

Participatory Budgeting as a Tool of Environmental Improvements in Polish Cities

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Abstract: The phenomenon of participatory budgeting in Polish cities shows growing awareness of citizens' role in local development. Participatory budgeting is a tool of partial empowerment of residents through local budgetary policy. A social energy released by initiatives and proposed projects allows for implementation of relevant activities that from the residents' perspective improve quality and comfort of urban life. Research problem around which the article is focused is a question to what extent an interest of inhabitants is related to projects and tasks of environmental character in their cities.

The empirical part of the paper presents an analysis of participatory budgeting in Katowice, Łódź and Poznań and applies to projects reported in 2015 and realized in 2016. The aim of this article is to identify the activities of residents of the selected cities related to improvement of the quality of environment through participatory budgeting. The studies clearly show that despite the apparent differences between the cities, the participatory budgeting is an important area of creativity and innovation of the residents towards quality of urban environment.

Keywords: local development, participatory budgeting, environmental protection

JEL codes: Q 58, O15, O29

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1. Introduction

Participatory management is gaining more and more followers among local units around the world. It is perceived as a counterbalance to the government systems often contrary to the expectations and needs of the inhabitants. Many scientific papers and formal documents

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indicate participatory budgeting (PB) as an innovative urban management theme with an enormous potential to promote principles of good urban governance (Kaufmann et al., 2010; Commission, 2001). A need of transformation of local government system emphasises a role of empowerment, citizen's participation and different stakeholder engagement (Bovaird and Löffler, 2003).

The growing number of local governments in OECD countries have implemented new institutions that foster openness and receptiveness to citizen concerns. The main directions and mechanisms of management are related with the particular principles (OECD, 2005: 29):

- transparency – to know what has been decided;
- accessibility – to obtain their legitimate service entitlement;
- consultation and participation – to be heard.

Participatory budgeting is a tool that allows the participation of citizens in the allocation of public finances and in this sense it represents a direct-democracy approach to local finances.

It is a process of direct, voluntary and universal democracy, where the people can debate and decide on public budgets and policy (Taylor, 2004: 20). PB can redirect municipal investment towards more direct cohesion with the needs of the inhabitants. It can lead to better wellbeing and for the sustainability of the city they inhabit. We agree that PB can improve state performance and quality of local life and enhance the quality of democracy (Wampler, 2007).

With more than 14000 experiences recorded in over forty countries, PB is gradually changing the living conditions of increasing numbers of citizens across the world (Cabannes and Lipietz, 2015). An adaptation of participatory budgeting from Brazil to Europe and since 2011 to Poland has been a highly differentiated process. In the year 2015 the amount of PB was estimated in 171 Polish local units (GUS, 2015: 3). Nevertheless, the origins of Porto Alegre process derives from democratization and social justice. In Poland this process is mostly seen with a perspective of personal benefits and neighbourhood living.

The analysis shows that participatory budgeting has many potential benefits for local government and civil society alike. Cities' sustainability integrates man-made and built components of the urban environment with the natural spaces of the urban structure. It is argued, however that environmental issues are of a strategic interest for the quality of life of more and more urbanizing society (Chiesura, 2004: 129). Modern cities offer solutions for sustainable development, but despite many improvements, they face many environmental problems (European Union, 2011: 27). A challenge is to implement the mechanisms of governance in a way to engage citizens to solve negative changes in the cities. The general concern of this paper

are environmental improvements in cities through the projects prepared and voted by the residents in the mechanism of participatory budgeting.

