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„Holistic approach to waste management in the transition to circular economy “

LIFE22-GIE-BG-LIFE HA2WASTE

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D4.1.

REPORT ON THE FIRST SOCIOLOGICAL SURVEY OF THE POPULATION

February 2024



PROJECT SUMMARY SHEET	
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1 Introduction

Project "*Holistic approach to waste management in the transition to circular economy*" (LIFE HA2WASTE) is a three-year project financed by Programme LIFE Environment (Nature & Circular Economy) of the EC and implemented on the territory of the town of Pomorie, Bulgaria.

The overall goal of the project is to develop, implement and promote a country-innovative holistic approach to waste management in municipality Pomorie in order to achieve the objectives of EC policy and legislation on circular economy and waste through the application of good European practices, particularly the practice of the city of Parma, Italy.

The project includes implementation of 5 Work Packages:

WP1. Project management and coordination

WP2. Preparatory actions

WP3. Introduction of an innovative system for transition to circular waste management

WP4. Awareness raising and participation of local stakeholders

WP5. Sustainability, replication and use of project results

This document represents **Deliverable 4.1. Report on the first sociological survey of the population**, elaborated within *WP4. Raising the awareness and participation of local stakeholders, Task 4.1. Sociological surveys*.

The document present the results of the first sociological survey, carried out in December 2023 among the population in the town of Pomorie. The objective was to obtain statistically significant information about the general level of knowledge about the circular economy and waste, personal practices for prevention and separate collection of waste, and the views regarding issues relating to waste management.

2 Technical specifications

■ Characteristics of the sociological survey

Target group for surveying - households in the town of Pomorie

Survey method: a direct standardized face-to-face interview in the respondent's home with a pre-prepared questionnaire

Scope - a total of **867** persons were interviewed.

Respondents: adult representatives from households who can provide the sought-after quantitative and qualitative information on the questions from the survey questionnaire.

Period of field work – December 2023 – January 2024

Sampling: Town divided in five areas/quarters, each representing the individual samples in which the selection of households is made. The number of the latter is different in each sample. The selection of the specific respondent was carried out in compliance with set requirements. In each household, a person is interviewed who is a permanent household member, is 18 completed years old, is adequate and well informed about the attitudes and expectations of the household. The distribution of respondents across the town is as follows:

Town area	Number of respondents	Share (%)
Sveti Georgi	131	15,1
Svoboda	486	56,1
Ruski	21	2,4
Old town	131	15,1
Town centre	98	11,3
TOTAL	867	100,0

■ Survey toolkit

- standardized questionnaire;
- written instructions for the interviewers, guaranteeing unequivocal behaviour and strict compliance with the established methods for collecting and registering data for achieving reliability of survey data;
- report card with contact information of the respondents and the date of conducting an interview with them.

▪ Control over the work of interviewers and collected data

During fieldwork - control by a supervisor over the work of interviewers, check of the first filled in questionnaire, identification and correction of mistakes, ad hoc briefing in case of occurring difficulties.

After the survey - logical review and control applied to 100% of filled in questionnaires.

▪ Data processing

The standard procedure for entering and processing survey data was followed, including:

- preparing a special matrix in SPSS software for entering the primary empirical data;
- entering the data and generating a system file;
- logical data control, cleaning the system file to remove technical input errors.

3 Profile of respondents

The socio-demographic profile of the respondents in the sociological survey comprises characteristics such as age, gender, education, economic activity, type of housing, income status. Some questions, such as gender, age and education, control the observation of the chosen random approach for selecting respondents.

	Number	Share (%)
Gender		
Male	337	38,9
Female	527	60,8
No answer	3	0,3
Education		
Primary	1	0,1
Lower secondary	5	0,6
Upper secondary	414	47,8
College	44	5,1
University	396	45,7
No answer	7	0,8
Age		
18-29	79	9,1
30-44	279	32,2
45-59	293	33,8
≥ 60	213	24,6
No answer	3	0,3

By economic activities

	Number	Share (%)
Student	28	3,2
Working on an employment contract	561	64,7
Self Employed	54	6,2
Freelance	37	4,3
Unemployed	20	2,3
Housewife	15	1,7
Retired	149	17,2
No answer	3	0,3

By type of housing

	Number	Share (%)
House	318	36,7
Flat	544	62,7
Other	2	0,2
No answer	3	0,3

By income status of the household

	Number	Share (%)
Very good	65	7,5
Good	487	56,2
Average	279	32,2
Below average	24	2,8
Can't decide	8	0,9
No answer	4	0,5

