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Conflict or Collaboration in the Management of Urban Green Areas: Activists vs. Decision-Makers

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Abstract

Recent decades have been marked by a growing prominence of grassroots initiatives to protect urban green areas (UGAs), bringing into view a persistent divergence between activists and decision-makers in post-socialist cities undergoing socio-ecological transitions, in particular a tension between development pressure and the need to protect valuable UGAs. These conflicts are especially pronounced in contexts of internal suburbanisation, where peripheral green land is converted into development reserves faster than planning systems can respond. Using environmental justice (EJ) as the analytical framework, this study examines how grassroots activists challenge governance processes around UGA protection in Polish metropolitan areas: Warsaw, Kraków, Wrocław, and Gdynia (the Tricity). The research is based on a qualitative analysis of four case studies of local grassroots initiatives, drawing on in-depth interviews with activists, focus group interviews with decision-makers, and a review of planning documents. The findings show that conflicts over UGAs reflect compound environmental injustices across distributive, procedural, and recognitional dimensions, shaped by post-socialist planning legacies and suburbanisation pressure. Performative consultations and the marginalisation of community ecological knowledge recur as systemic rather than case-specific failures. Activist campaigns do produce results, but the gains are uneven: Green spaces get partially protected, yet the underlying procedural and recognitional injustices rarely get resolved. Rather than being integrated into governance, activists remain on the outside, compensating for gaps that formal planning systems and participation mechanisms leave unaddressed. The findings also suggest that spatial location, not only socio-economic position, functions as an independent axis of environmental marginalisation in post-socialist suburban contexts.

Keywords

environmental governance; environmental justice; environmental planning; grassroots movements; urban green areas

1. Introduction

Projects led by urban activists to protect urban green areas (UGAs) have been very evident in cities in recent decades. Local environmental conflicts often arise as a culmination of long-standing social injustices or environmental degradation (Boone & Modarres, 2006) and are particularly intense when differing visions of UGA management, expressed by local activists and municipal authorities, collide. Such tensions reflect broader challenges that post-socialist cities face during socio-ecological transitions, namely balancing economic investment pressures with the protection of valuable UGAs.

Over the last few years, environmental justice (EJ) has received growing attention in Central and Eastern Europe (CEE; Steger & Filčák, 2008). Studies have explored struggles over green spaces as expressions of EJ in various contexts (A. Haase et al., 2022; Kronenberg et al., 2023; Onose et al., 2023). Research on EJ has also highlighted the importance of procedural justice, for instance by analysing how environmental NGOs have gradually influenced post-socialist environmental policy (Szulecka & Szulecki, 2019). Alongside distributive questions of who has access to green space, the procedural and recognitional dimensions of EJ—whose voice counts in planning decisions, and whose values and ecological knowledge are acknowledged—have emerged as particularly significant in contexts where formal participation mechanisms remain weak or inconsistently applied.

Despite growing interest in EJ, research on residents' and activists' involvement in related movements remains uneven across spatial contexts. While existing studies shed light on environmental struggles in Western Europe (e.g., Olsson et al., 2020) or changes in the policy of environmental NGOs or grassroots movements (e.g., Buzogány et al., 2022; Sotiriou & Petropoulou, 2022), there is still a significant gap in the literature regarding local activism around UGAs in post-socialist cities. Although EJ provides the broader conceptual framework for this study, the analysis focuses primarily on grassroots activists shaping governance processes around UGAs. Activists are increasingly recognised as important actors in environmental governance: They may influence decision-making processes, community mobilisation, and the protection of UGAs. Their activities therefore offer an important lens through which to examine procedural justice, understood as the fairness and inclusiveness of decision-making processes affecting UGAs. Understanding activists' strategies, motivations, and interactions with municipal authorities is crucial for explaining how EJ is negotiated and enacted in post-socialist cities.

The main objective of the study is to analyse the forms and mechanisms of civic engagement in the protection of green spaces in Polish metropolitan areas. The research addresses the following questions:

1. How do grassroots movements challenge planning and governance processes concerning the protection of local green areas?
2. What factors trigger conflicts over UGAs?
3. How do activists and decision-makers differ in their views on the management and protection of UGAs?

