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CONTEMPORARY TRENDS IN URBAN ALLOTMENT GARDENING: THE EXAMPLE OF FAMILY PLOTS IN WARSAW¹

Abstract: The study aims to gain an insight into current trends in the use of four selected allotment gardens (*rodzinne ogrody działkowe* – RODs) in Warsaw (Poland): ROD ‘Pratulińska’, ROD ‘Obrońców Pokoju’, ROD ‘Kolejarz’ and ROD ‘Zelmoł’. The main method used in the research was a survey of plot holders (structured interviews, n = 210). The findings suggest that holders are mainly older, retired people, but the number of younger plot holders has been increasing in recent years. Most live on huge estates in close proximity to the allotment gardens. The main motivations for having a plot are relaxation, gardening as a hobby and connection with the natural environment. Food production itself was not mentioned as a prior motivation. The meaning of having a plot corresponds with motivations. Some plot holders emphasize having their own, private place (a kind of second home, refuge, respite from city life). Most of the respondents have positive opinions regarding opening allotment gardens to local communities, although they are not very eager to participate in integrational events and activities organized by the Polish Association of Allotment Gardens (PZD) or others. The findings are in line with global trends presented in research exploring allotment garden recreational space in Poland and abroad.

Keywords: family allotment gardens (ROD), Polish Association of Allotment Gardens (PZD), urban recreational space, urban allotment gardening, Warsaw.

WSPÓŁCZESNE TRENDY W MIEJSKIM OGRODNICTWIE DZIAŁKOWYM NA PRZYKŁADZIE WYBRANYCH RODZINNYCH OGRODÓW DZIAŁKOWYCH (ROD) W WARSZAWIE

Abstrakt: Artykuł ma na celu charakterystykę aktualnych tendencji w użytkowaniu czterech wybranych ogrodów działkowych w Warszawie: ROD „Pratulińska”, ROD „Obrońców Pokoju”, ROD „Kolejarz” i ROD „Zelmoł”. Podstawową metodą badawczą był sondaż ankietowy przeprowadzony wśród działkowiczów (wywiad strukturyzowany, n = 210). Rezultaty analizy pokazują, że są nimi głównie osoby starsze, w tym emeryci, jednakże w ostatnich latach liczba młodszych użytkowników działek stopniowo wzrasta. Większość działkowców mieszka na osiedlach zlokalizowanych w bezpośrednim sąsiedztwie ogrodów. Główne motywacje posiadania działki to: wypoczynek, hobby ogrodnicze oraz kontakt z przyrodą. Popularna do niedawna produkcja własnych produktów rolnych nie została wymieniona jako istotna motywacja. Rola, jaką odgrywa użytkowanie działki, koresponduje z motywacjami. Niektórzy działkowicze podkreślają, że oznacza to posiadanie własnego miejsca (rodzaj drugiego domu, schronienia, wytchnienia od miejskiego życia). Większość respondentów pozytywnie ocenia proces otwierania ogrodów działkowych dla społeczności lokalnych, choć niezbyt chętnie uczestniczy w wydarzeniach integracyjnych organizowanych przez Polski Związek Działkowców (PZD) lub inne instytucje. Uzyskane wyniki są zgodne ze światowymi trendami, prezentowanymi w badaniach nad przestrzenią rekreacyjną ogrodów działkowych w Polsce i za granicą.

Słowa kluczowe: rodzinne ogrody działkowe (ROD), Polski Związek Działkowców (PZD), miejska przestrzeń rekreacyjna, miejskie ogrodnictwo działkowe, Warszawa.

1. INTRODUCTION AND THEORETICAL FRAMEWORK

The significance of family allotment gardens, which have been rooted in the European urban landscape for over 200 years, has been increasing (Bartłomiejski, Kowalewski, 2019; Mokras-Grabowska, 2020). Due to their long history, allotments are of interest to re-

searchers in many disciplines, including the spatial, economic and environmental (Acton, 2011; Cameron et al., 2012; Moskalonek, Połom, Puzdrakiewicz, 2020). Across Europe, diverse types of gardens exist, from those that focus on food production to being a place for gardening and recreation for local communities (Martens, Nordh,

