

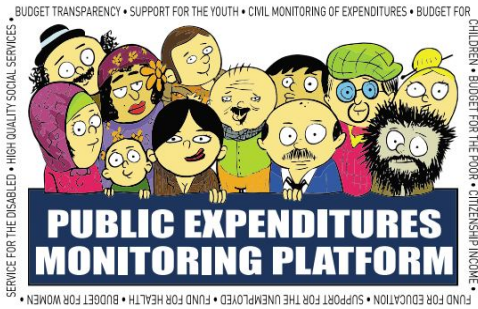
2021/5

TESEV
BRIEFS

**Environmental Protection and
Climate Change Budgets of
Metropolitan Municipalities:
An Assessment For 2021**

TESEV Briefs aim to share with the public different opinions and recommendations on issues that are under TESEV's working areas.





Public Expenditures Monitoring Platform

Nurhan Yentürk (*Bilgi University Center for Civil Society Studies*)

Yasemin Sayıbaş Akyüz (*Bodrum Citizen Assembly*)

Yakup Kadri Karabacak (*Initiative for Freedom of Expression(!?)*)

Işık Baştuğ (*Kadıköy Municipality Climate Ambassadors*)

Gökçen Bayram (*Green Thought Association*)

Özüm Çelik (*Green Thought Association*)

Meltem Düzel Ayrıl (*Green Thought Association*)

Yağız Eren Abanus (*Green Thought Association*)

Burcu Genç (*Green Future Association*)

Simin Kışınbay (*Green Future Association*)

Ece Baykal Fide (*Extinction Rebellion*)

It is argued that cities can fulfill significant functions in the fight against global warming and climate crisis, and it is stated that for this reason, they can play a pioneering role in both reducing greenhouse gases and adapting to the changing climate. Approximately 600 cities in Europe and 9,400 cities around the world have begun to implement mitigation and adaptation measures against climate change at different levels. It is known that big cities, including many metropolitan municipalities from Turkey, cooperate at an international level for the purpose of mitigation and adaptation.

The primary aim of this study is to classify¹ the environmental protection and climate change (EPCC) goals stated in 2021 performance programs of 14 metropolitan municipalities (MM) and their affiliates (i.e. AF, water and sewerage administrations and transportation departments) with the highest expenditure under the goals of mitigation, adaptation, waste and other environmental goals, and to examine the budgets allocated to these goals. Also, in this review, the pros and cons of the budgets allocated for the mitigation, adaptation and waste related goals of 14 metropolitan municipalities will be evaluated together, and concrete policy recommendations will be developed as to the areas where the allocated budgets should be increased/decreased.



The sudden and severe climatic changes that we have witnessed in the last few years; excessive precipitation, storms and hail squalls, forest fires, flood disasters that cause severe damages in cities, and loss of life and property, destruction of natural life, food and water crisis as a consequence of these are all important warnings for metropolitan municipalities to set goals to reduce greenhouse gas emissions and to increase their resilience to the climate crisis, and to increase their budgets in accordance with these goals.

On the basis of the very classification, the 2021-year performance goals of the 14 metropolitan municipalities and their affiliates with the highest budgets have been examined and coded one by one, and the performance goals have been grouped under four goals as stated above. This method has some limitations though: Some of the services provided by metropolitan municipalities in areas such as transportation and renewable energy are carried out through the corporations with which they are partners. And these corporations do not publish documents such as performance programs and annual reports, which are required to be published by public institutions, and they may carry out profit oriented activities in addition to public services. The second important limitation of the study is that the classification has been made only on the basis of the 2021-year performance goals. Therefore, making a comparison with the expenditures of some MMs and their AFs in previous years could not be possible in this study.