We define UGAs as vegetated spaces located within urban environments, including both natural and semi-natural areas irrespective of their size, ownership, and land-use designation. This definition is situated within the broader conceptual framework of green infrastructure applied in European Union policy documents, where green infrastructure is understood as a spatially integrated network of natural and

semi-natural areas including natural features containing water, such as lakes, rivers, wetlands, and coastlines, strategically planned and managed to enable multifunctionality and the provision of diverse ecosystem services (ESPON EGTC, 2019).

The study adopts a qualitative research design to explore the complex processes of environmental activism and decision-making concerning the management of urban greenery. Our material combines various data sources, including in-depth interviews, focus group interviews, field observations, and content analysis of strategic and planning documents as well as media discourse concerning local conflicts.

2. Theoretical Framework

2.1. Urban Conflicts and EJ in Post-Socialist Cities

The clash of different interest groups and the occurrence of conflicts in a relatively small space is a natural dynamic of social processes taking place in cities. As geographers and planners currently point out, cities are complex phenomena constituted of ever-changing relations (Healey, 2007). Conflicts over UGAs typically emerge where competing visions of land use collide: Between residents who attach environmental, recreational, or place-based value to particular spaces and decision-makers or investors who prioritise their development potential. These tensions tend to concentrate where rapid urban growth creates sustained pressure on green land that formal planning systems have not adequately protected. Understanding such conflicts requires both a spatial and a justice perspective to attend to the conditions that produce them and to the inequalities in power and recognition they express.

One of the phenomena that strongly contributes to the growing spatial and environmental conflicts in post-socialist cities is the expansion of urban development into UGAs as a result of urbanisation and suburbanisation processes. In post-socialist conditions, this phenomenon has a specific character shaped by many years of functioning in a centrally planned economy. During that period, spatial development did not reflect the real locational value of land or market pressures. Change only occurred after systemic transformation, when the shift to a capitalist model triggered simultaneous processes of suburbanisation, deurbanisation, and reurbanisation (Lorens, 2005).

After 1989, Poland and all other post-socialist countries introduced a spatial planning system based on good European practice, incorporating a municipal planning authority, public participation, respect for property rights, and environmental protection. However, the legacy of socialist planning with its particular approach to private property, the market and spatial conflicts, results in inconsistent responses of public authorities towards capitalist economic forms such as land speculation (Nowak et al., 2022).

A major challenge observed in Polish metropolitan areas in the early 21st century was the limited coverage of local zoning plans, with spatial development often regulated through individual planning decisions. In addition, the planning system remains fragmented due to frequent legislative changes and the introduction of so-called “special laws” targeting specific sectors (e.g., infrastructure or multi-family housing), which often bypass standard planning procedures. This reactive rather than active character of post-socialist urban planning seems to be one of the main barriers to an integrated spatial and transport planning system (Taczanowski et al., 2026) and contributes to the escalation of conflicts related to anthropogenic pressure.

Population concentration in Poland has increasingly occurred in major urban centres and their suburban zones, with the highest growth rates observed in the most attractive metropolitan areas, including Warsaw, the Tricity, Poznań, Wrocław, and Kraków (Węcławowicz et al., 2006). This concentration is particularly pronounced in suburban areas, where migration rates remain high and positive. As a result, suburbanisation and metropolisation processes have often been rapid, spatially chaotic, and weakly coordinated (Śleszyński et al., 2020).

One manifestation of these dynamics is internal suburbanisation, involving the relocation of residents from densely populated districts to peripheral areas still located within the city's administrative boundaries. Unlike classical suburbanisation, which typically extends beyond the city limits, internal suburbanisation takes place inside the administrative borders of the city, often on previously undeveloped green or open land. This was possible due to a large supply of land suitable for development, which previously—often as green areas, wasteland, or zones with extensive functions—had not been intensively used (Lorens, 2013). However, this expansion generated numerous spatial conflicts related to land use change, as rapid suburbanisation transformed poorly developed areas into urbanised zones, creating tensions between residential and industrial development and the preservation of green space, while also contributing to habitat fragmentation and the degradation of ecosystem services (Le et al., 2024; Mazur, 2022; Yu et al., 2023). These changes also generated social and economic tensions. In post-socialist cities, the dominance of property rights and individual interests over collective needs—such as maintaining access to recreational green spaces—became a key source of conflict (Mantey, 2016). Suburbanisation brought economic benefits by stimulating development and investment activity, but often also resulted in environmental degradation and worsened living conditions due to poor management (Le et al., 2024). A noticeable gap emerged between planning policy objectives and actual practice, leading to chaotic land development and increasing functional conflicts (Dörder, 2025; Tiitu et al., 2018).