By areas/quarters in the town

Area/quarter	Number	Share (%)
Sveti Georgi	131	15,1
Svoboda	486	56,1
Ruski	21	2,4
Old town	131	15,1
Town centre	98	11,3
Total	867	100,0

4 Key findings

The analysis of the result of the sociological survey formulates the following key findings:

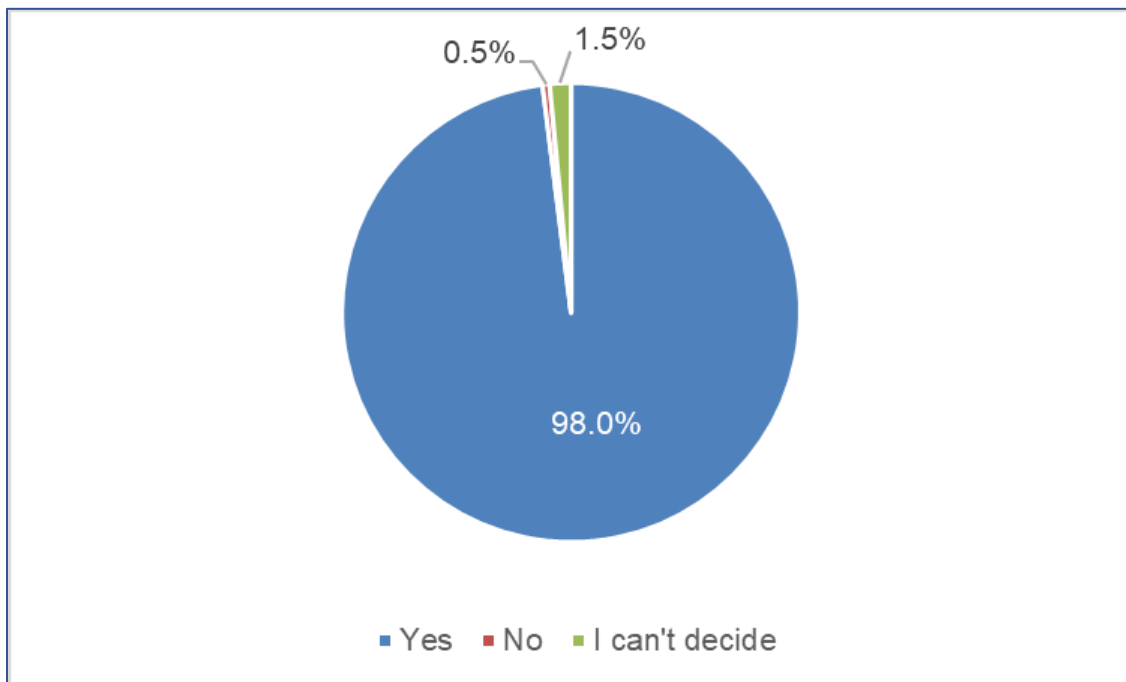
- Almost all respondents (98%) agree that inappropriately managed waste has a negative impact on the environment.
- A prevailing part (almost 70%) of respondents believe residents have a primary responsibility for prevention and separate collection of municipal waste.
- In general, respondents are satisfied with the quality of municipal waste services - almost 60% of respondents evaluate the services as very good or good. One third of respondents think that the services need some improvement, and only 7,3% are not satisfied.
- Residents provide suggestions for further efforts by the municipality to improve waste management. Most often mentioned suggestions include placement of more containers for separate collection of recyclable waste and imposing sanctions for illegal dumping of waste.
- Regarding the quantity of waste types generated by households, paper (incl. packaging) range highest, followed by food waste and plastics.
- Respondents share that they experience some difficulties disposing of some types of waste, mostly bulky waste and waste from electrical and electronic equipment (WEEE).
- Currently, only 9% of respondents regularly separate their household waste. About 38% of respondents separate their waste sometimes or rarely and 52,9% do not separate household waste at all.
- The main reasons mentioned by surveyed residents who do not separate their household waste are the lack of suitable conditions for separate collection in the town (specifically, shortage of containers for separate waste collection), as well as the lack of time and/or suitable home conditions.
- Asked whether their households would collect separately their waste at home in separate bags/containers to be collected door-to-door by the municipality, 59.9% state that they will do it and 22.5% would do it if the municipality provides incentives. Only 5% declare a firm unwillingness or lack of inclination to collect their household waste separately. The share of respondents who can't decide is quite high and should not be neglected.
- Payment of the waste fee is not a problem for 82% of the respondents. 17.5% experience some difficulties to pay the fee, and the majority of them believe that it is too high or that it does not correspond to the quality of the services or that it is determined in an unfair way.
- Respondent definitely prefer electronic channels to receive information on household waste. The municipality's website is the most preferred source of information for $\frac{3}{4}$ of respondents, followed by Facebook that was mentioned by $\frac{1}{4}$ of respondents.

