

ANALYSIS REPORT OF AWARENESS RESEARCH, ATTITUDES AND RELATED BEHAVIORS WITHIN THE USE OF WATER BY RESIDENTS OF BYDGOSZCZ-TORUN METROPOLITAN AREA

Public Perception survey

D.T.3.1.4

March 2020





DATA ANALYZIS

There is a general awareness of the need to save water, many of the respondents use popular methods of saving water, focusing mainly on individual habits, such as turning off the water or equipping bathrooms and kitchens with appropriate water saving devices.

This is motivated by both the environment and their own savings.

Respondents are also very open to use more advanced water recovery systems at the level of both the individual household and the entire city. They also look favorably at introducing greenery to the city as a method of using rainwater (here on the example of green roofs).

According to the results of the survey, it can be concluded that the respondents do not know the real values or the concept of a water footprint.

When it comes to the fears of the respondents, they seem to coincide with the recent negative climate issues. For example, floods in the minds of respondents are considered to be a weak threat where torrential rain or drought are treated as a greater threat.

Conclusions and recommendations:

The respondents are aware of the necessity of sustainable water resources management and are open to changes. It would be advisable to continue campaigns aimed at raising public awareness of the possibilities and solutions available, where you can additionally supplement this with knowledge on how to implement these solutions on a regional and local scale through bottom-up initiatives (petitions and contact with local governments with a request to implement the above solutions).

Awareness of the water footprint and the impact of other activities not directly related to the use of water (e.g. shopping habits) on overall water management and exploitation of water resources should definitely be increased.



1. BACKGROUND

The data of this report was collected between January 20 and March 20, 2020 in paper and electronic form among the inhabitants of the Bydgoszcz-Toruń metropolitan area. Total of 309 responses were collected from which 291 from residents of the Bydgoszcz-Toruń metropolitan area. Only the responses from residents of the above-mentioned area are taken into account in the analysis.

1.1 Gender

65% of survey participants were women, where 35% of participants were men.

1.2 Age

The age range of survey participants began from 16 years old and up with no restrictions.

The age distribution was as follows:

people in the age range 16-25: 14%

people in the age range 26-65: 78%

people in the age group 66+: 9%

1.3 Residence

According to available statistics, among the inhabitants of the Bydgoszcz-Toruń agglomeration, whose number of residents (depending on the methodology used to draw the boundaries of the agglomeration) of 872 154, 41% of residents live in Bydgoszcz (356 177) and 24% in the city of Toruń (205,312). Inhabitants of the city of Bydgoszcz are definitely over-represented in the overall analysis of the survey, as they constitute 82% of respondents, where the inhabitants of Toruń are only 2% and the rest (16%) of respondents live in other locations.