These conflicts can be interpreted through the lens of EJ, which emphasises equitable access to environmental goods across socio-economic groups, particularly those most vulnerable to exclusion. EJ encompasses three interrelated dimensions: distributive justice (fair allocation of resources), procedural justice (inclusive decision-making), and recognitional justice (recognition of diverse values and needs within non-discriminatory social relations; see Low, 2013; Schlosberg, 2009; Walker, 2012). In this perspective, conflicts over UGAs reflect not only competing land-use interests but also broader inequalities in access to environmental resources and participation in decision-making processes.

2.2. Equal Access to UGAs as a Dimension of EJ

Ensuring equitable access to UGAs is a key dimension of EJ. Biernacka et al. (2020) stress the importance of assessing both the availability and quality of UGAs for a range of different social groups. While people may live with varying amounts of green space, everyone should have access to a minimum level of it (Walker, 2012). Studies have explored disparities in the distribution and accessibility of green areas (Olsson et al., 2020; Wolch et al., 2014), showing that the spatial distribution of environmental amenities often mirrors broader patterns of social inequality.

This issue is particularly acute in post-socialist countries, where rapid transitions from state regulation to highly liberal economies profoundly reshaped power relations and urban planning priorities (Kronenberg et al., 2020).

In many post-socialist cities, accelerated urban development led to the loss of green and blue spaces, triggering social tensions and, in some cases, the emergence of urban activism (Onose et al., 2023; Sechi et al., 2022).

Research indicates that the availability, accessibility, and attractiveness of UGAs remain low priorities in policy agendas, while procedural justice—citizens' participation in planning processes—remains limited (D. Haase et al., 2017; Kronenberg et al., 2023). In post-socialist countries, the importance of UGAs is downplayed in legal documents and in governance (Kronenberg et al., 2020). As a result, excessive urban investment and privatisation have intensified spatial inequalities, noise, and congestion, and reduced opportunities for informal social interaction (Kabisch & Haase, 2014; Westerink et al., 2012).

2.3. Grassroots Initiatives and EJ in Urban Greenery Governance

Grassroots urban initiatives increasingly respond to long-standing forms of environmental injustice. Research shows that bottom-up mobilisation can promote more just and sustainable neighbourhoods, influence urban policy, and support equitable access to urban greenery (Anguelovski, 2015; A. Haase et al., 2022; Hess & Satcher, 2019; Olsson et al., 2020; Oscilowicz et al., 2025; Sotiriou & Petropoulou, 2022).

In post-socialist cities, civic activism has evolved from limited participation into a more dynamic form of urban citizenship (Buzogány et al., 2022; Domaradzka, 2022). In Poland, this trend is reflected in the rise of new urban activism, which broadens the social base for non-professional civic organisations and creates new opportunities for EJ-oriented movements (Szulecka & Szulecki, 2019).

Grassroots struggles for the protection and equitable governance of urban natural resources gain significance in the context of climate change. Urban greening efforts undertaken by residents often go beyond conventional mitigation and adaptation approaches, challenging existing power relations and emphasising the needs of vulnerable groups (Bahadur & Tanner, 2014). Studies underscore the need to integrate nature-based solutions, maintain green infrastructure, and involve communities in adaptation planning to address social inequalities and strengthen resilience (De Rosa et al., 2022).

3. Material and Methods

This research is based on a combination of various data sources, including in-depth interviews, focus group interviews, field observations, analysis of planning documents, and media discourse.

A comprehensive review of grey documents from each selected city was conducted to understand the formal processes and frameworks governing UGAs. Documents analysed included city development strategies, studies of the conditions and directions of spatial planning, provisions for urban greenery, and local spatial development plans. The analysis focused on finding references to case studies and policies related to the management of UGAs. Additionally, local news articles on the cases selected were collected and analysed to gather public opinion and media framing of the environmental conflicts investigated. Field observations were carried out for a deeper understanding of the local environmental context.