5 Survey results

This section summarizes the views of the respondents of the survey on investigated issues related to waste management in the town of Pomorie.

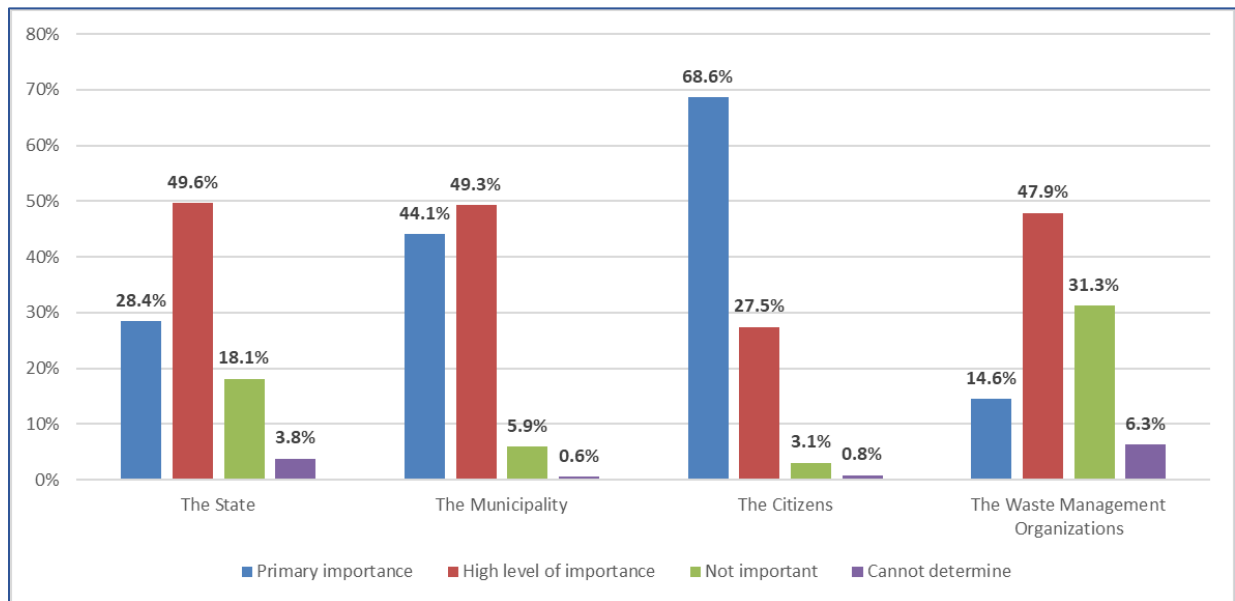
- Question 1 asks respondents to express their views whether inappropriate handling of waste harms the environment. Almost all residents give a positive answer. Less than 1% consider that waste disposal does not have a direct impact on the state of the environment, and 1.5% of respondents indicate that they could not decide.

Q1. Do you agree that incorrectly managed waste has a negative impact on the environment?



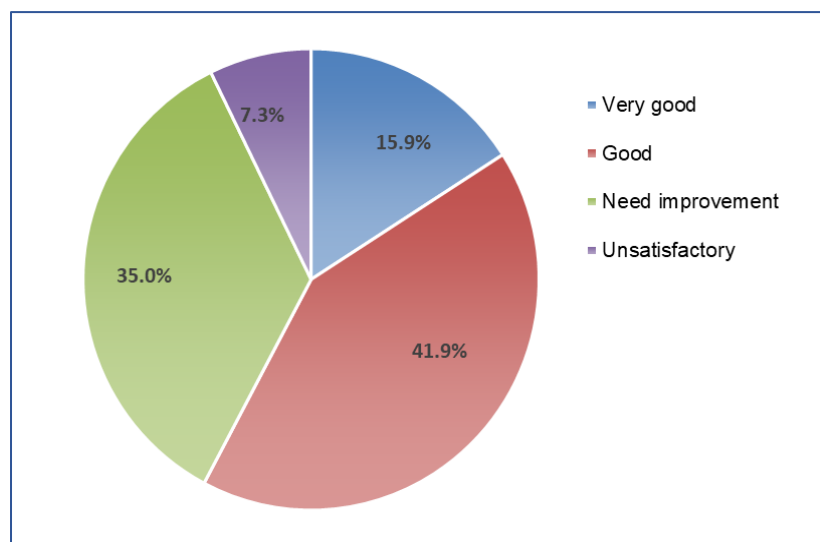
- The second question asks the respondents to prioritize who is responsible for prevention and increase of the share of separately collected waste, choosing between the state, the municipality, residents and companies providing waste services. The results show that over 2/3 of the respondents believe that residents have the greatest responsibility for prevention and separate collection of waste. The municipality is mentioned as second by priority, followed by the state and the companies providing waste collection and treatment services.