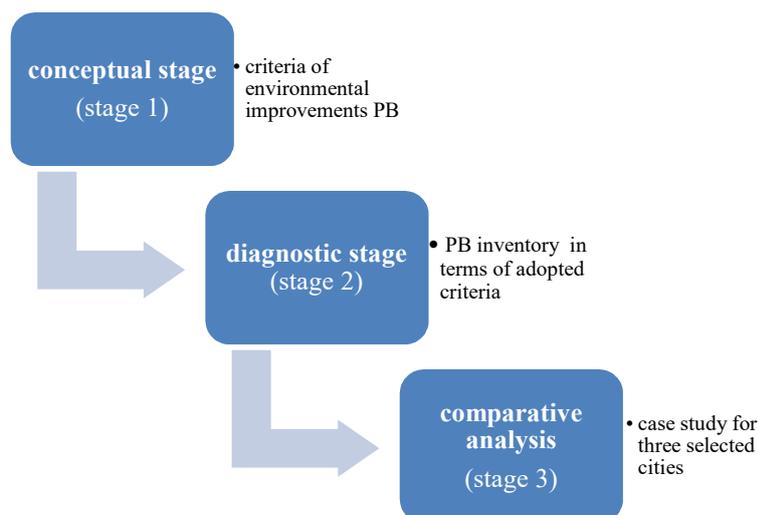
2. Method and research area

PB is a toll of a multidisciplinary and complex change of a city space. The paper is more thematic oriented, addressing a context of environmental issues. The research question arise: Do the residents are interested in environmental issues in their cities? The main axe of this paper are the improvements of environmental management in cities based on an analysis of the PB projects. However, a subject of local governance is a direct part of the topic. We recognize PB as a tool for engaging, empowering and educating also in terms of ecological awareness.

To accomplish research goal addressed in this paper we had to develop unique studies based on heuristic techniques, which deploy expert knowledge and *desk research*. For case study we selected three Polish cities: Poznań, Łódź, and Katowice with different backtrack history of participatory budgeting.

Key effort in the first stage of research focused on conceptual works that helped identify the parameters (characteristics) of environmental improvements part of PB and criteria that define its individual categories (Fig. 1). Our research started with the review of literature on environmental protection, environmental economics, and their legal framework. In the course of studies we used the definition of “environmental protection” included in the Act on Environmental Law (2001) as the leading platform for considerations. We distinguished PB environmental projects based on their content looking for aspect pertaining to: rational shaping of the environment and managing environmental resources in accordance with the principle of sustainable development (1), counteracting pollution (2), and bringing back components of nature to their original shape (3). The adopted assumption allowed making an inventory of participatory budgeting in three cities (Poznań, Łódź, and Katowice) against given criteria. Identification of projects and their selection (diagnostic stage) helped us divide them in 8 thematic groups under a single category of environmental improvements: green infrastructure, blue infrastructure, protection of nature, air and atmosphere protection, environmental education, taking care of pets, waste management, and protection against noise.

Figure 1. Stages of research



Source: Author's own elaboration.

Results of studies carried out in parallel in selected cities provided grounds for a comprehensive comparative analysis of PB budgets in the context of environmental improvements. We made a targeted choice of cities dictated by differences in their experience in participatory budgeting.

City profiles: Katowice, Łódź, Poznań

Katowice is a city in southwestern Poland and the center of the Silesian Metropolis inhabited by about 2,7 million people. The city population is less than 300 thousand.

The Silesia is an area of heavy concentration of industry. Nevertheless over the last two decades the region is changing. The process of a radical transformation is mostly ongoing in Katowice. Nowadays the city is a dynamic business centre. Its post-industrial transformation moves to trade-fair and cultural profile. Katowice has been investing in culture and creativity to revitalize and regenerate, summarizing its vision by the motto “from heavy industry to creative industries”.

The city is changing also in terms of its management patterns. The residents of Katowice want to be involved in the process of a city change. The top-down planning is slightly replaced by a dialog with citizens. Nevertheless this process is slow and mostly directed to non-governmental organizations.

A governance tool of participatory budgeting that was first introduced in the city in 2014 gives the residents a real voice in a process of “building new Katowice”. The first edition of “Katowice Participatory Budgeting” amounted to 10 million zlotys rising to 20 million zlotys

in the following years. In 2015 a division into projects directed to city districts and the whole city was introduced. The number of projects in the editions 2014-2017 was over 300 and the turnout increased from 4,4% to more than 12%.

Poznań is situated on the River Warta in its middle course, in the Western part of Poland. Its population exceeds 540k in the city reaching almost 3.8m people in the metropolis. Poznań is an important service centre. Its major service functions include education and higher education, healthcare, sports, and commerce. The city is also an important centre of culture and the cradle of Polish Statehood, which got fostered in the Middle Ages. Its favourable location largely contributed to its success as an industrial centre (Poznań City Council, 2014: 20).

The River Warta, which flows through the city plays a specific environmental role acting as a corridor and the main axis of environmental layout of the metropolis and the region of Wielkopolska. Poznań hosts three Natura 2000 areas (Poznań Fortress, Biedrusko, and Samica Valley). Wielkopolski National Park situated south of the city and protected landscape park Zielonka, a forest complex in the north, are the main leisure areas for urban population.