Four Polish metropolitan areas—Warsaw, Kraków, Wrocław, and Gdynia (the Tricity)—were selected for analysis due to the high intensity of social conflicts over UGAs, which provide a relevant context for

examining the dynamics of bottom-up environmental initiatives and emerging adaptive responses to climate change. The selection is further supported by the rapid development of these areas, ongoing suburbanisation processes, population growth, and a broader shift towards a neoliberal spatial economy (Figure 1).

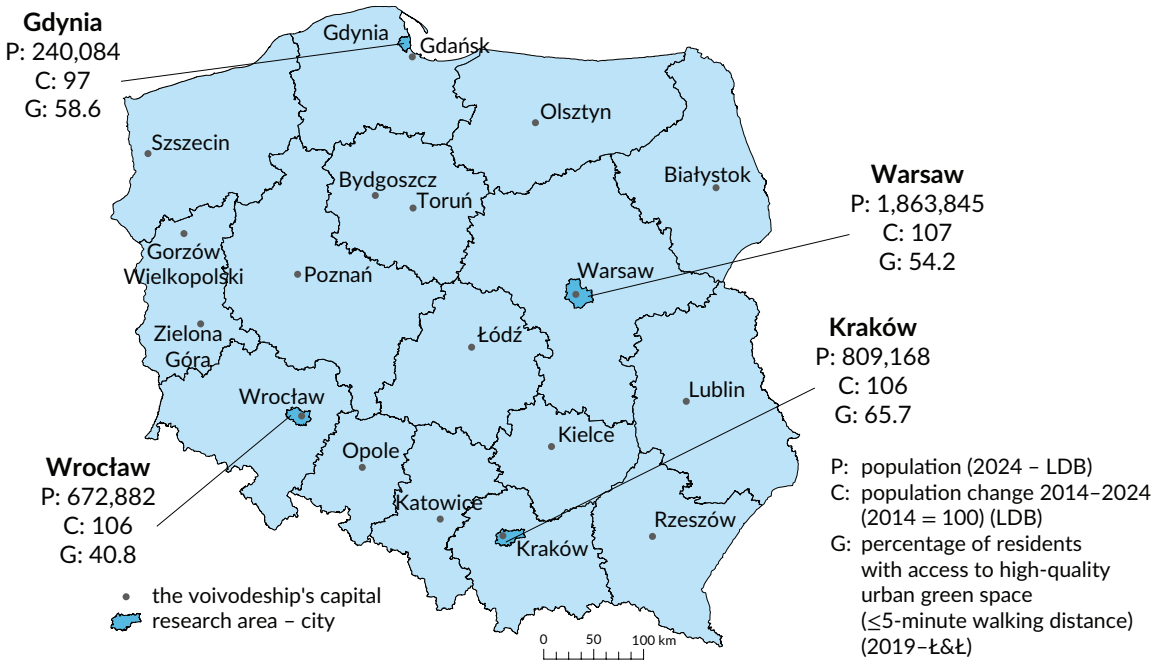

Figure 1. Selected case studies in Poland. Notes: High-quality urban green space is defined by Łachowski and Łęczek (2020) as biologically active areas with remote sensing vegetation index NDVI >0.6. Source: Based on data from Statistics Poland and Łachowski and Łęczek (2020).

The empirical component focuses on four case studies located in major Polish urban areas: Kraków (Kliny Meadows), Warsaw (Wawer Bend), Wrocław (Mokrzański Forest), and Gdynia (Redłowska Meadow). The cases investigated show how differently conflicts over and collaboration activities on UGAs unfold in post-socialist landscapes (Figure 2). Most cases emerge in urban peripheral zones affected by ongoing suburbanisation processes and the fragmentation of governance, where development pressures and land-use competition are particularly intense. In Kraków, the case of Kliny Meadows shows how hard it can be to balance new housing development with the protection of ecologically valuable green areas on the city's southern and western edges: Places affected by suburban growth and housing sprawl. In Warsaw, the dispute over the Wawer Bend reveals the everyday complexity of defending wetlands in a rapidly changing city, where fragmented land ownership and speculative investments often override environmental concerns. In Wrocław, the Mokrzański Forest example captures how urban fringe communities are still fighting against tree felling and the spread of suburban development. The Redłowska Meadow in Gdynia highlights the vulnerability of coastal and riverine greenery to metropolitan expansion and commercial redevelopment. The analysis of the case studies also included spatial data analysis using GIS techniques based on planning documents.