Q2. Please prioritize who you think is responsible for preventing the generation of household waste and increasing separately collected waste?



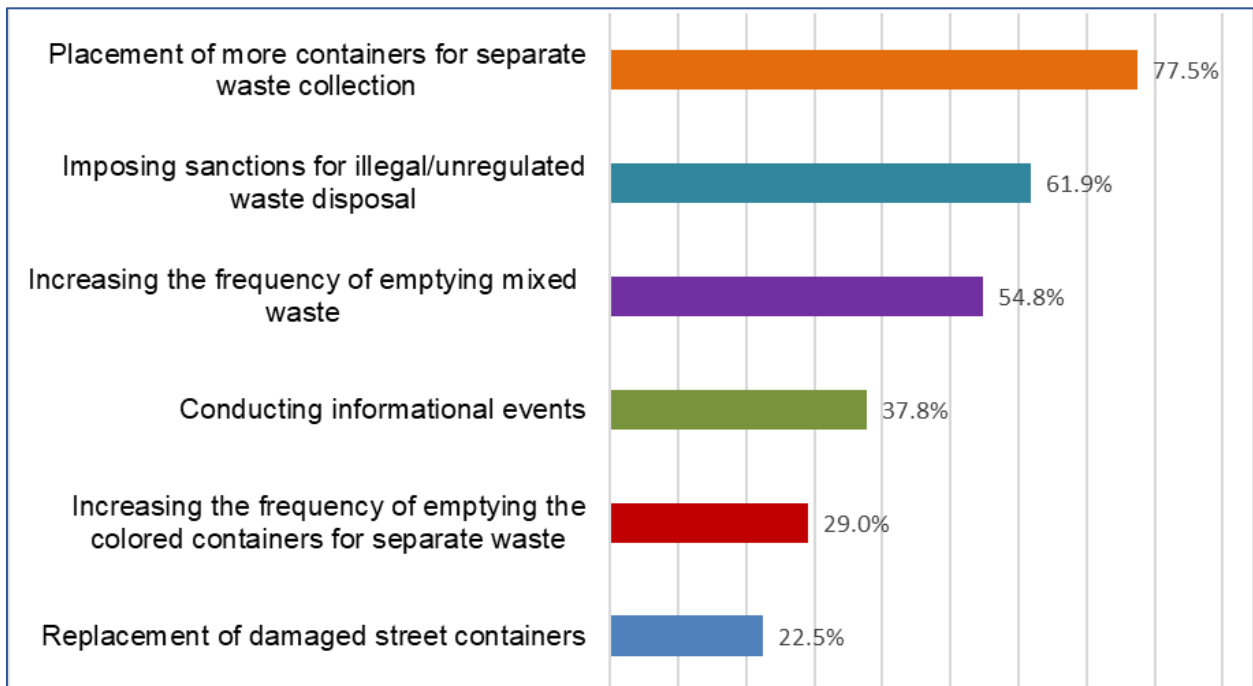
- The third question of the survey investigates the views of respondent regarding the waste services provided by the municipality. The answers given by the respondents for the current level of the services are presented in the following figure. The results show a relatively high degree of satisfaction with the quality of waste management services provided in the town – the majority of respondents evaluate the services as very good or good. A little over 1/3 of the respondents believe that there is a need of improvement. The share of those who evaluate provided services as unsatisfactory is small (7.3%).

Q3. How do you evaluate current waste services provided in the town of Pomorie?