First of all, it will be useful to emphasize the amount of budgets allocated by

metropolitan municipalities for EPCC from their total budgets: The total EPCC budgets of 14 metropolitan municipalities and their change between the years 2018-2021 are included in the Public Expenditures Monitoring Platform (KAHİP), 2021 Monitoring Report². Accordingly, the EPCC budgets of 14 MMs and AFs are around 23.5 billion TL for 2021, and its ratio to their total budgets is limited to an average of 23 %. It is seen that this budget has increased with the current price since 2018; however, when analyzed with the fixed price of 2018, while there was no increase between the years 2018-2020, a decrease is seen in 2021. The sudden and severe climatic changes that we have witnessed in the last few years; excessive precipitation, storms and hail squalls, forest fires, flood disasters that cause severe damages in cities, and loss of life and property, destruction of natural life, food and water crisis as a consequence of these are all important warnings for metropolitan municipalities to set goals to reduce greenhouse gas emissions and to increase their resilience to the climate crisis, and to increase their budgets in accordance with these goals.

Table 1: Distribution of EPCC Budgets of The 14 Metropolitan Municipalities and Their Affiliates (%)

	Mitigation	Adaptation	Waste	Other
Gaziantep MM and AF	46	39,5	14	0,5
Antalya MM and AF	39	19	40	1
Ankara MM and AF	32,5	40	27	0,5
İstanbul MM and AF	30	28	38	4
Mersin MM and AF	24	28	38	10
Bursa MM and AF	21	55	14	10
Kocaeli MM and AF	12	39	48	1
Kayseri MM and AF	11	62	25	2
Balikesir MM and AF	11	58	28	28
İzmir MM and AF	10	48	38	4
Manisa MM and AF	7,5	39	52,7	0,88
Konya MM and AF	4	44	41	11
Adana MM and AF	3	60	23	14
Muğla MM and AF	0,77	39	59,8	0,44

Resource: www.kahip.org, Chart 7

The meltdown of the budget allocated for environmental protection and for combating climate change considering the high inflation rate is unacceptable.

In Table 1, the shares of mitigation, adaptation, waste and other environmental goals in the EPCC budgets of 14 metropolitan municipalities and their affiliates are given in descending order according to the share of the mitigation goal. According to the results obtained from the examination of the 2021 performance program; within the 2021 budget, Gaziantep MM and its AFs are the leading metropolitan cities that allocate a

share more than 20 % to mitigation in their total EPCC budget. This city is respectively followed by Antalya, Ankara, Istanbul, Mersin and Bursa. Although the mitigation shares are large among these cities, the mitigation shares of Ankara, Mersin and Bursa are lower than the share allocated for adaptation. The mitigation shares of Antalya, Istanbul and Mersin are lower than the shares allocated for waste. Therefore, Gaziantep has the largest mitigation share among all metropolitan cities. At the same time, it is the only metropolitan municipality that allocates a larger share for mitigation than both adaptation and waste budgets.

Mitigation

It should be expected that a more significant share be allocated for the mitigation goals of the cities that have a significant impact on global warming and climate crisis. The fact that the share allocated for mitigation within the performance goals of 13 of the 14 MMs and AFs examined is lower than that allocated for adaptation or waste goals is noteworthy as a negative situation.

In Table 2 the areas in which metropolitan municipalities have set mitigation goals are examined. The mitigation goals include transportation-based mitigation goals in areas such as rail systems and bicycle roads as well as those of renewable energy production, renewable energy use and energy efficiency, agricultural and animal mitigation and mitigation management³.

Table 2: 14 Metropolitan Municipalities, 2021 Performance Programs Mitigation Budgets (TL)