Gonzales, 2018). Research studies mostly emphasize their positive features: an important element of city recreational space, promoting outdoor activities, as well as their economic, social and ecological significance. Moreover, noise reduction, biodiversity, food supply (nutritional self-sufficiency), intergenerational integration, and promoting family values are among their many other positive functions. It should be emphasized that in the contemporary world of urban sprawl and, consequently, shrinking areas of greenery, allotment gardens are not only green lungs for a city, but also a place where the whole community can relax, learn, integrate and spend free time. Allotment gardens situated in big cities are also extremely important for the sustainable development of urbanized areas, promoting a healthy lifestyle, high biodiversity and accessibility to for all age and social groups. Moreover, the change in their function from mainly agricultural-productive to recreational, opens them up for many innovative initiatives (Mokras-Grabowska, 2020). Their influence on improvements to physical and mental health is also emphasized. Summarizing, allotment gardens are multifunctional urban green recreational spaces. Some researchers claim however that their social, ecological and cultural functions are overvalued and idealized. There are problems connected with soil pollution, informal housing, controversial aesthetics, and what is more, a lack of accessibility to local communities (Bartłomiejski, Kowalewski, 2019).

Allotment gardens are understood as areas consisting of plots with a general area serving the common use of holders equipped with gardening infrastructure (Burgin, 2018; Dresher, Holmer, Iaquinta, 2006; Eidimtiene, Auzeliene, Daubaras, 2016; Fritsche, Klamt, Rosol, Schulz, 2011; Moskalonek, Połom, Puzdrakiewicz, 2020). They can be differentiated from other urban green areas such as parks, green corridors, urban forests, vertical greening and private gardens (Cameron et al., 2012). Currently, a lot of innovative leisure initiatives can be observed aiming at the animation of local communities (for families and neighborhood), thus, it is postulated that allotment complexes should be a part of green recreational systems, used not only by particular plot holders (Mokras-Grabowska, 2019).

The idea of allotment gardens was conceived in the 19th century during times of rapid industrialization in European countries, providing opportunities for city dwellers to produce food themselves due to socio-economic difficulties with food supply (Mokras-Grabowska, 2020; Szkup, Pytel, 2016; Vejre et al., 2016). Although they are present in many western European countries, they are perceived as characteristic of post-socialist cities. In Poland allotment gardening appeared in the second half of 19th century, arriving from Germany and developing most rapidly in Silesia (Śląsk), Wielkopolska and Pomerania (Pomorze) regions, but

also in the capital city of Warsaw (Wolaniuk, 1991). After World War II, the allotment gardening idea fitted perfectly into the aims of socialist ideology and became an essential feature for Polish middle-class households continuing a working-class tradition. It had a significant social function by enabling city inhabitants to have a place to relax at a low cost. In 1946, the decree nationalizing ownership of land allowed new allotment gardens to be easily created. Hence, during political surveillance under the communist regime allotment gardening flourished. In May 1949, the first law concerning workers' allotment gardens was passed; the next was in May 1981, when the Polish Association of Allotment Gardens (PZD) was created. In 2005 the name 'Family Allotment Gardens' replaced worker's gardens (*Ustawa*, 2005) but after the socio-economic changes connected with the fall of communism (1989) the number of gardens in Poland had declined (Dymek, Wilkaniec, Bednorz, Szczepańska, 2021; Szkup, Pytel, 2016). Neglected and abandoned gardens spoiled the landscape and views.

At present they are administrated by the Polish Association of Allotment Gardens (PZD), encompassing 4,601 gardens with 905,900 individual plots covering a total of over 40,186 hectares and are used by 10% of Polish society (Dymek, Wilkaniec, Bednorz, Szczepańska, 2021). According to the Allotment Gardens Act of 13 December 2013 they are a public utility (*Ustawa*, 2013). Their appearance is changing, vegetable patches and fruit trees are being replaced with new types of planting used for recreational purposes², ornamentality and large lawns in place of crops (Bartłomiejski, Kowalewski, 2019; Mokras-Grabowska, 2020). Ecological gardening in line with healthy and alternative lifestyle trends are developing as well.

Ninety percent of allotment gardens in Poland are located in urban areas (Klepacki, Kujawska, 2018). Unfortunately, their favorable location in Polish cities makes them attractive areas for development, vulnerable to functional transformation, and becoming a focus of interest for public and private investors (real estate agents, developers), and with public authorities who want to allocate the land for profitable sale or investment (Dymek, Wilkaniec, Bednorz, Szczepańska, 2021). Saving them depends on regulating their legal status. Classifying such gardens as allotment greenery in urban planning documents, may mean protecting them in future from other public or non-public purposes. Social activities aiming at the integration of holders and local communities can emphasize their significance and save them from possible closure.