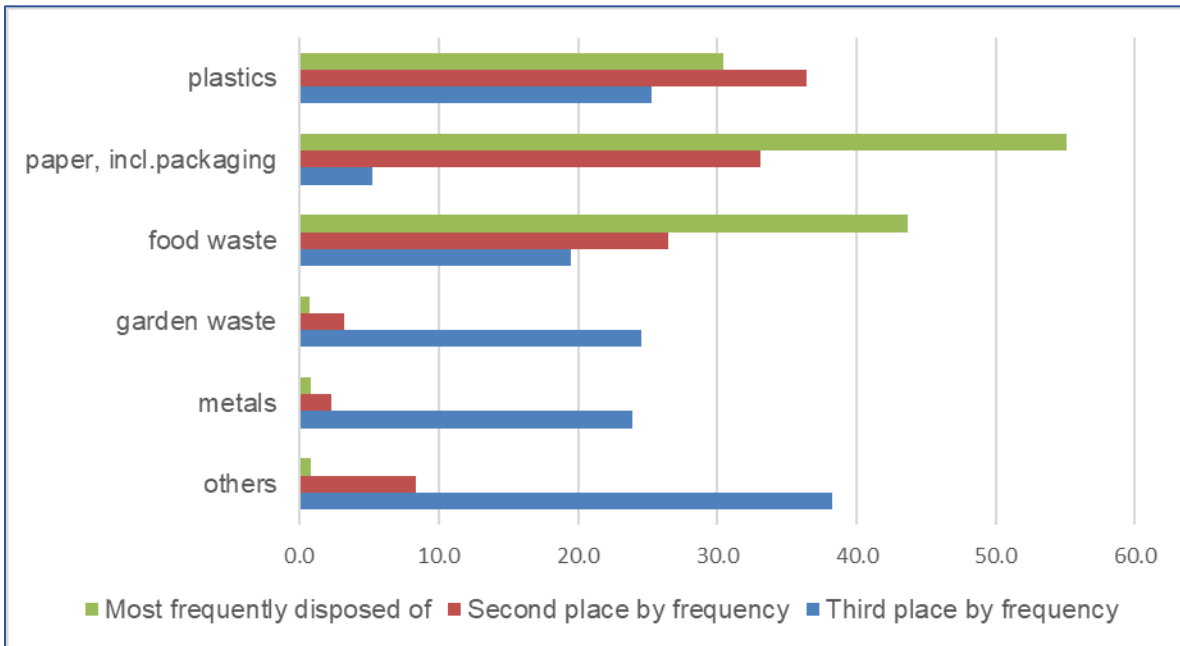
- Respondents were asked to share their views about what additional efforts should be taken by the municipality to improve municipal waste services. Respondents were instructed that they can give more than one answer. A majority of respondents believe that the municipality should focus on placing more containers for collection of recyclable waste, imposing sanctions for illegal/unregulated disposal of waste and increasing the frequency of emptying the containers for mixed waste. It should be mentioned that over 1/3 of respondents think that the municipality should conduct more information activities.

Q4. What are the most important directions in which the municipality should make additional efforts in the field of waste management?



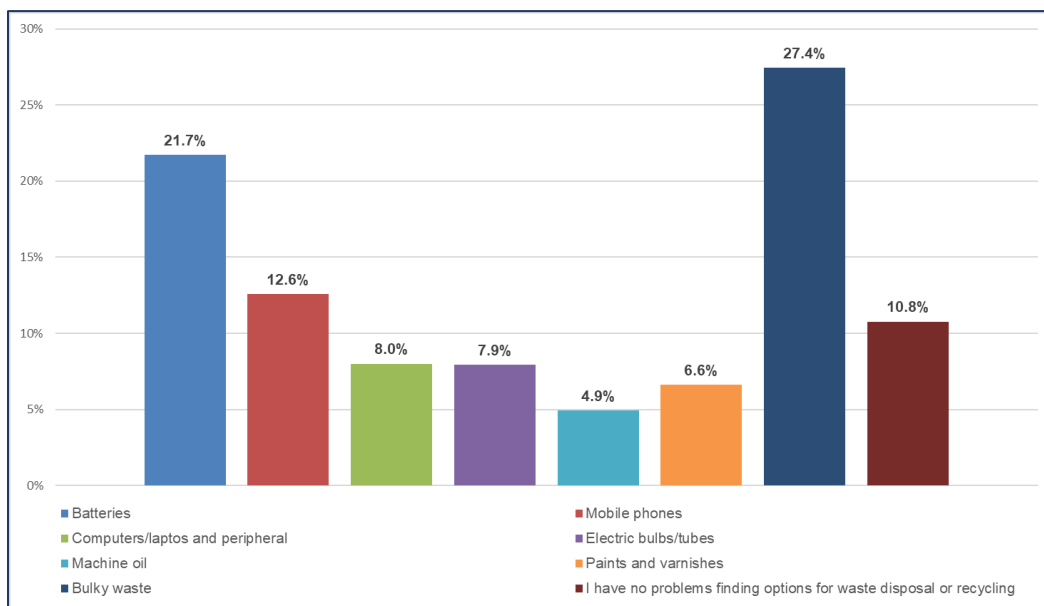
- Respondents were asked to range the three types of waste that their households dispose of most often. The answers show that paper waste, incl. packaging, is the most frequently disposed type of waste, mentioned at first place by almost 42% of respondents, followed by food waste mentioned by 1/3 of respondents and plastics – by 1/5 of respondents.

Q5. What are the three types of waste that your household most often throws away?