	Mitigation Share In The Total (%)	Rail System And Bicycle Road Budget (TL)	Renewable Energy Production (TL)	Renewable Energy Use And Energy Efficiency (TL)	Agricultural Emissions Mitigation (TL)	Animal Emissions Mitigation (TL)	Mitigation Management (TL)	Total
Gaziantep MM and AF	46	6.233.902	243.950.000	12.153.902				262.337.804
Antalya MM and AF	39	423.000.000	1.000.000	10.500.000				434.500.000
Ankara MM and AF	32,5	551.300.000	500.000	373.150.000		500.000	2.000.000	927.450.000
İstanbul MM and AF	30	2.688.096.600	711.000	403.259.727			967.200	3.093.034.527
Mersin MM and AF	24	26.000.000	691.000	132.297.000	921.000	7.188.910	1.000.000	168.097.910
Bursa MM and AF	21	104.701.000	374.400				710.400	105.785.800
Kocaeli MM and AF	12	124.350.000	9.094.614	7.680.000				141.124.614
Kayseri MM and AF	11	41.800.000	30.000	7.473.200				49.303.200
Balıkesir MM and AF	11		7.838.546	36.855.496	400.000	190.000	107.000	45.391.042
İzmir MM and AF	10	215.833.000	17.700.000	15.591.999	9.806.000	0	2.507.000	261.437.999
Manisa MM and AF	7,5		24.481.831	13.717.240				38.199.071
Konya MM and AF	4	20.000.000	1.000.000	195.000	1.700.000			22.895.000
Adana MM and AF	3	37.320.000		500.000				37.820.000
Muğla MM and AF	0,77			1.400.000		300.000	895.000	2.595.000
Total 14 MMs and AF		4.238.634.502	307.371.391	1.014.773.564	12.827.000	8.178.910	8.186.600	5.589.971.967

Resource: www.kahip.org, Chart 7

The most remarkable result seen from Table 2 is that the most significant share is allocated for the rail system in the mitigation goals budget, which already has a low share in the EPCC. In other words, as can be seen from the last two lines of Table 2, 4 billion 239 million TL of the total mitigation budget of 5 billion 590 million TL of 14 MMs and their AFs is used for the rail system. In addition, among 14 MMs and their AFs, it is seen that almost all of the mitigation goals budgets of 9 MMs and their AFs go to the rail system. For metropolitan municipalities, transition to the rail system serves the transportation goals rather than the mitigation goals. It should indeed be emphasized that the rail system transportation network is indirectly important for carbon emission mitigation. However, considering that electricity could be produced from fossil fuels, it is understood that the rail system has a very indirect contribution to the mitigation goal. Budget should be allocated for other mitigation areas apart from the rail system.

Very few metropolitan municipalities (Antalya, Istanbul, Izmir, Kocaeli, Konya, Mersin) have low bicycle roads budgets. When 2021 performance programs are

examined, it is seen that these metropolitan municipalities have a relatively low budget of 23 million 206 thousand TL for bicycle roads. Metropolitan Municipalities' aims on increasing and encouraging budget for bicycle roads will clearly have a positive impact on their mitigation goals.

Gaziantep and Manisa municipalities have allocated a significant share from their mitigation budget for solar power plants. 93% of the mitigation budget of Gaziantep Municipality is used for the establishment of renewable energy power plants. Similarly, Manisa Municipality has allocated 64% of its mitigation budget for the establishment of solar power plants. It can be emphasized that due to the favorable climatic conditions, the establishment of solar power plants will be very feasible for many of the examined metropolitan municipalities.

While most of the metropolitan municipalities have allocated low budgets for solar energy, Izmir, Mersin and Muğla municipalities allocated a budget for energy production from mud, and Bursa Municipality allocated a budget for energy production from methane gas. These budgets should be increased.

Energy production from landfill gas has not yet been put on the agenda of metropolitan municipalities. However, waste sorting and energy production from landfill gas can become an important source of energy in densely populated metropolises. The absence of this goal is one of the most important shortcomings. It should be noted that energy production from garbage should be carried out not by wild methods such as garbage incineration, but in accordance with the principles of sustainability, circular economy and zero waste.

Regarding renewable energy use and energy efficiency, Ankara, Istanbul, Mersin and Balıkesir municipalities have larger budgets than other municipalities. Providing transportation with low-emission buses; efficient use of energy in municipal buildings and municipal parks as well as in gardens and enterprises; reducing electricity costs in various areas and using renewable energy in treatment facilities, in the cleaning of buses and for similar needs are among the goals of these metropolitan municipalities. It is seen that budgets are allocated for renewable energy use and energy efficiency by other metropolitan municipalities, but as it can be seen from Table 2, their budgets are very

limited. It is very important to increase the budgets allocated for this area. The use of renewable energy and energy efficiency is, in fact, a goal which can be achieved by developing human capital and raising awareness.