Figure 2. Case studies: Main problems.

From 2022 to 2024, we conducted 12 in-depth, audio-recorded interviews with environmental activists representing local initiatives, environmental organisations, and grassroots movements. Four respondents were interviewed in Kraków (R1–R4), representing Rescue Action for Kraków, Green Kliny, and the Society for Nature Conservation; four in Warsaw (R5–R8), representing the Zakole Group, the Wetland Protection Centre, and The City is Ours; three in Wrocław (R9–R11), representing Save Mokrzański Forest, the Wrocław Climate Protection Coalition, and the Foundation for Sustainable Development; and one in Gdynia (R12), representing Meadow for Everyone. Participants were recruited through local grassroots initiatives and social media platforms. Each interview lasted approximately 90 minutes and followed a semi-structured format. The research protocol was approved by the Scientific Research Ethics Committee at the Jagiellonian University (decision number 11/KEBN/WGiG/2023). An operational model of the analysis is presented in Figure 3.

The study also involved three focus group interviews with municipal authorities, supplemented by three individual interviews where scheduling conflicts prevented participation in the group sessions. Participants included city councillors, representatives of municipal green-space authorities, urban forests administrations, and departments responsible for environmental management, climate policy, sustainable development, and spatial planning. Respondents represented institutions in Kraków (R13–R19), Warsaw (R20–R23), and Wrocław (R24–R29). Each session lasted approximately 60 minutes and was conducted using a pre-planned discussion guide.

Interviews with activists focused on how they became involved in defending UGAs, what motivated them, and which strategies they found most effective. They described their actions, key turning points, and their interactions with local authorities, including whether their ideas were reflected in city policies. Focus groups with decision-makers explored their perspectives on managing and developing UGAs, including everyday constraints such as limited budgets, investment pressure, and the need to balance environmental goals with urban growth. The material was analysed using inductive thematic coding in MAXQDA. The coding covered themes such as activities, motivations, tools, challenges, success factors, environmental awareness, cooperation, and perceptions of activism, as well as broader changes in urban greenery management.

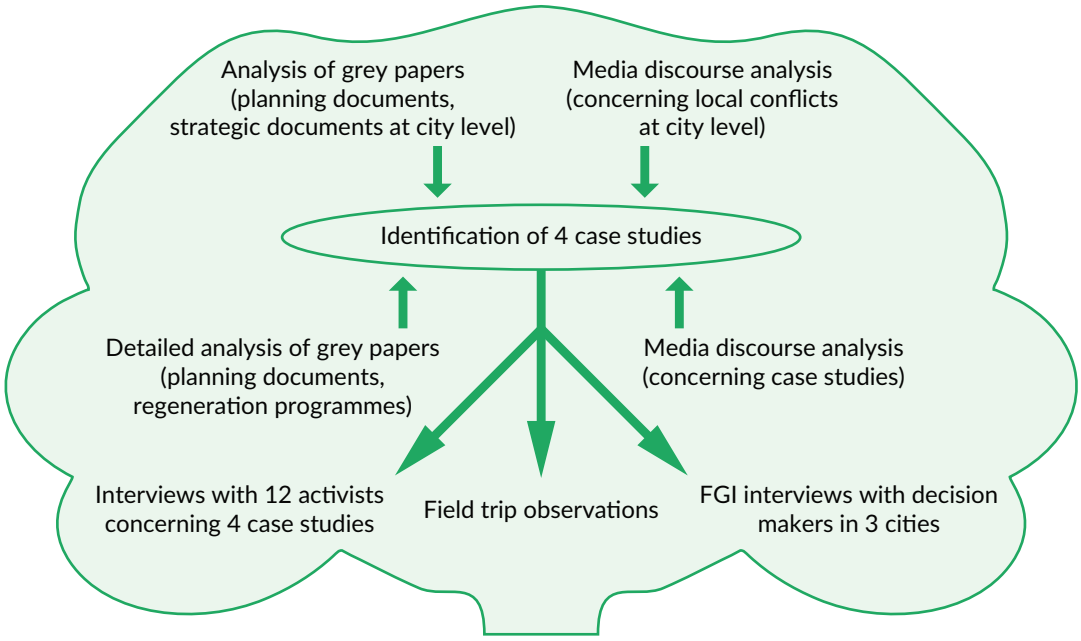

Figure 3. Operational model of analysis.