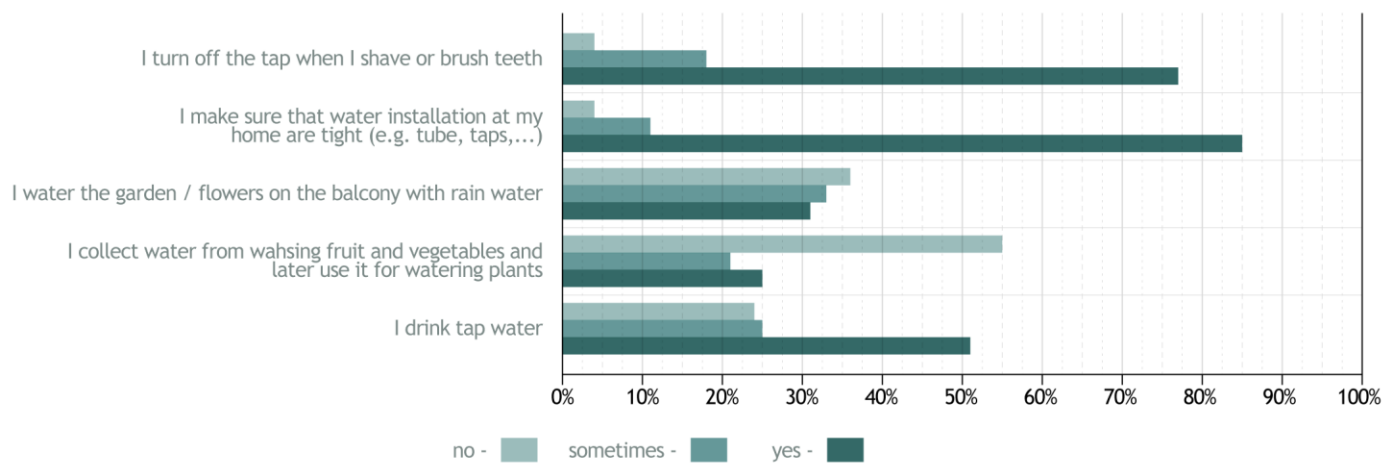
2. PERSONAL USES

2.1 Habits

96% of respondents turn off the water while shaving and brushing their teeth, and 96% ensure that the water system is free of leakage and in good condition. 76% of respondents drink tap water. 64% of people use rainwater for plants watering.

Only 45% of people reuse used domestic water.

How do you use water at home?



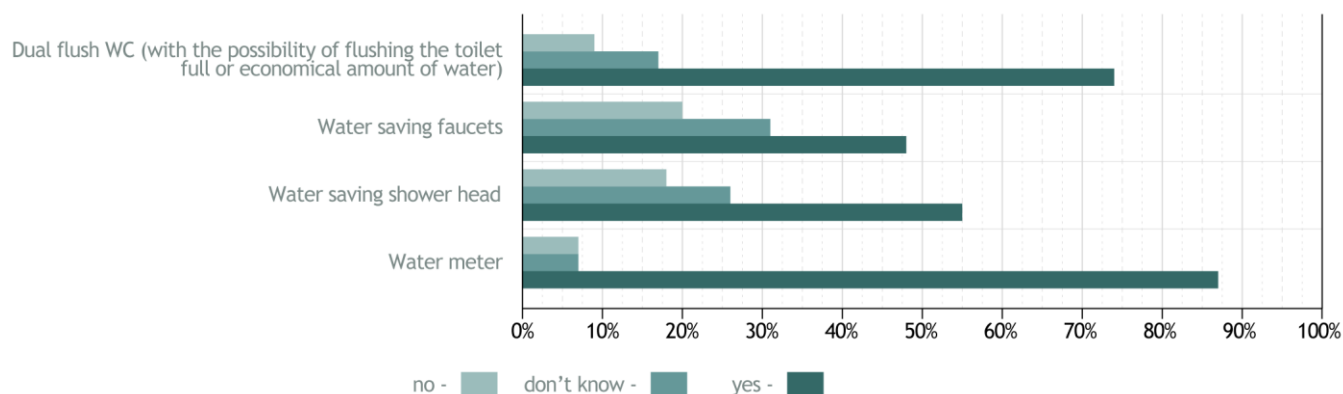
2.2 Facilitie

Many households have facilities to save water. 74% of households have dual flush toilet, 55% and 48% of flats have, respectively, shower head and water saving faucets.

87% have a water meter.



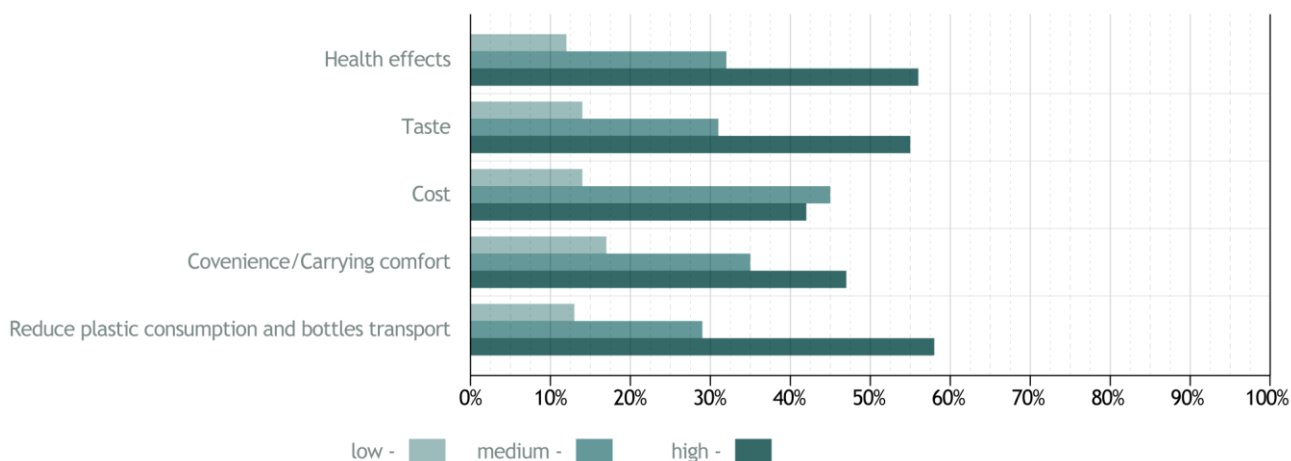
Do you have in your household these facilities?