It can be thought that supporting the agricultural activities in the close vicinity of metropolises and providing urban agriculture incentives and trainings to the public contribute to the mitigation, particularly for these will eliminate the use of fossil fuels caused by remote transportation. For this purpose, urban agriculture which will reduce distance transportation has also been included in the mitigation goals in the area of renewable energy use and efficiency. Within this framework, for the year 2021, it is observed that no budget is allocated to areas such as setting up of peasant markets, provision of training and support to producers (Ankara, Gaziantep, Izmir, Istanbul, Kayseri, Kocaeli, Konya, Mersin, Muğla) and greenhousing based on geothermal and solar energy (Ankara, Balıkesir, Izmir).

More budget should be allocated for the use of solar energy in agricultural production. Although geothermal energy is considered among the types of renewable energy, it can be detrimental to the environment if it mixes in fresh water resources during its extraction and if the chemical gases that emerge after its extraction are not sent back to the soil by reinjection method⁴. For this reason, opinions of the surrounding community, relevant CSOs and scientists working on the subject should be taken into account in the production, use and supervision of this energy.

Apart from these, mitigation-oriented agriculture and animal husbandry activities must be activities with very specific characteristics. Among these are supports given to organic farming and compost practices in agriculture and to livestock practices that will reduce methane gas emissions and improve the feed and breed efficiency of animals⁵. The three metropolitan municipalities that allocate approximately million TL budget in this regard are those of Izmir, Konya and Mersin. In Table 2, though very little in amount, the budgets allocated by Ankara, Balıkesir and Muğla municipalities for agricultural emissions mitigation and animal emissions mitigation are noteworthy. Since no budget has been allocated to this area by the other eight metropolitan municipalities. It is important that the medium-sized cities

that contribute to agricultural production and engage in animal husbandry allocate budgets for measures to reduce methane gas emissions in agriculture and animal husbandry and support compost practices and organic farming in agriculture. The mitigation management shown in Table 2 comprises the budgets allocated to goals such as the preparation and dissemination of climate change action plans and greenhouse gas measurement studies.

Since it is necessary to measure greenhouse gas emissions and make an action plan in order to carry out mitigation, the goal of mitigation management is placed below the mitigation goal. Once a climate action plan is made, it is generally considered as a goal that does not need to be re-budgeted for a while. However, for the internalization, implementation and dissemination of the climate action plan, it is important to allocate resources in the budget for the measurement and updating of greenhouse gases every year. That only seven metropolitan municipalities have mitigation management budgets is noteworthy. As it is known, the Climate Compact of Mayors was signed in 2014 in the presence of UN. Out of the 14 municipalities examined in our study, 9 metropolitan municipalities have signed this contract. These are the metropolitan municipalities of Adana, Antalya, Bursa, Istanbul, Gaziantep, Izmir, Kocaeli, Mersin and Muğla.

Table 3: 14 Metropolitan Municipalities, 2021 Performance Programs Adaptation Budgets (TL)