In Warsaw there are 190 allotment gardens, mainly situated in favorable locations close to the city center (*Programy PZD*, 2019). Many do not have regulated legal status, and only 60% are classified as allotment greenery on spatial development plans or under the

conditions and direction for spatial development while the most attractively located become a focus of interest for public and private investors. However, their removal is not widespread and local authorities have to take into account the claims of their holders (including compensation and a replacement for a plot) (Bartłomiejski, Kowalewski, 2019).

The study explores recreational space and trends in the contemporary use of four selected allotment gardens in Warsaw: ROD 'Pratulińska', ROD 'Obrońców Pokoju', ROD 'Kolejarz' and ROD 'Zelmoť' situated in various parts of the city.

The aims of the article are:

- to examine current trends in the use of the recreational space of selected allotment gardens in Warsaw;
- to show the importance of allotment gardens among recreational urban green areas for city inhabitants (plot holders);
- to examine changes in recent years connected with opening the gardens to local communities, developing new recreational infrastructure and new social initiatives.

The analysis is supported by examples of similar research from world literature and compared with global trends.

2. MATERIALS AND METHODS

As mentioned above, the study explores the use of recreational space of four selected allotment gardens in Warsaw:

- ROD 'Pratulińska' – situated in Targówek District in Warsaw. It consists of 240 plots and was originally larger. Usually closed to local communities and open only for special events. Social initiatives organized on ROD 'Zasiejówka' include a community garden situated on the allotment, given free of charge by the allotment management, and used for ecological education, and the 'Kóło Gospodyń Wiejskich' initiative for women plot holders (workshops, lectures on urban gardening, meetings with experts).
- ROD 'Obrońców Pokoju' – situated in Mokotów District in Warsaw. This is the oldest allotment garden in Warsaw founded in 1902 and consisting of 280 plots. Due to its location in the city center, plots are purchased by many new, young city dwellers. The garden is on the register of monuments and is open for local communities all year round from 6.00 am to 10.00 pm. Additional features include a monitoring system and recreational infrastructure for social meetings. It cooperates with nearby housing estate management and local communities.
- ROD 'Kolejarz' – situated in Praga District in Warsaw, a part of the larger ROD 'Waszyngtona'. The garden

is open for local communities all year round from 6.00 am to 10.00 pm.

- ROD 'Zelmoť' – situated in Ochota District in Warsaw, it consists of 165 plots. Usually closed to local communities. Plot holders are very active and engaged in organized events (e.g. culinary workshops, meetings for older plot holders, yoga practices, exchange of crops).

These allotment gardens were selected due to participation in the 'Naprzód Działki!' program connected with opening gardens for local communities through the organization of integrational, intergenerational events. The program was initiated by the city council in Warsaw (City Greenery Administration) in cooperation with the non-governmental organization 'Rozkwit'³. Its aim is to support allotment gardens in Warsaw and to increase their accessibility to local communities through organizing social events (meetings with experts, outdoor integrational and educational meetings etc.). The activities launched in the program have raised the importance of allotment gardens within the whole greenery system of Warsaw. The selection of allotments was based on earlier consultations with 'Rozkwit' members and the most interesting were those engaged in the program.

The method used in the article was a survey (structured interview), conducted among plot holders from selected allotments, involving a total of 210 participants (n = 210). Moreover, desk research was used based on a review of domestic and foreign literature and an analysis of Polish Association of Allotment Gardens (PZD) documents.

The research was conducted in August 2021 by trained moderators. The selection of the respondents (plot holders) was based on their availability (after prior appointment with help of allotment management). The interviews were conducted personally by the moderators and a significant number of responses were obtained. The questionnaires consisted of 13 questions and concerned: the period they have been plot holders, main motivations, frequency of visits, activities undertaken, recreational infrastructure possessed, the meaning of the plot in their lives, participation in events organized for the allotment garden community and the opinion of holders about opening the gardens to wider communities and visitors. Eight of the questions were closed and five open-ended.