2.3 Bottle or tap?

Highly influencing factors between tap and bottled water consumption are reduce of plastic consumption and bottle transport (58%), health effects (56%) and taste (55%).

When you choose between tap water and bottled water, how important are the following factors?

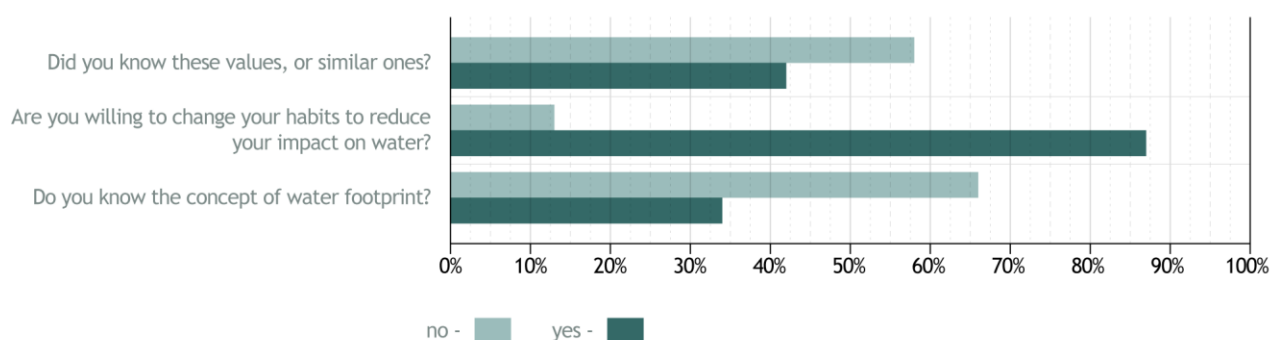


2.4 Water footprint



Many respondents did not know the concept of water footprint beforehand (66%) and most did not know the volumes of water usage in the production of consumer products (58%). Vast majority of respondents declared their willingness to change their habits (87%) to save water used in the production of goods.

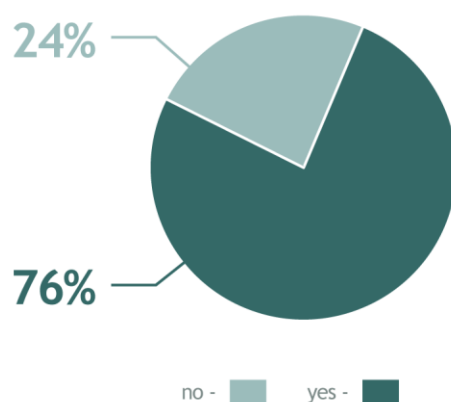
Water is needed to manufacture and transport the products we use or eat. e.g: the production of a sheet of paper requires 10 liters of water, steak - 2500 liters, 100 grams of bread - 160 liters, cups of coffee - 130 liters, one T-shirt needs 1000 liters of water.



2.5 Annual costs

Most respondents are aware of their expenses (76%) although this means that not everyone who has a water meter (87%) controls their expenses.

Do you know the amount of your annual expenses for running water?