	Adaptation Share In The Total EPCC Budget (%)	Drinking Water Facility Construction	Agricultural Irrigation Facility Construction	Water/Irrigation Facility Operation and Maintenance	Green Area And Pharynx	Rainwater Harandsting	Water Efficiency	Compatible Agriculture And Animal Husbandry	Climate Early Warning/ Flood	Total
Kayseri MM and AF	62	74.044.000	5.500.000	104.418.000	82.323.500		2.200.000	2.586.800		271.072.300
Adana MM and AF	60	330.550.000		149.100.000	186.517.000		10.250.000			676.417.000
Balikesir MM and AF	58	9.442.235		114.853.849	108.042.369		3.638.131	5.613.000		241.589.584
Bursa MM and AF	55	30.958.301	19.769.162	25.354.088	188.208.000		9.963.615		2.145.531	276.398.697
İzmir MM and AF	48	240.827.033		299.809.000	517.278.000	113.144.556	6.401.500	32.876.000	50.637.223	1.260.973.312
Konya MM and AF	44	49.575.000		73.700.000	119.609.000		870.000		280.000	244.034.000
Ankara MM and AF	40	758.253.000	2.000.000	266.101.000	94.100.000		8.140.000	7.500.000		1.136.094.000
Gaziantep MM and AF	39,5	122.585.000		90.000	79.050.000		24.000.000			225.725.000
Kocaeli MM and AF	39	210.871.832	2.050.000	192.700.833	50.163.000		7.386.341	900.000	796.675	464.868.681
Manisa MM and AF	39	119.641.895	3.540.389	5.716.931	10.168.311		6.033.939	2.105.291	50.415.656	197.622.412
Muğla MM and AF	39	2.680.000		118.047.000	6.250.000				4.300.000	131.277.000
İstanbul MM and AF	28	708.489.566		615.876.596	1.074.813.170		233.065.838	66.434.120	235.060.623	2.933.739.913
Mersin MM and AF	28	59.013.500	10.809.800	34.072.588	28.042.500		65.389.000			197.327.388
Antalya MM and AF	19	192.350.000		5.610.000	14.120.000		6.000.000			218.080.000
Total 14 MM and AF		2.909.281.362	43.669.351	2.005.449.885	2.558.684.850	113.144.556	383.338.364	118.015.211	343.635.708	8.475.219.287
Total, İstanbul Excluded		2.200.791.796	43.669.351	1.389.573.289	1.483.871.680	113.144.556	150.272.526	51.581.091	108.575.085	5.541.479.374

Resource: www.kahip.org, Chart 7

Greenhouse gas inventory, mitigation goal, local climate action plan and monitoring mechanism are stated as indicators of the implementation of the compact⁶. And yet, monitoring of the resources allocated by municipalities for combating climate change is not included among these indicators. According to the results of our study, as seen in Table 2, among the signatory metropolitan municipalities, Adana, Antalya, Gaziantep and Kocaeli municipalities have not allocated a budget in their 2021 performance programs. Although Ankara and Balikesir are not among the metropolitan municipalities that signed the contract, they allocated a budget.

Adaptation

The areas which the adaptation goals of 14 metropolitan municipalities and their affiliates focus on can be followed from Table 3. Looking at the last lines of Table 3, it can be seen that the most significant share in the budget allocated by the total 14 MMs and their AFs to the adaptation goal is for the construction of drinking water facilities. Drinking water supply is one of the leading traditional services provided by the water and sewerage departments, which are affiliated institutions of metropolitan municipalities.

Given the global warming and climate crisis as well as the increasing drought and water scarcity, water supply is an important issue related to the adaptation goal. When the construction of drinking water facilities, construction of agricultural irrigation facilities and operation of these irrigation facilities and drinking water facilities are considered together, it is seen that 60 % of the total adaptation budget is related to the construction and operation of these facilities.

Apart from irrigation, green areas take the largest share of the remaining budget. Especially the carbon sink function of green areas is in the foreground. However, when the activity reports of 14 metropolitan municipalities are examined, it is seen that grass planting and maintenance is an important activity. Yet, grass is a cover that requires excessive water and its share in adaptation expenditures is not excepted. Therefore, it should be kept in mind that the budgets in this area contain a goal that may be against adaptation. Metropolitan municipalities should abandon grass planting and switch to groundcovers that require less water and are suitable for the local natural environment. Excessive water consumption should be avoided by the use of endemic meadow. Urban forests are not specifically stated in performance goals. Budget for urban forests should be added.