Poznań has got a characteristic layout of urban green areas designed in the 1st half of the 20th century.

Poznań launched its participatory budgeting initiative back in 2012 as one of the first cities in Poland. At that time, PLN 10m were allocated for the purpose. Voter turnout was 3.7% (Participatory budget). In subsequent years the budget was systematically increasing to reach PLN 18m in 2017. The turnout fluctuated; it was the highest in 2014 when 16.4% of the population cast their votes (Łukaszewski, 2017).

Łódź, one of the biggest Polish cities, third by population (700, 892 in 2015) is situated in the centre of Poland and Europe. Although its origins date back to the Middle Ages, the city acquired its specific industrial profile in the 19th century. Unprecedented rate at which textile industry developed changed a small town inhabited by several hundred people into an industrial metropolis with the population of several hundred thousand over a century. The last decade of the 20th century brought drastic social, political and economic changes resulting in deep transformations of social and economic, as well as functional and spatial structures.

Until recently Łódź was considered a little interesting and gloomy city associated mainly with simple and raw working class culture and specific but insufficiently distinctive customs. Today it attracts with its spectacular regenerated areas and adaptations of monumental industrial architecture. Modern image of the city is skilfully filled with industrial premises, which host

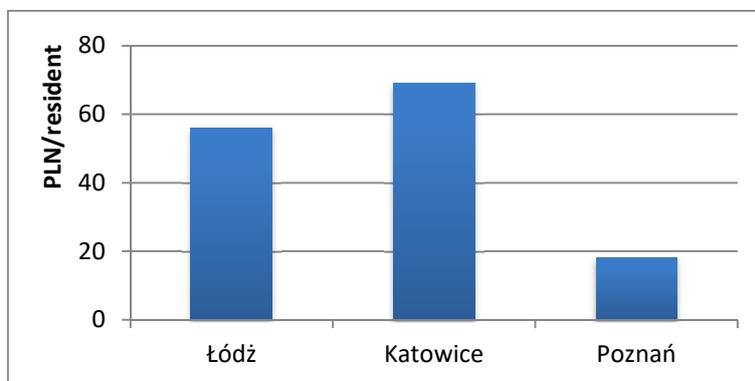
modern offices, hotels and apartments or leisure and entertainment centres. Łódź is an important research centre, a place where creative industries, art, design, and innovation develop.

People living in this exceptional and specific city experience subsequent stages of building awareness of its potential; they have gone from a complete lack of knowledge to full recognition and acknowledgement of its cultural merits and industrial heritage. How much residents are involved can be seen in their response to the invitation to participate in designing the city through participatory budgeting. The formula of participatory budgeting in Łódź had been launched in 2013. Submitted projects were implemented in 2014. Over the period 2013-2017 residents of Łódź submitted in total almost 4k projects. Voter turnout is ca. 20% (19.3% in 2015).

3. Environmental improvements in participatory budgeting in Katowice, Łódź and Poznań: results of studies

In 2015 participatory budgeting (PB) continued engaging local communities in decision-making for the sake of the common welfare. For Poznań (www 1) and Łódź (www 2) these were, respectively, fourth and third editions of PB while Katowice (www 3) used the tool for the second time that year. Funds earmarked for PB differed across the cities. The highest amount of PLN 40m was allocated in Łódź. Katowice allocated PLN 20m and Poznań PLN 10m. As a result, PB per capita index was the highest for Katowice – PLN 69. In Łódź and Poznań the same index reached PLN 56 and PLN 18 (Fig. 2). To compare, Sopot was the city with the best PB per capita index in Poland where more than PLN 105 were spent per resident (with PB budget of PLN 4m).