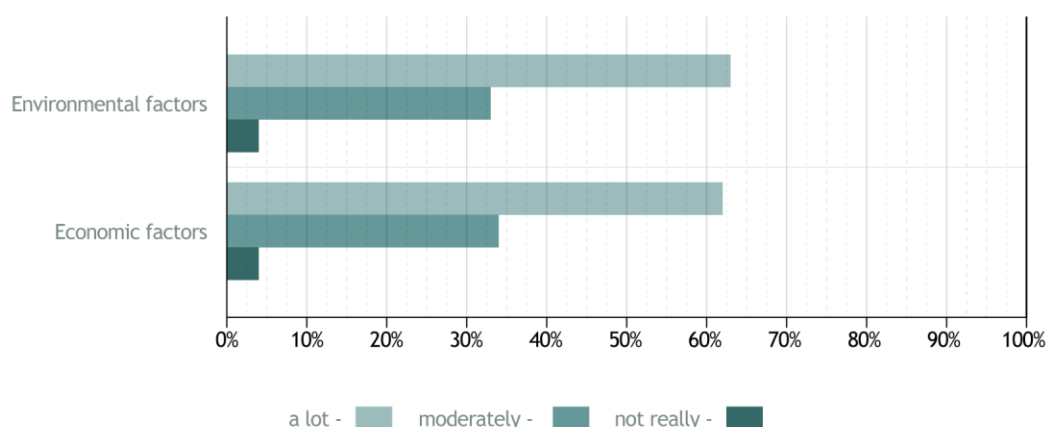




2.6 Motivation

For most respondents, environmental factors (63%) and economic ones (62%) are a highly motivating considerations for saving water. Only 4% of respondents considered both of these factors to be weakly motivating.

Does these factors motivate you in saving water?

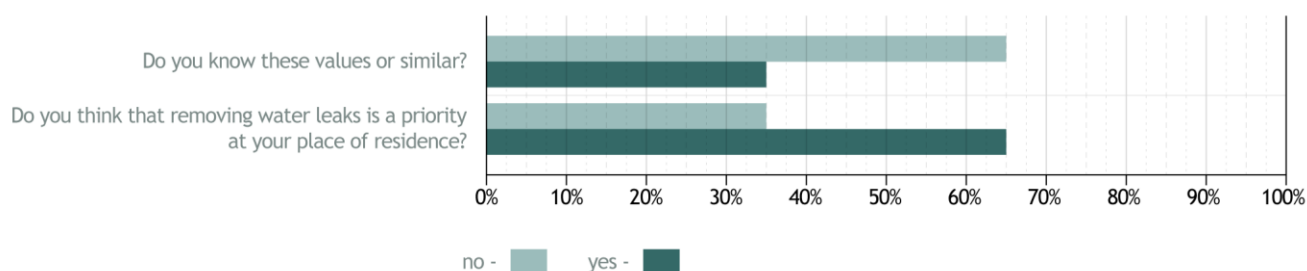


3. PROPER WATER USE AND REUSE

3.1 Local city infrastructure condition

Many respondents did not know the value of water losses in the water network caused by leaks (65%) but the same number of respondents considered eliminating leaks in the network as a priority in their place of residence.

In Bydgoszcz, water losses caused by leaks in the water supply network amount to 11.47%