Conservation of biodiversity and endemic species and biological control of pests are included in the green area and pharynx area. The metropolitan municipalities of Ankara, Balıkesir, Istanbul and Izmir

allocated budgets for the goals of protecting biodiversity and endemic species. From the budgets of Izmir, Kayseri and Mersin municipalities, it is understood that fight against pests are carried out by biological means. Metropolitan municipalities should allocate a budget for the sub-areas of protection of biodiversity and endemic species, and biological control against pests, which are seen to have been allocated a very limited budget.

In all metropolitan cities except Izmir, rainwater is included in the facilities built for its inclusion in the sewer system, as a duty of the sewerage administrations. Within the framework of adaptation to climate change, the allocation of a budget is aimed for the storage and reuse of rainwater. In context of climate crisis-related drought threat and of water and food security, rain harvesting is an implementation that cities should apply and should be put on the agenda of metropolitan municipalities.

Water efficiency is an area for which 14 metropolitan municipalities allocate budgets. However, the budgets allocated for water efficiency are very low, except for Istanbul, Mersin and Gaziantep. While the efficient use of water requires technical investments such as monitoring of leakage and losses, almost all of which are applied by the metropolitan municipality, and software investments such as SCADA, it is an area where significant results can be obtained with lower budgets for it includes training and awareness raising for citizens and municipal employees.

The area of water efficiency also includes the sub-area of desalination of sea water. This goal is only included in the 2021 performance program of the Izmir Metropolitan Municipality. Desalination of sea water, in other words “desalination” processes are applications that may cause undesirable effects in terms of combating the climate crisis and sustainability. It is important that this process be considered and carried out within the conditions of each region in compliance with the sustainability criteria⁷. It is a goal recommended for consideration of the metropolitan municipalities of the cities located on the coastline. However, before that, methods such as water saving and rain water harvesting should be adopted.

It can be seen in Table 3 that there are 6 metropolitan municipalities that include the construction of agricultural irrigation facilities among their 2021 goals. It is a fact that agriculture is one of the primary sectors with the highest water consumption. In irrigation of agricultural lands, methods that use less water, such as drip irrigation should be adopted and encouraged instead of uncivilised irrigation methods. Budget should not be allocated for the construction of agricultural irrigation facilities based on rough irrigation methods. It is important

to use drip irrigation in parks and gardens as well. Manisa is the only metropolitan municipality that has a specified goal in this particular in the 2021 Performance Program.

An important adaptation goal in Table 3 is related to the budget allocated to compatible agriculture and animal husbandry. Sub-areas such as subsidies for heat-adaptive agricultural practices and combating erosion, desertification and drought are considered within the area of compatible agriculture. In addition, increasing soil fertility, subsidies for compatible animal husbandry and protection of animal health are included in the area of compatible agriculture and animal husbandry. As can be seen in Table 3, only seven metropolitan municipalities have goals responding to this broad topic. As for the municipalities of medium-sized metropolitan cities with a high tendency for agricultural production, they should also increase their budgets for agricultural adaptation against the adverse effects of the climate crisis. Besides, it would be appropriate to provide support for products that require less water instead of agricultural products that require a large amount of water in their cultivation, and to provide information and training on these issues.

Protecting animal health is a more common goal. However, as stated above, protecting animal health and supporting animal husbandry should be considered as goals that should go hand in hand with those of methane mitigation. Resources allocated to combating floods, climate warning systems and heat waves are also classified separately under the adaptation goal. Setting up of climate early warning systems is a goal for which metropolitan municipalities should allocate resources. Allocation of resources for combating floods and the rehabilitation of streams without the use of concrete is

also important. It can be seen in Table 3 that there are seven metropolitan municipalities which have allocated budget to this area.

Waste

Waste goal is at the top of the goals to which metropolitan municipalities, especially water and sewerage administrations traditionally allocate budget. Looking at the totals in the last two lines of Table 4, it is seen that the construction of a liquid waste facility is the largest expenditure item.