Environmental advocacy was carried out by diverse actor constellations (Figure 4) rather than by homogeneous activist groups. Participants included local residents, neighbourhood associations, informal grassroots initiatives, environmental NGOs, experts, and, in some cases, local politicians. Many activists were residents directly affected by the anticipated loss of UGAs and were motivated by concerns related to quality of life, access to nature, environmental protection, and neighbourhood identity. While the study did not systematically collect socio-economic data on participants, Figure 4 illustrates the main actor groups involved in the analysed conflicts and their relationships.

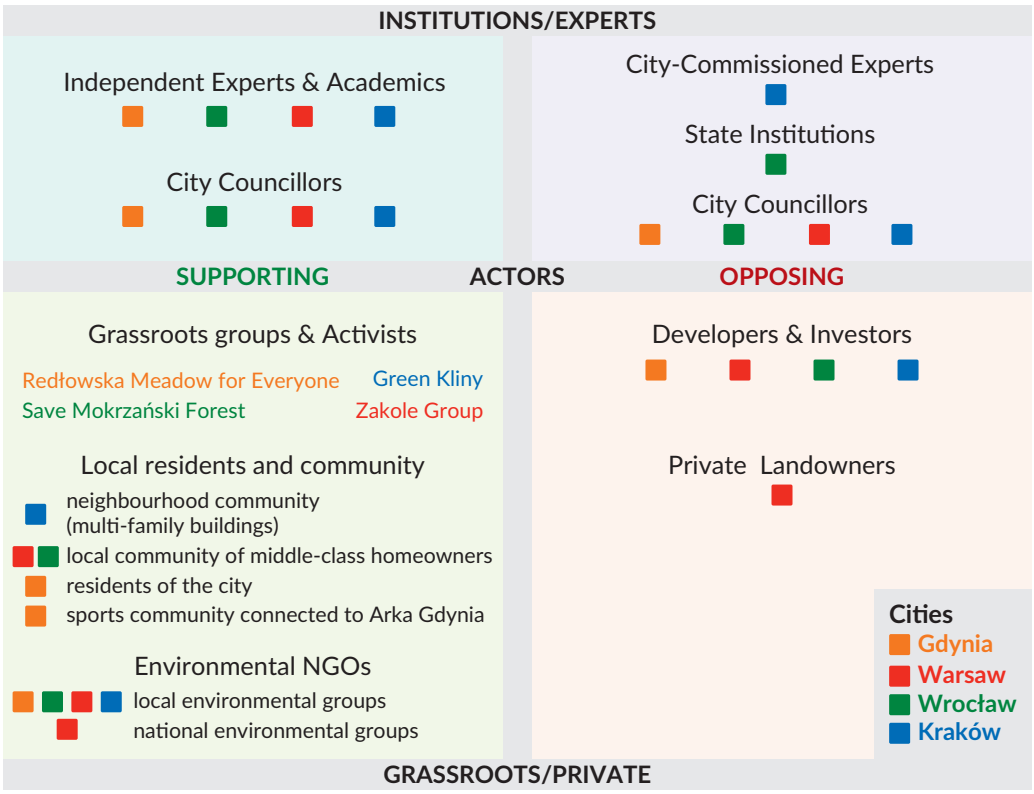

Figure 4. Actor constellations involved in the analysed conflicts.

4. Case studies and Results

4.1. How Do Grassroots Movements Challenge Planning and Governance Processes Concerning the Protection of Local Green Areas?

The four cases examined capture different types of UGAs and conflict settings, ranging from peri-urban meadows and forests to wetlands and river landscapes. Despite these differences, grassroots mobilisation usually emerged in response to the same problem: development pressure combined with limited everyday access to green space. Over the past two decades, local plans tended to favour new housing and commercial projects, while UGAs and social infrastructure were often left out or treated as secondary. As one activist put it: "The south of Wrocław is a concrete desert, factories, apartments, and no forest or larger park on that side" (R10). We have heard similar stories in Kraków, Warsaw, and the Tricity, where new districts keep growing. The situation is worsened by this attitude: "We've also encountered a reaction such as, well, these urban wetlands are obviously not as valuable as those outside the cities" (R5). This framing points to recognitional injustice: the systematic subordination of ecological and social values attributed to urban-fringe green areas to development-oriented priorities.