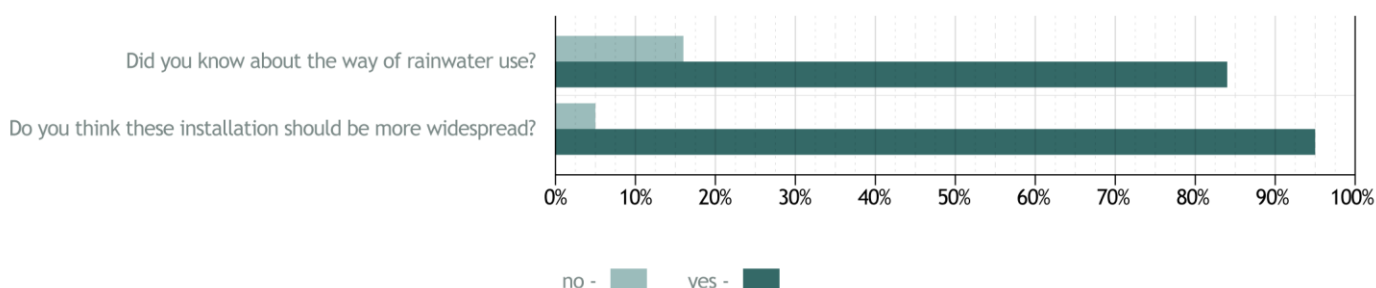




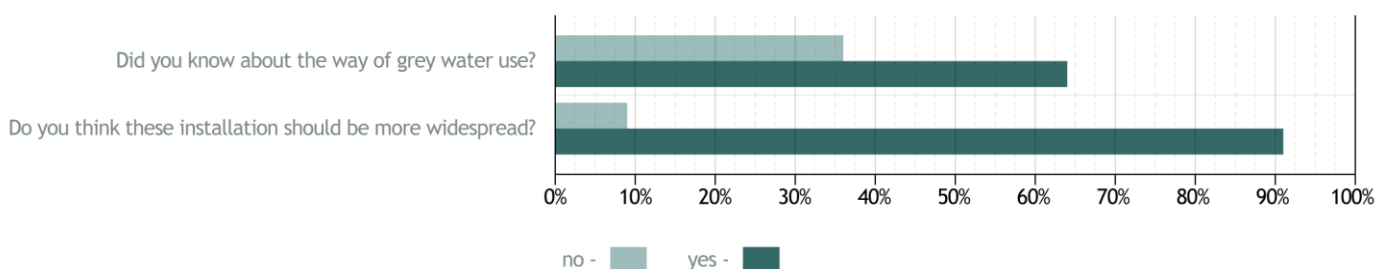
3.2 Rainwater use, grey water and green roofs

Respondents are aware of the methods of reusing rainwater (84%) and express positive attitude toward the popularization and use of such solutions (95%). A smaller number of respondents is aware of the possibility of reusing used water (grey water) in households (64%) and also many of them are positive about popularizing this type of solutions (91%). 71% of respondents have heard of "green roofs" and 91% of respondents express positive attitude toward the promotion of this solution.

Rainwater can be collected and used for non-food purposes (watering plants, flushing the toilet, washing cars ...) through appropriate installations.

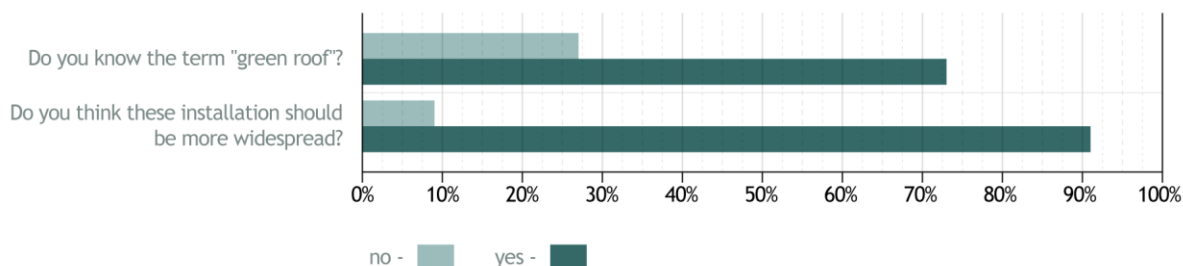


Part of the water used in the household can be reused thanks to the appropriate installations (for example, water from the shower or wash basin may be collected and used to flush the toilet).