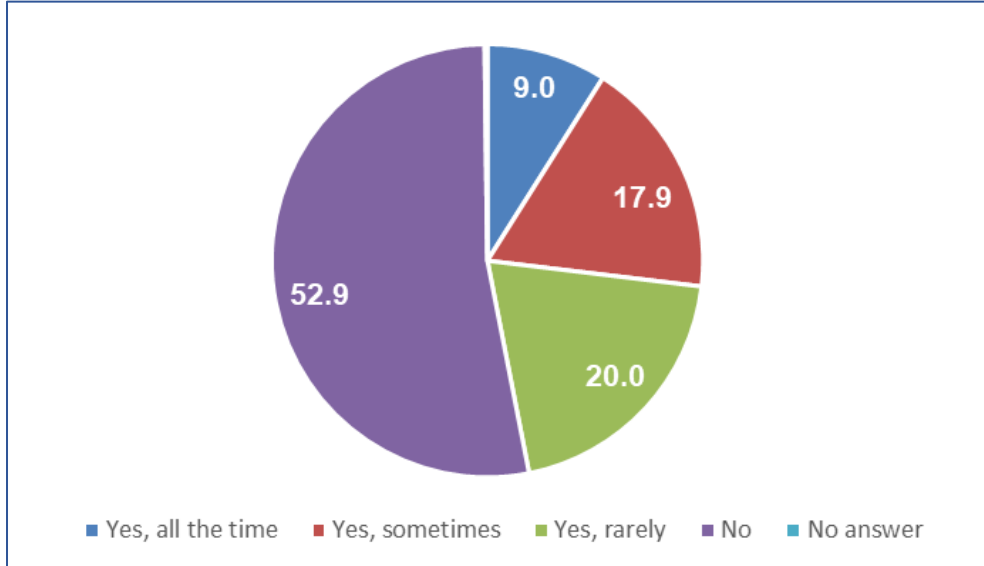
- When asked what the types of waste are that households experience difficulties to find options for disposal, respondents point out a range of waste products. The analysis of given answers shows that almost all products, for which residents have troubles to find a disposal place, fall in the group of electrical and electronic equipment (WEEE). Exception is bulky waste, which by the way is most often mentioned.

Q6. What waste products do you have trouble finding disposal or recycling options for?



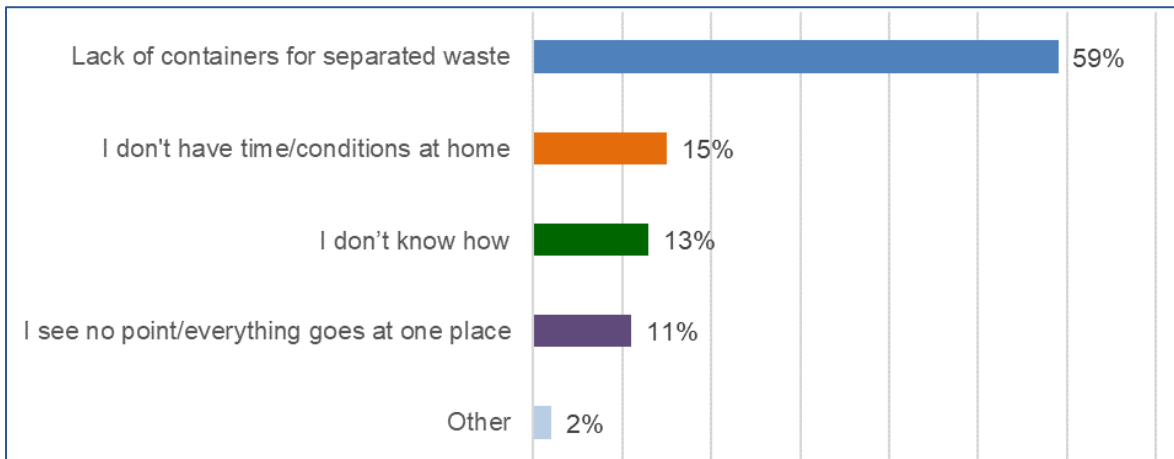
- More than half of respondents do not separate their waste at home. Only 9% of respondents separate waste at home regularly, and other 40% do it sometimes or rarely.

Q7. Do you personally collect your household waste separately at home?