3. FINDINGS

The socio-demographical data of the respondents is in line with general trends (Poniży et al., 2021; Szkup, 2013). Looking at the gender division of interviewed plot holders, a slight majority of women is noticeable

(55.7%). Plot holders between 61–70 (31%) and 71–80 (18.1%) dominated, thus, it is not surprising that there was also a high proportion of retired people (51.4%). However, it must be noticed that younger plot holders constituted quite a big cohort – 30.4% of interviewed were aged 27–50, mainly from ROD 'Pratulińska' who have been using the allotment mostly since 2000. As far as education is concerned, those completing just secondary education are most common (49.5%), but it must be highlighted that those with higher education were also very common (34.3%, evenly distributed across all gardens). The material situation of plot holders was rather good with their incomes usually covering their needs (only 4.3% of respondents admitted that their material situation was poor). Furthermore, the vast majority of respondents live in close proximity to the allotment gardens investigated, usually less than 15 minutes away on huge estates (blocks of flats – 98.1%). The vast majority of respondents have been using the allotment since 2000 (60.9%) and it should be underlined that 6.2% have been leased since 2020 which can be related to the outbreak of the COVID-19 pandemic, as people were looking for a kind of refuge and a piece of 'own' land to escape from everyday problems and to relax.

Motivations for having a plot conform to general European trends where the most usually mentioned are well-being, relaxation, outdoor recreation, food production, connection to nature and social interaction (Acton, 2011; Martens, Nordh, Gonzales, 2018; Nordh, Wiklund, Koppang, 2016; Poniży et al., 2021; Szkup, 2013). In the research, the main reasons for acquiring a plot were (Table 1): relaxation (33.3%), gardening as a hobby (16.2%), connection to the natural environment (13.8%) and

family inheritance (12.4%). Amongst other important motives were a place for rest with children (9%), proximity to place of residence (5.2%), willingness to have one's 'own' place (4.8%) and retirement (3.3%).

Some respondents also mentioned economic, health and social reasons, as well as respite from city life and the COVID-19 pandemic outbreak. It should be underlined that food production itself was not mentioned, and it may be understood that the productive role of allotment gardens is less important for Warsaw holders, although 89.5% of respondents cultivated crops as a hobby in their gardens. Similar conclusions were made by Moskalonek, Połom and Puzdrakiewicz (2020) with only 4.7% of respondents replying that the dominant role of allotments should be cultivation (without recreation). However, other research shows that motivation connected with growing one's own vegetables is one of the most important reasons for acquiring a plot and is often related to experiences from childhood and traditions in the family (Nordh, Wiklund, Koppang, 2016). Bartłomiejski and Kowalewski (2019) claim that transformations of allotments from cultivation ('vegetable patches') into recreational sites increases the demand for ornamental plants and reduces rare varieties. However, it should be emphasized, that in some countries the production of food on allotment gardens is still important (e.g. Portugal, Estonia, the UK) (Poniży et al., 2021). As Acton (2011) underlines, allotments are usually used for growing fruit and vegetables for personal consumption. Moreover, so-called 'eco-conscious city dwellers' have appeared, treating the plot as a sustainable place for an alternative way of living, including collecting seed, producing non-genetically modified food and composting waste.

Concluding, the study suggests that the function of allotment gardens in big cities in Poland is evolving from typically for cultivation to a mixed one combining recreational aspects with growing plants for food.

Analysis of the frequency of visits to plots revealed that their holders visited them mainly in the period from April to October (from spring to early autumn) which is also in line with general trends (Nordh, Wiklund, Koppang, 2016). The respondents admitted that they often spend their holidays visiting the gardens instead of leaving the city (important economic motivation). The trend is also supported by other research, according to Moskalonek, Połom and Puzdrakiewicz (2020) 14.7% of plot holders of ROD 'Oaza' in Tri-City in Poland admitted to living in their garden houses during the summer. Nordh, Wiklund and Koppang (2016) notice in their research that almost all interviewees lived in the gardens during the summer season. Some holders visited their plots also in the low season (late autumn – winter), for instance 13.8% in December and 13.3% in February, usually connected with necessary winter gardening work and checking the plot.

Table 1. Main motivations of interviewed plots holders (multiple choice)

Motivations	Percentages (against all answers)
Close proximity to place of residence	5.2
COVID-19 pandemic outbreak	1.0
Retirement	3.3
Gardening as a hobby	16.2
Relaxation	33.3
Friends' persuasion	1.9
Respite from city life	1.4
Family inheritance	12.4
Connections to natural environment	13.8
Cheap leisure	1.0
Willingness to have one's 'own place'	4.8
Social integration	0.5
Place for rest with children	9.0

Source: author.

