastic waste generation: 5,772 t/y

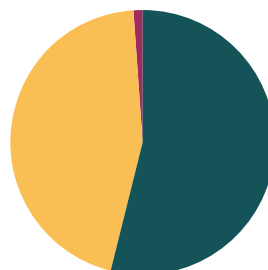
Fate of unmanaged plastic waste

Plastic to water systems



unmanaged
7%

managed
93%

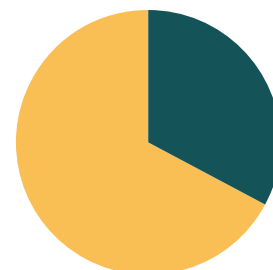


retained on land
54%

cleaned from drains
1%

ending up in water systems
45%

openly burnt
0%



contribution directly entering water systems
67%

contribution entering via storm drains
33%

Plastic waste to the environment (High collection coverage / Agricultural)

394 tonnes/year

7% of the plastic waste generated

Plastic to water systems

175 tonnes/year

258 trucks

Plastic to water systems per person

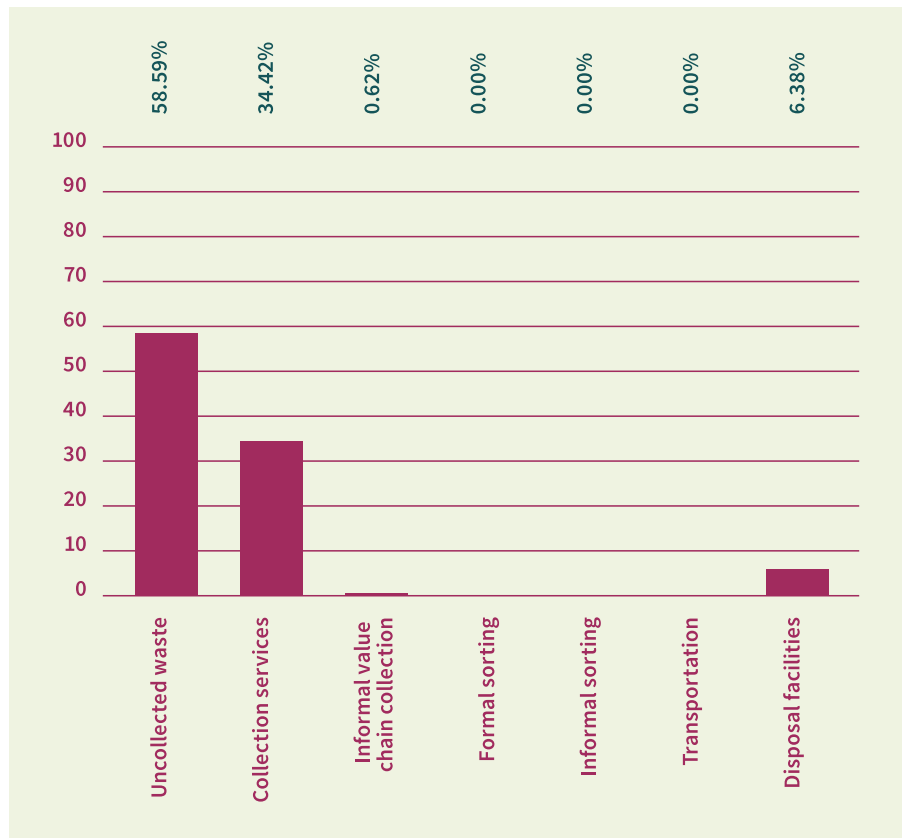
1.4 kg/person/year

47 PET bottles per person

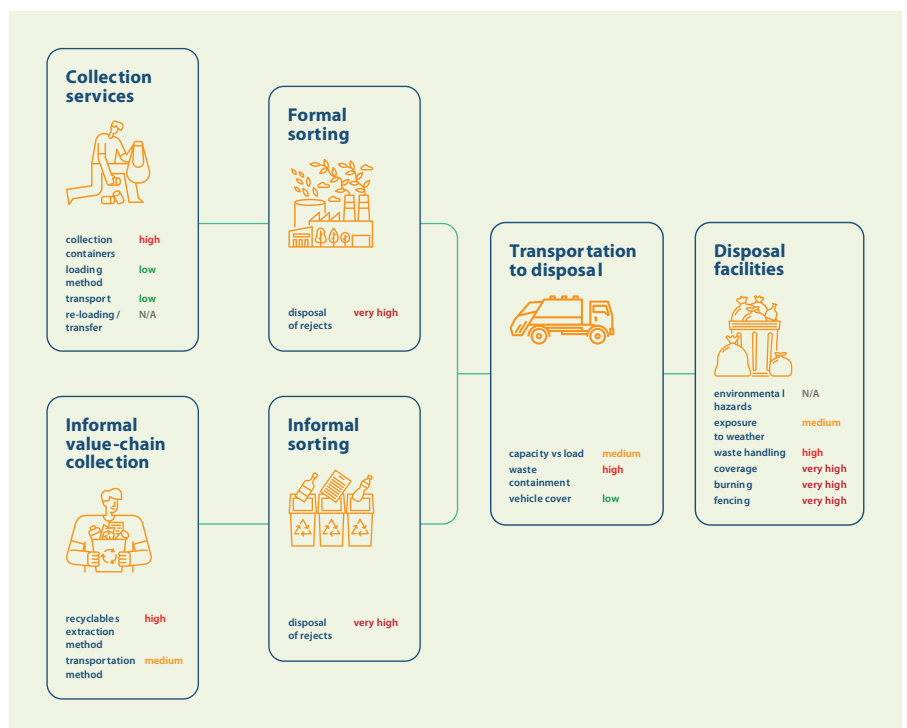
WFD Results in Shkodër



Contribution to unmanaged plastic waste by SWM stage



Plastic leakage potential levels per leakage influencers in Shkodër City

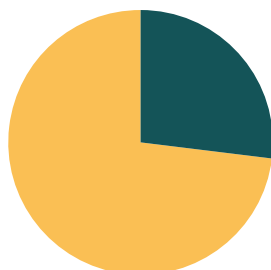


WFD Results Agricultural Area

Plastic waste generation: 280 t/y

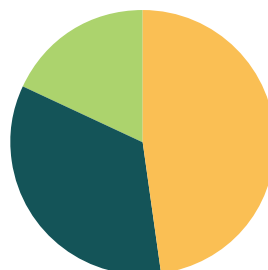
Fate of unmanaged plastic waste