This way of thinking reinforces spatial inequalities as peripheral neighbourhoods are often sacrificed to development, while access to nature remains a privilege of older, better-planned parts of the city. In such conditions, residents often try to defend the remaining green spaces and secure their access to nature through social campaigns. Grassroots movements blend mobilisation activities (protests, petitions), educational and informational activities (educational walks, billboard campaigns, blogs, popular science

conferences, etc.), pro-environmental activities (cleaning up UGAs, conducting a nature inventory), along with creative and artistic tools (exhibitions, happenings, songs, podcasts). In addition, residents engage in legal activities and develop maps of areas which, in their view, should be legally protected.

One of the key strategies used in Wrocław involved a highly successful social billboard campaign, which resonated with great social support due to its bold and controversial messaging. The slogan designed to preserve the natural forest and meadow landscapes of Mokrzański included playful yet provocative sexual connotations, which brought attention to the cause. The Kliny Meadows case shows how these tools worked in practice. As the area was gradually opened to residential development, residents argued that the remaining meadows were not empty land waiting for investment, but one of the few accessible green spaces in this part of Kraków and a habitat for valuable species. Since the ecological value of the area was not sufficiently recognised in planning decisions, activists tried to produce and circulate their own evidence:

> It was us, the residents, who had to prove that the protected species found there [in the Kliny area] during the development of actual vegetation maps in 2008 were still there in 2016. Well, it was odd for us, but we had to do it to move forward with it [to get the attention of the authorities and the media]. (R3)

This reflects a recurrent pattern across the cases: The burden of producing technical evidence that authorities should have commissioned falls instead on residents, whose findings are then contested or ignored in formal procedures, which is an expression of procedural and recognitional injustice.

In addition to public engagement, the residents took part in formal consultations. Thus, the activists arguing for additional legal protection of Zakole, the Wawer Bend, in Warsaw emphasised that:

> We participated in the online consultations of the Green Warsaw programme, and at every opportunity we reminded the decision-makers about Zakole, since there is no point in creating blue-green infrastructure from scratch when we have a complex of wetlands that we just need to take care of. (R5)

These cases demonstrate that, with different efforts to mobilise the population accompanied by education and creative tools, the residents showed a deep commitment to the protection of threatened UGAs and to raising consciousness of their environmental importance.

4.2. What Factors Trigger Conflicts Over UGAs?

The study examined the extent to which the planning context and spatial conditions determine the development of a given area and whether they may have influenced the existing conflict (Table 1 and Figures 5–8).

Table 1. Structural factors underlying conflicts over UGAs in selected case studies.

Characteristic	Kliny Meadows (Kraków)	Mokrzański Forest (Wrocław)	Wawer Bend (Warsaw)	Redłowska Meadow (Gdynia)
Location within urban structure	South-western periphery	Western urban fringe	South-eastern periphery	Peripheral coastal zone
Relevance to suburban development	Internal suburbanisation treating UGAs as development reserves, generating green infrastructure deficits	Fragmented governance: The central forest authority manages the forest for timber production, ignoring the recreational needs of new suburbs	Mismatch between planning and fragmented land ownership, threatening degradation of natural buffer zones	Commercial pressures on public green space; market interests prevailing over residents' needs
Relationship to suburbanisation	Internal suburbanisation; intensive multi-family residential development on former green land	Urban fringe affected by rapidly expanding suburbs, mostly low-density housing	Urban fringe with intensive low-density residential expansion	Recreational and tourism-oriented urban fringe; interface between built-up area and nature reserve
Development pressure type	Multi-family residential and service development	Suburban residential expansion; commercial forestry	Dispersed single-family housing; land speculation	Tourism
Planning status	Development permitted under existing plans; environmental protection introduced partially and belatedly	Forest protected under planning documents; recreational infrastructure and buffer zones absent	Designated for green space and water retention; implementation constrained by fragmented private land ownership	Hotel designation reversed to public green space following resident pressure
Ownership structure	Predominantly private; development permits issued before protective measures adopted	Public (state treasury/state forests); centrally managed	Highly fragmented private ownership; prevents establishment of a public park	Municipal; facilitated commercialisation attempts
Ecological and recreational value	High biodiversity; recreational and climate-regulation functions	Natura 2000 forest complex; key recreational and ecological functions	Wetlands and peatlands; ecological connectivity, water retention, ecosystem services	High landscape value; adjacent nature reserve; city-wide recreational function