As far as days of the week are concerned, it can be seen that weekend visits are the most common. On weekdays respondents occasionally pay a visit, usually after working hours, depending on weather conditions. 46.6% visited their plots every day in the high season due to living nearby.

Respondents usually spent their free time in allotment gardens with family and close relatives (72.9%), partners (58.6%) or friends (51.9%). Only 9% spent time there alone. Holders were asked about the most common activities they undertake during their stays on the plot. The question was open-ended, and amongst the activities gardening (84.8%) and relaxation (45.2%) were the most common (Table 2). Barbecues with relatives and friends (6.7%) and playing with children (5.7%) were also common. 68.1% of holders have recreational infrastructure on their plots including hammocks, swings, deck chairs, grills, small swimming pools and trampolines.

Table 2. Activities undertaken by interviewed plot holders (multiple choice)

Activities	Percentages (against all answers)
Reading books	0.5
Barbecues with relatives and friends	6.7
Gardening	84.8
Professional work	0.5
Playing with children	5.7
Relaxation	45.2
Meetings with friends	1.4

Source: author.

Looking at the meaning of leading a plot holders' life, correspondence with motivations was found. The holders mainly admitted to the importance of being a holder because of wide recreational opportunities: rest, relaxation, a place for holidays (53.8%) (Table 3). Other answers were of less importance: place attachment ('allotment as a place for a living') (6.2%), connections with nature (4.8%), stress reduction, escapism (4.8%), but also happiness, respite from city life and gardening as a passion or hobby (3.3% each).

Some of the holders admitted to an economic purpose (cheap place for rest and holidays) or psychological connected with having a kind of refuge, 'second home' (each 2.9%). Respondents emphasized having one's 'own' place/land ('second home', 'oasis in the city', 'garden as private space'), comfort, freedom, calm but also sentimental and integrational meaning. Similar findings are found in Bailey and Kingsley (2020), Nordh, Wiklund and Koppang (2016) and Martens, Nordh and Gonzalez (2018).

Having a plot entails a great deal of social interaction, both between holders and within families (Nordh,

Table 3. The meaning of leading a plot holders' life (multiple choice)

Meanings	Percentage (against all answers)
Rest, relaxation, 'own' place for vacation	53.8
Second home	2.9
Plot as a 'place for living'	6.2
Integrational meaning	1.0
Connections with nature	4.8
Contact for children with nature	1.0
Stress reduction, escapism	4.8
Respite from city life	3.3
Gardening as a hobby, passion	3.3
Happiness	3.3
Sentimental meaning	1.9
Calm	1.4
Freedom	0.5
Comfort	0.5
Rest with children	1.9
Economic meaning (vacations)	2.9
Satisfaction	0.5
Having one's 'own' place/land	0.5

Source: author.

Wiklund, Koppang, 2016). According to the research, the vast majority of respondents feel community ties with other plot holders from the allotment garden (78.6%), but they do not usually take part in events organized on the allotment gardens (69.5%). They spend time on their own plot and do not feel the necessity of participating in such events. Amongst the events taken part in, 'plot holder days' (40.6%) and 'various meetings' (20.3%) were of greatest importance. The other events mentioned were 'Harvest Festival' (7.8%), various festivals, picnics and fairs (6.3%), workshops (4.7%) and 'End of season' (4.7%).

Allotment gardens in Poland are usually inaccessible to non-users but there is a trend to opening them to local communities. Today, allotment gardens all over the world host events which are intended to reach out to local communities and involve them with urban gardening activities (Acton, 2011). The opinion of respondents about opening allotments to city inhabitants revealed that 41.1% are interested, but 14.3% claimed that the gardens should be open but only according to certain rules. It has been recommended that they should be accessible in a limited way regarding opening hours, safety rules, monitoring etc. Thus, opening gardens requires making new investments like additional lights public toilets, benches and security. Ten percent of holders admitted that opening allotments to local communities is often connected with damage, break-ins and burglaries.

In 2015–2019 the Polish Association of Allotment Gardens (PZD) implemented several development programs⁴, and as a result, the social significance of allotment gardens and their role in urban greenery has been recognized (Mokras-Grabowska, 2020). An important objective of the programs is to open allotments to local communities which would enable them to participate in the life of the gardens. Opening gardens for city inhabitants is expected to rise as it is believed that they should not be closed units, inaccessible to the inhabitants and 'detached' from urban recreational areas (Duś, 2011). The programs respond to the recreational and social needs of the local communities having pro-social and educational functions as well. In turn, allotments will enjoy increasing public support and popularity, which means that their role in urban greenery will be appreciated. The activities proposed in the programs are intended to merge the gardens with the city and local communities through encouraging social interaction (*Programy PZD*, 2019).