Plastic to water systems



unmanaged
27%

managed
73%

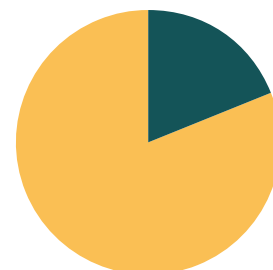


retained on land
34%

cleaned from drains
0%

ending up in water systems
48%

openly burnt
18%



contribution directly entering water systems
81%

contribution entering via storm drains
19%

Plastic waste to the environment	76 tonnes/year	27% of the plastic waste generated
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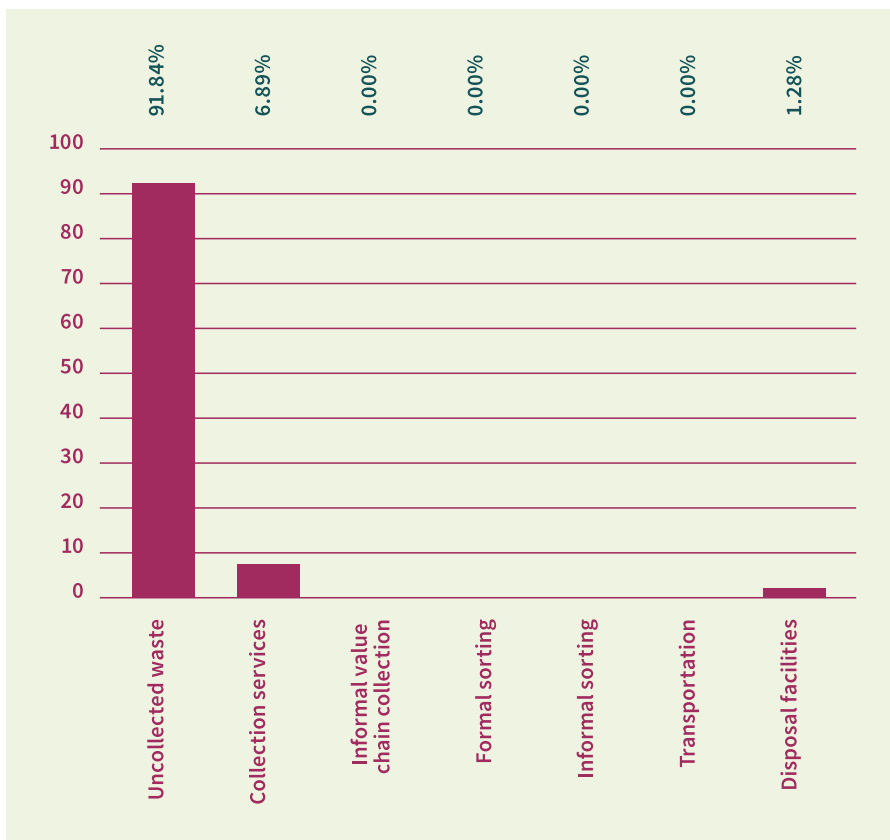
Plastic to water systems	36 tonnes/year	53 trucks
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Plastic to water systems per person	2.0 kg/person/year	66 PET bottles per person
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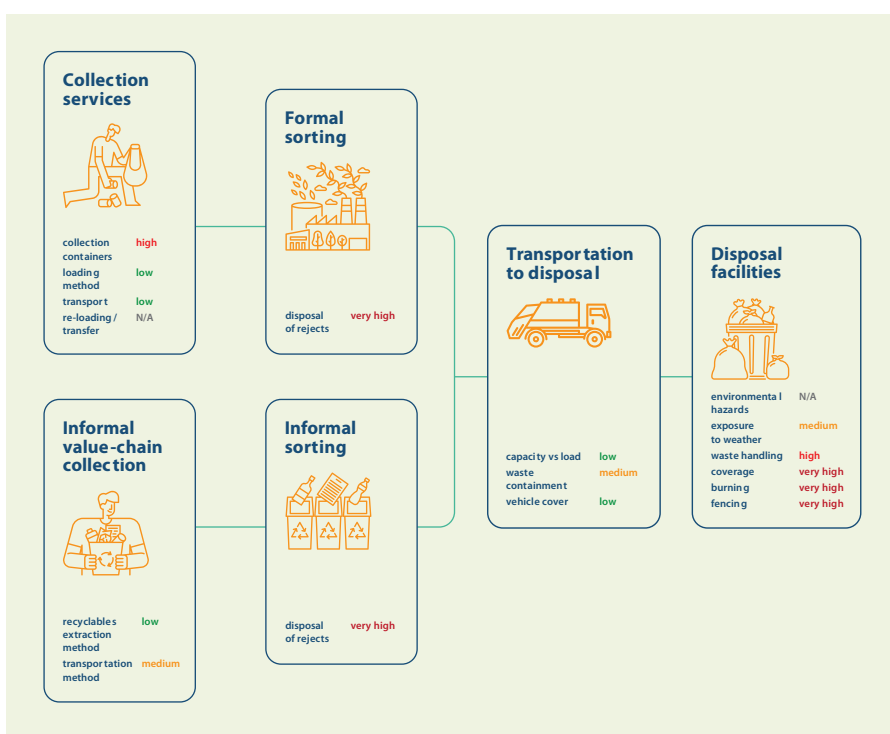
WFD Results in the Agricultural Area of Shkodër



Contribution to unmanaged Plastic waste by SWM Stage



Plastic leakage potential levels per leakage influencers in Shkodër Agricultural Area



Lessons Learned & Challenges

- The clustering approach is a useful when a city has diverse SWM realities. Although it duplicates the workload, it offers more precise information;
- Having a local guide saves a large amount of time and effort. Since contact with local stakeholders is more trusted, any plastic pollution hotspots are found more easily;
- Very little data is available for the role of the informal recovery sector and approaching this sector can be challenging, especially when they are in conflict with local authorities.

Use of WFD / Triggered Change

- The application of the Step 4 of the WaCT, “MSW received by recovery facilities”, provides reliable information on the quantity of recyclables recovered, especially when the informal sector dominates the recovery value chain;
- The use of the WFD allowed the municipality to understand the mechanisms that release plastics into the environment, and the need to expand collection services to rural areas and raise awareness;
- The WFD results have been used in national events as a basis for opening discussions on tackling plastic pollution emissions. The Shkoder case study pioneered an approach to Upscaling results into wider regional assessment.