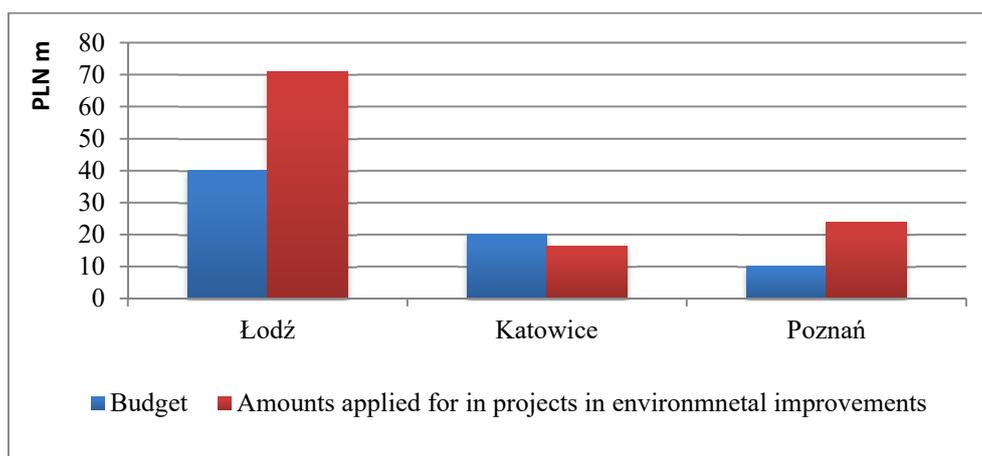
Figure 2. PB per resident in cities



Source: Author's own elaboration.

In Łódź and Poznań total amounts applied for in Participatory Budgeting projects in the area of environmental improvements exceeded funds allocated for Participatory Budgeting. In the first case, submitted PB projects represented PLN 70.9m against the total PB budget of PLN 40m, while in the second case the amounts were PLN 23.9m and PLN 10m, respectively. Only in Katowice the amount was slightly below the allocated budget and reached PLN 16.6m (Fig.3).

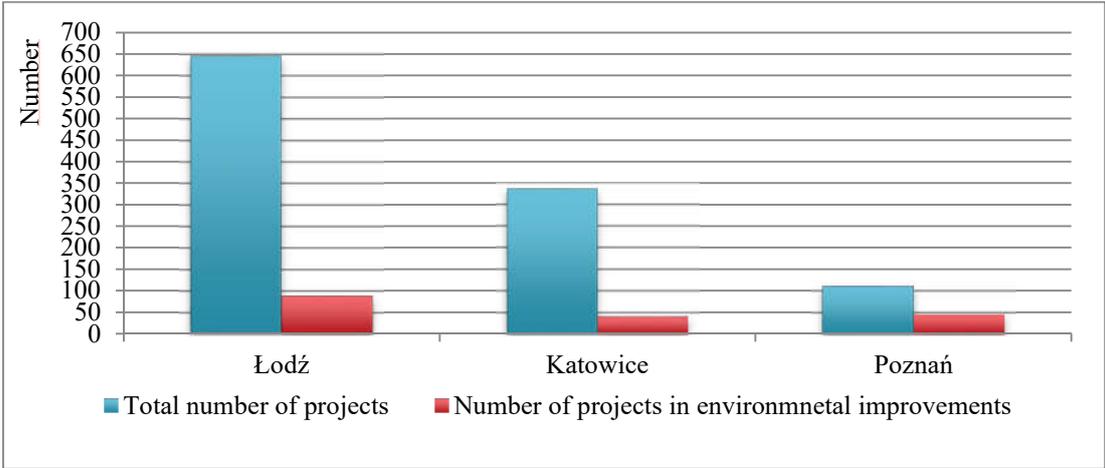
Figure. 3. Amounts applied for in projects in the area of environmental improvements and PB



Source: Author's own elaboration.

We cannot unambiguously conclude whether interest in PB was proportional to available resources earmarked for the purpose or, perhaps, financial and investment needs and the involvement of local communities in these cities are different. Local relevance of participatory budgeting can also be measured by the number of projects submitted within the framework of PB. Number of projects categorised as environmental improvements was the following: in Łódź 88 out of 645 projects (14%), in Poznań 45 out of 110 projects (40%), and in Katowice 40 out of 335 projects (11%) (Fig.4).

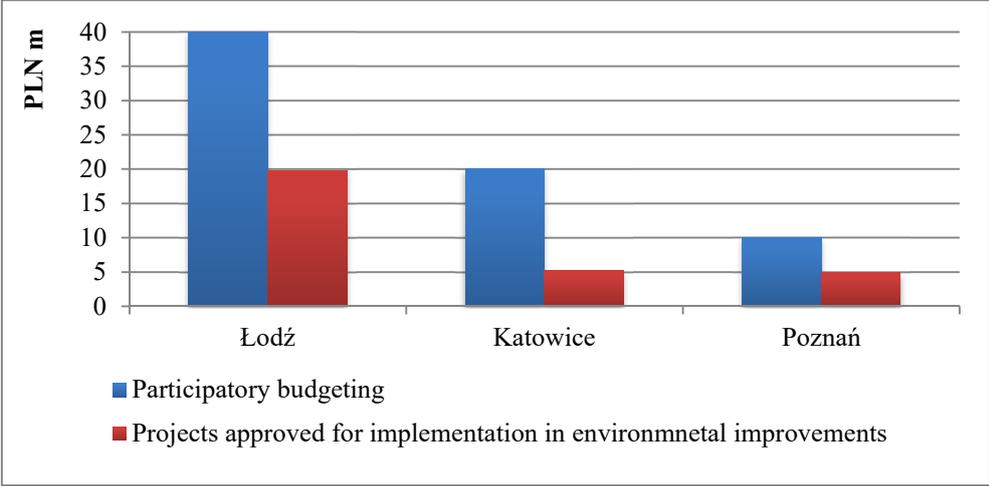
Figure. 4. Number of projects in environmental improvements and the total number of projects