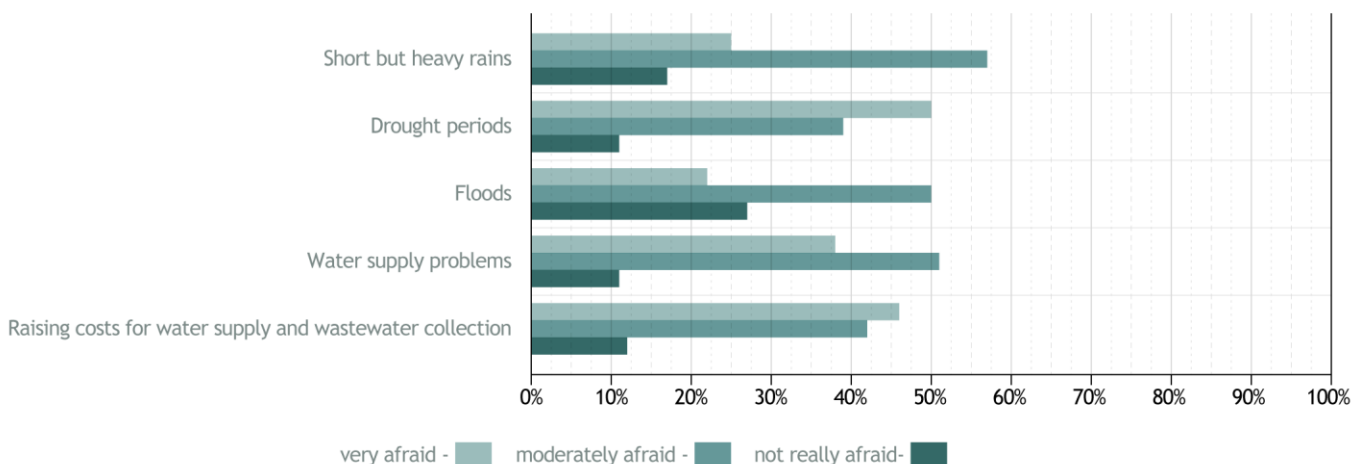
"Green roofs" are plant coverings of buildings that manage rainwater, provide insulation, they create an environment for wildlife, help reduce the air temperature in the city in summer.



3.3 Effects of climate change: are you afraid?

The possible effects of climate change cause different concerns among respondents but not all of them to the same extent. The greatest number of strong concerns focus on periods of drought (50%) and on increase in water costs (46%). Floods are characterized by the highest number of weak fears (29%) and with one exception none of the fears that are considered weak exceed 17%.

Due to climate change, the water cycle in nature will change significantly in the coming years.
Are you afraid of the following possible phenomena in your area?

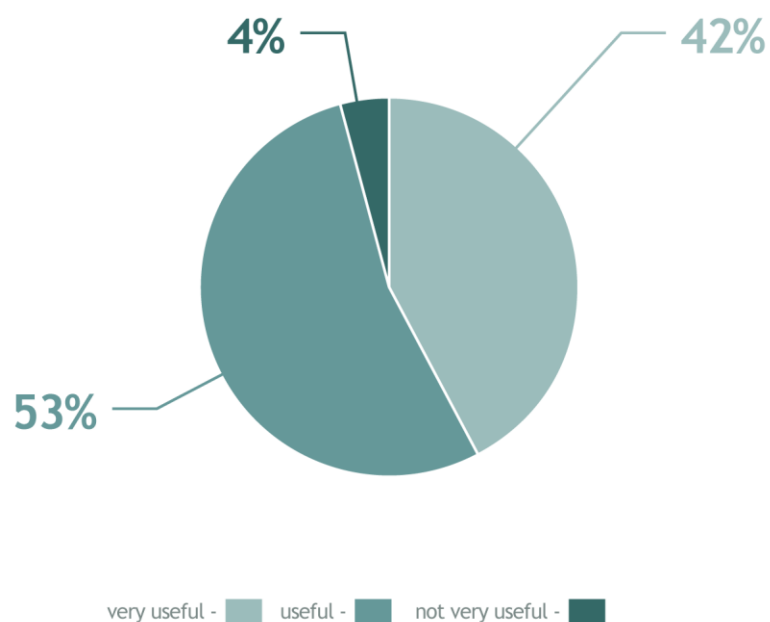




3.4 Information campaigns

According to respondents, awareness campaigns on the use and reuse of water are either very useful (42%) or useful (53%). Only 4% of respondents find such campaigns useless.

How useful are information campaigns on proper water management and water reuse?





Jak przydatne są kampanie informacyjne na temat właściwego gospodarowania wodą i ponownego wykorzystania wody?