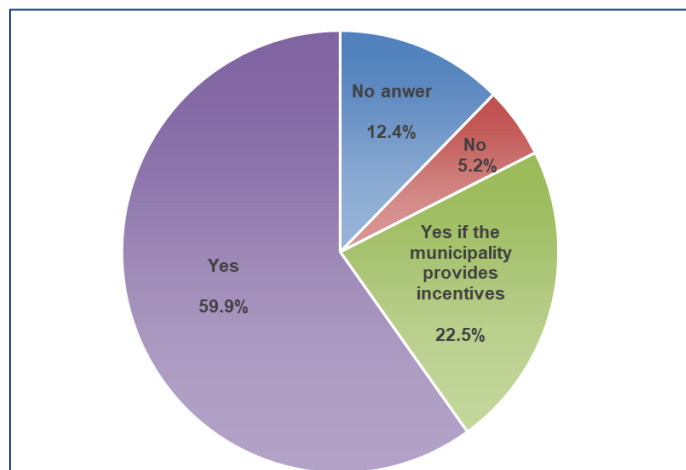
- Asked about the reasons for not separating the waste by types, the majority of respondents who do not separate their waste mention lack of created conditions in the town, and specifically – lack of containers for separated waste in the neighbourhood/shortage of such containers in the town. Various other reasons are mentioned, as seen in the Figure below. The interpretation of the answers show insufficient knowledge about proper separation of waste at home and what happens to separated waste after it has been collected. It deserves mentioning that 11% of the respondents indicated that they do not find meaning in separate waste collection, primarily because of their belief, that separated waste is removed, transported and subsequently treated together.

Q8. If you do not consistently separate waste by types, what is the reason?



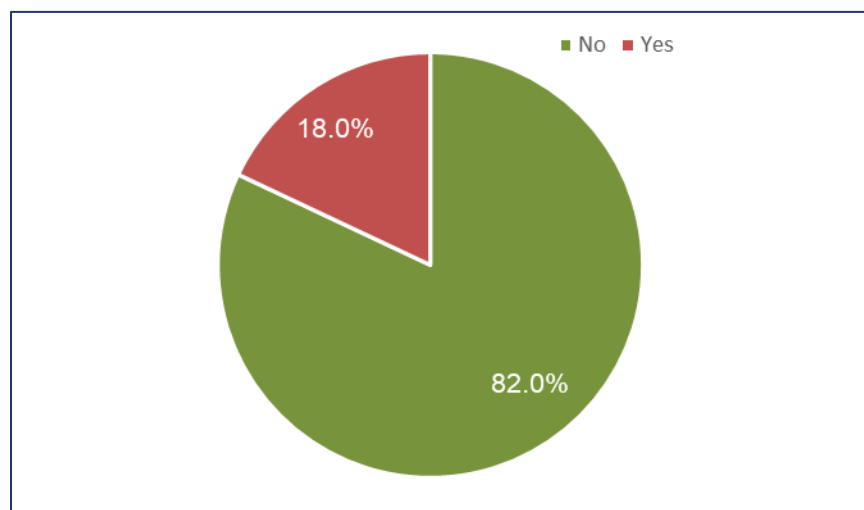
Question 9 of the survey seeks the views of the surveyed residents of Pomorie to collect household waste separately at home in separate bags/containers to be collected door-to-door by the municipality. As seen at the figure below, the majority of respondents (over 82%) state that they will do it or do it if the municipality provides some incentives. Only 5.2% express a strong reluctance to collect their household waste separately.

Q9. Would you collect waste separately at home in bags/containers to be collected on your door by the municipality?



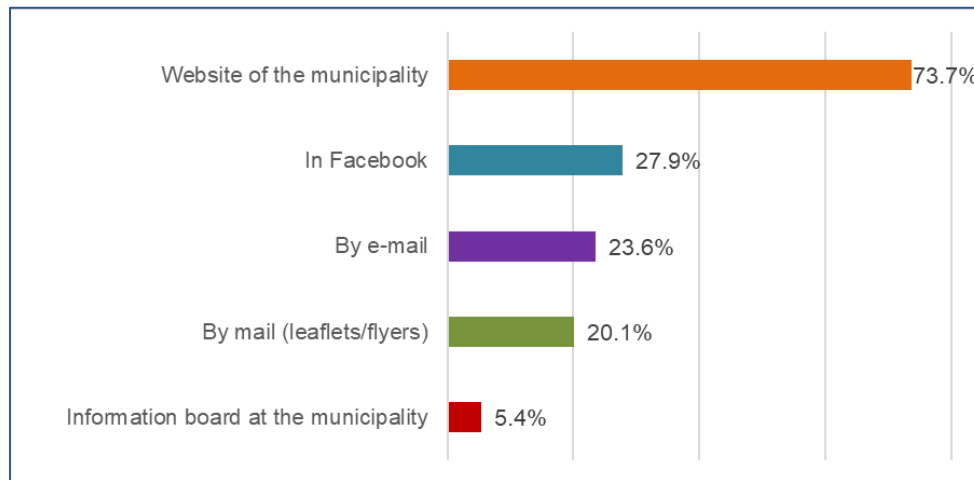
- Paying the current waste fee is not a problem for 82% of the respondents. The other 18% experience some difficulties to pay the fee because “it is high”. As the question is open ended for respondents who experience difficulties, the responses reveal additional qualitative information indicating that respondents consider the current method of determining the waste fee on the basis of property tax as unfair or that the fee does not correspond to the quality of provided services.