Source: Author’s own elaboration.

Following residents’ voting, each city earmarked a substantial portion of resources dedicated to participatory budgeting for projects in environmental improvements. In the case of Łódź the amount was PLN 19.74m (49.4%), in Katowice PLN 5.23m (26.1%), and in Poznań PLN 4.95m (49.5%) (Fig.5).

Figure. 5. Projects in environmental improvements approved for implementation and total PB



Source: Author’s own elaboration.

Anticipated value of individual projects in environmental improvements was largely diverse. It ranged from several thousand PLN (e.g. projects in environmental education) to several million PLN (projects addressing leisure infrastructure or regeneration of green areas). Average value

of a project submitted in the area of environmental improvements in Łódź was PLN 806, 133, in Poznań PLN 531, 504, and in Katowice PLN 353, 469. The picture is slightly different when it comes to average value of projects which received funding. In Łódź the average was PLN 897, 096, in Poznań PLN 381, 115, and in Katowice PLN 310, 431.

Less than half of all projects submitted in 2015 in the area of environmental improvements were approved for implementation. The rate for Katowice was 42.5%, for Poznań 29%, and for Łódź 25%. Value-wise, projects approved in Katowice represented 37% of all projects in this area, in Łódź 28%, and in Poznań 21%.

Also the share of projects with estimated cost above PLN 1m, which may be considered big projects, differed. Poznań and Katowice approved one such project each, Łódź approved 9 big projects with 3 out of them exceeding PLN 2.5m.

To carry out a detailed analysis of investment directions, all tasks covered by environmental improvements category were divided into 8 the following groups: 1) green infrastructure, 2) blue infrastructure, 3) nature protection, 4) protection of air and atmosphere, 5) taking care of pets, 6) waste management, 7) environmental education, 8) protection against noise. For each group we identified the number and value of projects submitted and approved for implementation.

Green infrastructure together with protection of air and atmosphere ranked first amongst intervention areas with respect to both the number of projects submitted and approved, as well as their value (Tab. 1, 2). An area where the number of projects was not remarkable but with high amounts of funds involved was also blue infrastructure. In total, 25 projects in green infrastructure received more than PLN 18m in cities covered by the study. Out of this amount Łódź allocated almost PLN 15m, Poznań PLN 1.8m and Katowice PLN 1.5m. At the same time, almost 18 projects in the area of air and atmosphere protection received almost PLN 7m: ca. PLN 4.7m in Łódź, more than PLN 1.5m in Katowice, and PLN 0.6m in Poznań. Categories where projects were submitted but failed to get any funding included: waste management (2 projects submitted in Poznań), environmental education (3 projects submitted in Łódź and 1 in Poznań), and protection against noise (1 project submitted in Łódź). Notably, in each of the above cities final decision on project implementation was preceded by a competitive procedure, in which local communities were asked to vote on submitted projects. Hence, it was not always the substantive content of the project or its objective value that were decisive for its approval. Importantly, not every project shortlisted for funding was finally implemented. For example, in Poznań in participatory budgeting 2016 edition two projects were found unimplementable for various reasons. One of them, Winnice Poznania (Vineyards of Poznań) consisting in planting

grapevines on flood embankments of Ostrów Tumski island was classified as a green infrastructure project.