Table 4: 14 Metropolitan Municipalities, 2021 Performance Programs Waste Budgets (TL)

	Mitigation Share In The Total EPCC Budget (%)	Solid Waste Facility Construction	Waste Collection/ Management	Liquid Waste Facility Construction	Treatment Facility Construction	Waste Efficiency/ Recoandry	Total
Muğla MM and AF	59,8	1.750.000	130.597.000	12.050.000	51.318.000	5.500.000	201.215.000
Manisa MM and AF	52,7	15.284.970	91.665.919	107.934.343	25.578.232	27.282.801	267.746.265
Kocaeli MM and AF	48	51.500.000	173.962.335	300.934.079	29.670.623	12.501.744	568.568.781
Konya MM and AF	41	0	10.000.000	130.100.000	77.050.000	11.000.000	228.150.000
Antalya MM and AF	40	0	30.620.000	144.404.000	271.550.000	0	446.574.000
İstanbul MM and AF	38	1.320.811.180	1.308.767.949	1.056.440.000	341.803.652	8.006.633	4.035.829.414
İzmir MM and AF	38	0	312.330.000	525.009.473	165.044.915	3.512.500	1.005.896.888
Mersin MM and AF	38	0	231.613.212	39.250.400	2.412.000	315.000	273.590.612
Balıkesir MM and AF	28	9.197.792	47.126.209	46.050.056	6.121.256	9.412.833	117.908.146
Ankara MM and AF	27	0	309.071.000	389.822.000	71.360.000	0	770.253.000
Kayseri MM and AF	25	0	23.103.000	69.426.000	12.355.000	5.640.000	110.524.000
Adana MM and AF	23	0	29.110.000	203.210.000	28.600.000	0	260.920.000
Gaziantep MM and AF	14	10.000.000	13.650.000	52.910.000	3.500.000	577.000	80.637.000
Bursa MM and AF	14	5.932.800	10.673.700	36.979.969	16.809.173	404.400	70.800.042
Total14 MM and AF		1.414.476.742	2.722.290.324	3.114.520.320	1.103.172.851	84.152.911	8.438.613.148
Total, İstanbul Excluded		93.665.562	1.413.522.375	2.058.080.320	761.369.199	76.146.278	4.402.783.734

Resource: www.kahip.org, Chart 7

Construction of liquid waste facilities and constructions for the rainwater included in it to join the sewerage have the largest share in the total budget. Istanbul accounts for one third of this budget. The construction of the sewage plant, which amount to 3 billion TL, can be evaluated together with a treatment facility budget of around 1 billion TL. It is important that the 14 metropolitan municipalities examined have allocated a budget for the construction of treatment facilities. However, especially after the mucilage seen in the Marmara Sea, one important point to be emphasized is that these facilities should be planned as advanced biological treatment facilities rather than traditional deep discharge facilities. And from the performance programs examined, it is not clear whether the treatment facilities are deep discharge or advanced biological treatment facilities. For this reason, the budgets allocated for the construction of all kinds of treatment facilities have been taken into account; it is seen that among the metropolitan municipalites, Antalya, Istanbul and Izmir municipalities have allocated significant resources to this area. On the other hand, Ankara, Konya and Muğla are also among the metropolitan municipalities that have allocated resources for treatment facilities.

Solid waste facility construction includes constructions for garbage storage and construction of garbage and other solid waste disposal facilities. Istanbul Metropolitan Municipality has allocated a large budget for the construction of solid waste facility in 2021. The main budgets

of metropolitan municipalities other than Istanbul regarding solid waste are related to the collection of garbage and other waste. As of 2021, no budget has been allocated for any additions or improvement regarding solid waste facility construction by other metropolitan municipalities.

The most notable area in Table 4 is that of waste efficiency and recovery. The scope of this area includes waste efficiency sub-areas such as waste parsing, waste mitigation, reuse, dissemination of zero waste bins, waste water recovery, waste recycling and recovery, education, awareness and supervision activities. How scant is the resource allocated to waste efficiency goals can be seen from the last line of Table 3.4. It is important to increase the budget to be allocated for waste efficiency by all metropolitan municipalities and to set the goal of waste recycling with a higher budget than that allocated for waste collection.