10. Is it difficult for you to pay the household waste fee?



- Regarding preferred channels for receiving information on matters relating to household waste management, the survey shows that residents strongly prefer digital channels of information. Almost $\frac{3}{4}$ of respondents point out the website of the municipality as the most preferred information source. Facebook and e-mail are next in preference, mentioned by about 1/4 of respondents. Printed materials and information boards in the municipality building are less preferred.

Q11. How do you prefer to receive information on matters related to household waste



- The last open question in the questionnaire invites the respondents to share something that they consider important but not included in the previous questions. Recommendations made by some residents include:
 - strengthening the control over unregulated waste disposal, over pet owners, over garbage collection companies
 - making additional efforts for timely removal of waste during the summer season
 - creating conditions and disseminating information about disposal of specific types of waste products (e.g. medicines with an expired shelf life)

Annex: Survey questionnaire

1. Do you agree that incorrectly managed waste has a negative impact on the environment? (choose one answer)

Yes	1
No	2
I can't decide	9

2. Please prioritize who you think is responsible for preventing the generation of household waste and increasing separately collected waste.

(1 - of decisive importance; 2 - with great importance; 3 - is irrelevant; 4 I can't decide. You may assign the same rating to more than one of the specified entities)

The state	
The municipality	
The residents	
The companies providing waste services	
I can't decide	

3. How do you evaluate current waste services provided in the city of Pomorie? (choose one answer)

Very good	1
Good	2
Need improvement	3
Unsatisfactory	4
I can't decide	9

4. What are the most important directions in which the municipality should make additional efforts in the field of household waste management? (you may choose more than one answer)

Placing more containers for separate collection	1
Increasing the frequency of mixed waste collection	2
Increasing the frequency of emptying recyclable waste containers	3
Replacement of street containers	4
Conducting information events	5
Imposing sanctions for incorrect/illegal disposal of waste	6
I can't decide	9

5. What are the three types of waste that your household most often throws away?

(1 – the most frequently discarded waste; 2 - second most frequently disposed waste: 3 - third most frequently disposed waste)

Food waste	
Paper waste, incl. packaging	
Plastic waste, incl. packaging	
Waste containing non-ferrous and ferrous metals	
Garden waste	
Others	

6. What waste products do you have trouble finding disposal or recycling options for?
(you may choose more than one answer)

Batteries	1
Mobile phones	2
Computer/laptop and computer peripherals	3
Electric bulbs/tubes	4
Machine oil	5
Paints and varnishes	6
Bulky waste - furniture, mattresses, large electrical appliances	7
I have no problems finding recycling or disposal options	8

7. Do you personally collect your household waste separately at home? *(choose one answer)*

Yes, all the time	1
Yes occasionally	2
Yes, but rarely	3
No	4

8. If you do not consistently separate waste by type, what is the reason?

.....

9. Would you collect waste separately at home in bags/containers to be collected on your door by the municipality?

Yes	1
Yes, if the municipality provides incentives	2
No	3
I can't decide	9

10. Is it difficult for you to pay the household waste fee?

Yes	1
No	3

If "YES", please explain why

.....

.....

11. How do you prefer to receive information about disposal, removal, separate collection, organized campaigns and other matters related to household waste?

You may indicate more than one answer

from the website of the municipality	1
by e-mail	2
on Facebook	3
by mail leaflets/paper leaflets	4
from information boards in the municipality building	5

SOCIO-DEMOGRAPHIC CHARACTERISTICS

12. Gender:

1. Male
2. Female

13. Age in completed years:

1. 18-29
2. 30-44
3. 45-59
4. ≥ 60

14. Education level:

1. Primary
2. Lower secondary
3. Upper secondary
4. College
5. University

15. You are:

1. Student
2. Working on an employment contract
3. Self Employed
4. Freelance
5. Unemployed
6. Housewife
7. Retired
8. No response

16. What type of property do you live in?

1. House
2. Flat
3. Other

17. How would you evaluate the income status of your household?

1. Very good
2. Good
3. Average

4. Below average

5. Can't decide

18. Tell us something you think is important, but we haven't asked you so far.

.....

Thank you for your cooperation.

You can find out about the changes in waste management on the website of the municipality of Pomorie.