Table 1. Projects submitted and implemented in categories of environmental improvements

Category	Łódź		Katowice		Poznań		Total	
	S*	R*	S	R	S	R	S	R
Green infrastructure	46	14	19	5	18	6	83	25
Blue infrastructure	3	0	3	3	7	3	13	6
Nature protection	2	1	1	1	2	0	5	2
Protection of air and atmosphere	32	7	12	7	13	4	57	18
Taking care of pets	1	0	5	2	2	0	7	1
Waste management	0	0	0	0	2	0	2	0
Environmental education	3	0	0	0	1	0	4	0
Protection against noise	1	0	0	0	0	0	1	0
Total	88	22	40	17	45	13	172	52

S – submitted projects, R – implemented projects

Source: Author's own elaboration.

Table 2. Value of projects submitted and implemented in individual categories of environmental improvements (PLN)

Category	Łódź		Katowice		Poznań		Total	
	S	R	S	R	S	R	S	R
Green infrastructure	38.58	14.91	10.72	1.50	9.59	1.86	58.89	18.27
Blue infrastructure	1.65	0	2.01	2.02	3.88	2.49	7.54	4.51
Nature protection	0.12	0.05	0.06	0.06	0.34	0	0.52	0.11
Protection of air and atmosphere	28.76	4.78	3.25	1.56	8.18	0.6	40.19	6.94
Taking care of pets	0.006	0	0.54	0.1	0.21	0	0.736	0.1
Waste management	0	0	0	0	1.64	0	1.64	0
Environmental education	1.51	0	0	0	0.007	0	1.517	0
Protection against noise	0.3	0	0	0	0	0	0.3	0
Total	70.94	19.74	16.56	5.23	23.92	4.95	111.42	29.92

S – submitted projects, R – implemented projects

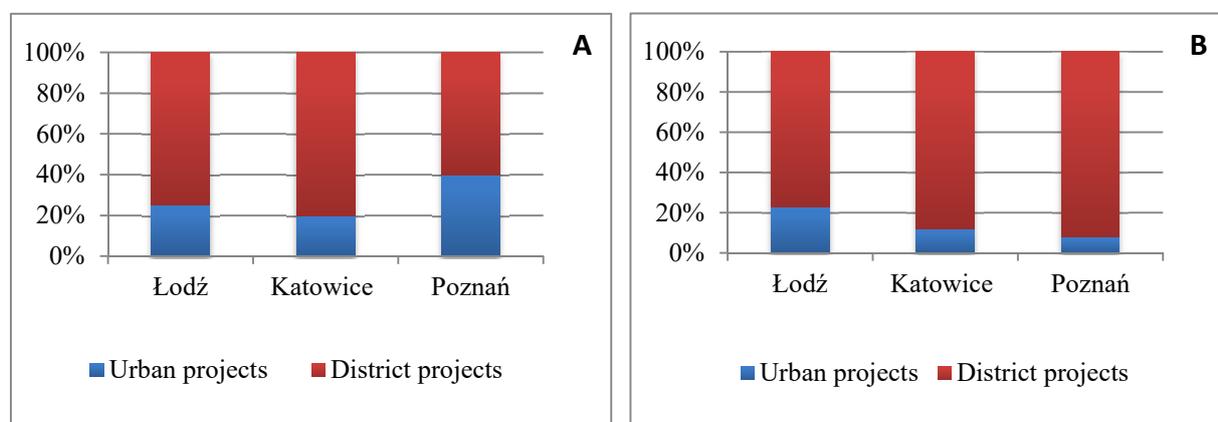
Source: Author's own elaboration.

It is also important that some projects were going beyond an investment, major repair or cleaning up intervention and exerted bigger impact. A series of projects were designed to widely resonate as social, educational, also in environmental education, measures or efforts intended to improve the quality of life of residents or tourist attractiveness of the city.

Projects that would receive the highest co-funding concerned the development and management of infrastructure in public places (parks, areas neighbouring lakes, zoos or district leisure and sports areas); average subsidies exceeded PLN 1m. The least costly projects involved planting trees and cycling infrastructure, their average value oscillated around PLN 100k.

Having analysed the impact of individual projects, we may conclude that it is similar across the cities. The pool of submitted projects was clearly dominated by local, district initiatives. In Katowice they represented almost 80% of all projects, in Łódź 75%, and in Poznań 60%. Among projects approved for implementation the share of local projects was even higher and amounted to 92% in Poznań, 88% in Katowice, and 77% in Łódź. When it comes to the value of groups of projects, local projects approved for implementation in Poznań were estimated at PLN 2.96m, in Łódź at PLN 11.74m, and in Katowice at PLN 3.64m. In the first two cities these amounts accounted for 60% of all funds earmarked for projects in the area of environmental improvements, while in Katowice the share reached 70% (Fig. 6).