Other Environmental

Other environmental expenditures are the goal for which an average budget of 6 % is allocated within the total EPCC expenditures (Table 1). This goal includes the budgets allocated for the cleaning of cities, squares, markets, coasts and beaches, nature protection and environmental awareness training, care of stray animals, air pollution measurement and environmental laboratories. The cleaning expenditures of some metropolitan municipalities, along with expenditures on other materials, have remained within the general procurement goals without being separated.

However, when the goals in the performance programs are examined separately, it can be said that metropolitan municipalities have a certain sensitivity towards cleanliness and stray animals.

One of the areas under the other environmental goals is awareness raising and training organizations. Local administrations can organize activities to reinforce what is learned in the lessons on climate change and environmental awareness, which the Ministry of National Education teaches in the school curriculum. Within this scope, resources should be allocated for organizing activities for children, youth, teachers and parents to raise their awareness about nature protection, ecology and environmental consciousness through centers affiliated to municipalities. Measurement and environmental laboratories and inspection activities are also among the sub-areas that need to be budgeted.

Conclusion

In sum, in the context of urban poverty experienced in Turkey, a certain progress has been made in the field of “social municipalism” for the past decades. When the effects of global warming and the current climate crisis on cities and the contribution of cities to this crisis, “green municipalism” is an urgent and delayed goal that should be included in the agenda of metropolitan municipalities as a mainstream.

In this study, this is the conclusion drawn from the 2021 budgets of the 14 metropolitan municipalities.

According to the KAHİP 2021 Monitoring Report, it is observed that the metropolitan municipalities and their affiliates allocate their EPCC budget, which constitutes an average of 23% of their total budget, mostly to activities such as the solution of the transportation problem, water finding, solid and liquid waste collection and landscape design of grass-based green areas largely confined to public use, within the scope of a traditional understanding of municipalism. Apart from these, a very limited budget is allocated for goals such as renewable energy production, use and efficiency; agricultural and animal emissions mitigation; greenhouse gas measurement, climate action plan preparation and implementation; rainwater recovery; efficient water use; compatible agriculture and animal husbandry; climate-related disaster/flood early warning systems.

NOTES

1. For a detailed list of the classification, see www.kahip.org

2. The monitoring report and the performance goals of 14 metropolitan municipalities regarding EPCC for the period 2018-2021 are given in the most detailed way in Chart 7, available at www.kahip.org

3. For the details of the classification, see https://www.kahip.org/wp-content/uploads/2021/11/CKID-RAPOR-121121_.pdf

4. <https://www.wwf.org.tr/?10120/Jeotermal-enerji-tehdit-olmasin>

5. For the contribution of methane gas to greenhouse gas emissions and the role of agriculture in methane gas production, see. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

6. Kent-Lab report: <https://www.iklimhaber.org/iklimin-kentlesmesi-ve-yerel-iklim-eylem-planlari/eylem-planlari/>

7. <https://yesilgazete.org/desalinasyon-susuz-kentlere-care-mi-akgun-ilhan/>

How to Cite:

KAHİP. 2022. "Environmental Protection and Climate Change Budgets of Metropolitan Municipalities: An Assessment For 2021" TESEV Briefs 2021/5.

<https://www.tesev.org.tr/tr/research/environmental-protection-and-climate-change-budgets-of-metropolitan-municipalities-an-assessment-for-2021/>

This brief was translated from its Turkish [original](#) by Emine Ayhan.

Copyright © January 2022

All rights reserved. No part of this publication may be reproduced by electronic or mechanical means (photocopies, downloading, archiving, etc.) without the permission of the Turkish Economic and Social Studies Foundation (TESEV).

The views expressed in this publication are those of the authors', and may not correspond in part or in full to the views of TESEV as an institution.

TESEV would like to thank the Friedrich Ebert Stiftung for their support for this publication.