There are also various examples of bottom-up, pro-social initiatives aiming at the social integration of holders with local communities. One example is the '*Naprzód Działki!*' program, first organized in 2019. Surprisingly, research has shown that only 7.1% of respondents had heard about the program. From those participating, 26% had problems specifying what activities were organized within it. Twenty percent of respondents admitted to participating in picnics and meetings, 13.3% in food and harvest tasting, 13.3% in building composters, and meetings with holders (also with holders from community gardens from France and Germany⁵). The data showed poor information connected with program activities, which was underlined by 6.7% of allotment holders. It should be underlined that the first program was initiated in 2019 and the research was conducted in 2021, due to sanitary restrictions connected with the COVID-19 pandemic. Hence, problems identifying particular activities may be connected with this.

4. CONCLUDING REMARKS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study shows that allotment gardens are important multifunctional urban green spaces in Warsaw. Urban green spaces provide numerous ecosystem services for inhabitants giving people opportunities to experience nature in the city. Although the functions of allotment gardens have been changing as a result of general socio-economic transformations, they still allow people to be close to nature, establishing and maintaining social relationships and relaxing, and growing their

own crops (mainly fruit and vegetables), although nutritional self-sufficiency is no longer the main function. They are areas of high social significance used for leisure, and recreational purposes have definitely begun to dominate. Plot holders are still mainly older, retired people, but younger users occur as well, and in the cases analyzed they constitute quite a significant proportion. Surprisingly, holders with higher education are found as well. Moreover, in accordance with global trends, the vast majority of holders live in proximity to allotment gardens, a meaningful advantage as living in apartments they lack direct contact with the natural environment. Visits to plots in the summer season and spending holidays and weekends there is a dominant tendency, as well for their economic importance. Furthermore, the example presented shows that acquisition of a plot has usually taken place in the last two decades, along with a trend in the last two years due to the COVID-19 pandemic outbreak. The main motivations of respondents are in line with global trends and include relaxation, gardening as a hobby and connection with the natural environment. It is interesting that food production itself was not mentioned by the holders, although the vast majority of them cultivate edible plants (mainly as a hobby and for additional food). The transformation of function from vegetable to recreational or mixed, combining recreational aspects with obtaining crops, is found instead. Motivations seem to be in line with activities undertaken, as well as their meaning in a plot holders' life. Wide recreational opportunities (rest, relaxation, one's own place for holidays with access to the outdoors) are especially appreciated, but also having a kind of private space, refuge, second home and treating a garden as a respite from city life (the feeling of ownership and freedom). Having a place for children is also one of the motivations. Integrational aspects seem to be important for respondents, but although they feel connections with other holders, they are not much interested in participating in organized social events, including participating with local communities. Holders prefer spending time on their own, and although they are willing to open the gardens to local communities, they are also afraid of it due to the risk of burglaries and property damage.

Summarizing, allotment gardens constitute an important place for the inhabitants of Warsaw to spend free time. The benefits from their existence in urban green areas are both tangible and intangible, and include space for recreation and social interaction. They offer a space for solitude as well. Although their functions have recently been changing, it is postulated that allotment gardens should be preserved as productive and 'living' spaces for leisure and social integration which can strengthen their role, preserved from closure and saved for future generations.

ENDNOTES

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² According to research conducted by Polish Association of Allotment Gardens (PZD) 21.2% of the allotment gardens included in the study were purely recreational plots, without fruit and vegetables (*Kim są polscy działkowcy?*, 2011).

³ The organization is a bottom-up initiative functioning since 2017, whose aim is to cooperate for sustainable development goals in urban greenery areas, especially allotment gardens.

⁴ Including 'FAGs Infrastructure Modernization Programme', 'FAGs Development Open Program', 'Modern Development and Use of Allotments to Match the Needs of Contemporary Families', 'Polish Association of Allotment Gardens Open Educational Programme', 'Safe Allotment Gardens Open Programme'.

⁵ Meetings were organized within international program 'On y va' aiming at exchange of experiences of city gardeners. Representatives from Himmelbeet community garden from Berlin and Saluterre community garden from Bordeaux visited FAGs in Warsaw (i.a. FAG 'Pratulińska', FAG 'Obrońców Pokoju').

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