Figure 6. Scope of projects in environmental improvements submitted (A) and approved for implementation (B)



Source: Author's own elaboration.

Such a big share of local projects, quantity- and value-wise, may testify to residents' engagement in their immediate neighbourhoods and their mobilisation to vote over preferred projects. Usually these actions directly translate into quality of space in which they live. They become active beneficiaries of transformations, use regenerated green areas, their neighbouring infrastructure, improvements and facilitations. Urban projects exert wider impact and cover also people who arrive at cities; they are usually more expensive hence interest in them is smaller which translates into smaller support of local communities.

4. Conclusion

Governance mechanisms can influence sustainable development linking social engagement with environmental improvements. Citizens' projects can contribute to reduction of environmental pressures and better urban well-being (European Environmental Agency, 2013). The survey of European citizen attitudes indicates that concern about environmental issues is high and residents of the cities strongly believe that state of the environment influences quality of their life (European Commission, 2014).

Studies conducted in selected cities and analyses based on them let us draw some general conclusions. Projects in the area of environmental improvements make a valid component of participatory budgeting: many of them are proposed by urban residents and their relatively big number is selected for implementation in voting. That is because residents realise that effects of these projects may importantly influence the quality of their lives. Hence, popularity of projects in green infrastructure and air protection (mainly bicycle routes) and much smaller support for projects in nature protection or environmental education. Projects directly relating to environmental education do not win much support in the community. However, we need to bear in mind that many projects focused predominantly on infrastructure or spatial development bring in substantial educational value.

Projects in environmental improvements are mainly local (district) ones. It shows how much residents care about their neighbourhood, the place where they permanently reside. This care reduces when we speak of space, which they visit more rarely and do not interact with directly. Nevertheless, a big group of postulated projects have a wide scope of impact even though they are district-oriented. We can also see a tendency of these projects to be part of a wider context of planning, e.g. projects in cycling infrastructure, building up natural system in cities.

Many projects were comprehensive and multi-component by nature and, besides the main goal of „environmental protection” we may identify complementary goals in them, e.g., improved image of a place, more attractive space or development of leisure function.

Participatory budgeting plays an important role in many aspects of urban life. It leads to improvements in biotic, abiotic but also in social aspects related to satisfaction and perceptions of the everyday environment. In terms of these complexity it is a key tool in accomplishing urban sustainability goals. The analysis shows that participatory budgeting has many potential benefits for local government and civil society alike. The examination of participatory budgeting experiences shows that this tool can lead to an increase in the quality of urban

environment to a certain extent. A comprehensive presentation of participatory budgeting is not within the scope of this article. Nevertheless we plan to develop this subject through more in-depth studies.

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***Budżet obywatelski jako narzędzie poprawy stanu środowiska przyrodniczego
w polskich miastach***

Streszczenie

Fenomen budżetów obywatelskich w polskich miastach świadczy o rosnącej świadomości roli mieszkańców w rozwoju lokalnym. Budżet obywatelski jest narzędziem pozwalającym na częściowe uspołecznienie polityki budżetowej jednostki terytorialnej. Energia społeczna wyzwolona poprzez inicjatywy i zgłaszane projekty pozwala na realizację istotnych z perspektywy mieszkańców działań poprawiających jakość i komfort życia w mieście. Problemem badawczym wokół, którego koncentruje się treść artykułu jest pytanie w jakim zakresie zainteresowanie mieszkańców związane jest z różnymi przedsięwzięciami i zadaniami, które bezpośrednio lub pośrednio dotyczą środowiska w ich miastach. Część empiryczna artykułu prezentuje analizę budżetów obywatelskich w Katowicach, Łodzi i Poznaniu i dotyczy projektów zgłoszonych w edycji 2015 roku, a realizowanych w 2016 roku. Celem artykułu jest identyfikacja aktywności mieszkańców wybranych miast w zakresie poprawy jakości środowiska poprzez zadania zgłaszane w formule budżetu obywatelskiego. Przeprowadzone badania wyraźnie wskazują, iż mimo widocznych różnic pomiędzy miastami budżet obywatelski jest ważnym obszarem kreatywności i innowacyjności mieszkańców na rzecz środowiska i jego jakości w mieście.

Słowa kluczowe: rozwój lokalny, budżet obywatelski, ochrona środowiska

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