In the spatial development plans for the Kliny area in Kraków (Figure 5), land designated for multi-family housing and services predominates, while UGAs are limited and fragmented. Despite strong investment pressure, part of the area was granted environmental protection following campaigning by residents, although this only covered a reduced section of the site originally proposed. As a result, planning decisions reflect a negotiated compromise between development priorities and the protection of valuable natural

fragments, raising concerns about insufficient everyday access to green and recreational spaces for a rapidly growing population.

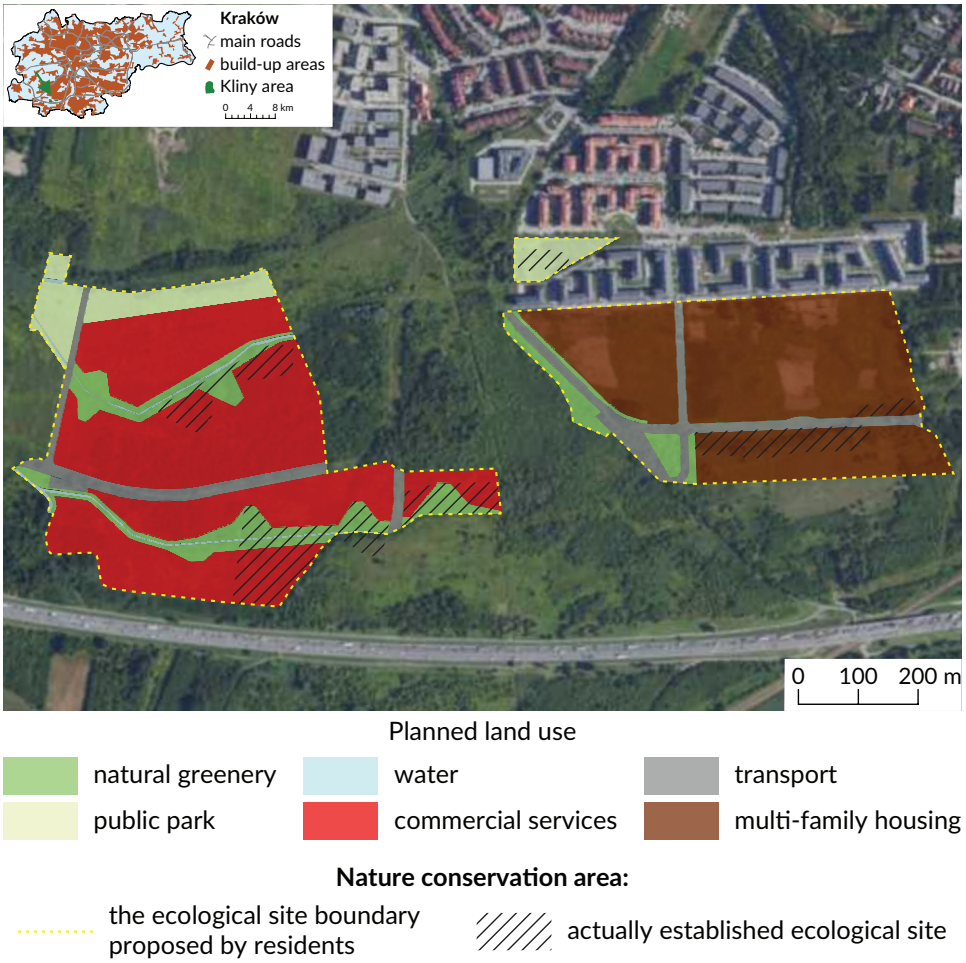

Figure 5. Planned land use in the Kliny area (Kraków). Source: Own appraisal based on the following local spatial development plans: "Kliny Południe," "Kliny Gadomskiego," and the Polish Central Register of Nature Conservation Formats.

In the Mokrzański Forest area in Wrocław (Figure 6), a large forest complex directly borders single-family housing, creating tensions between conservation and residential expansion. Although the forest remains accessible, the area lacks park and service infrastructure. Planning documents protect a substantial part of the forest, but conflicts focus on tree felling and the encroachment of development into adjacent areas.

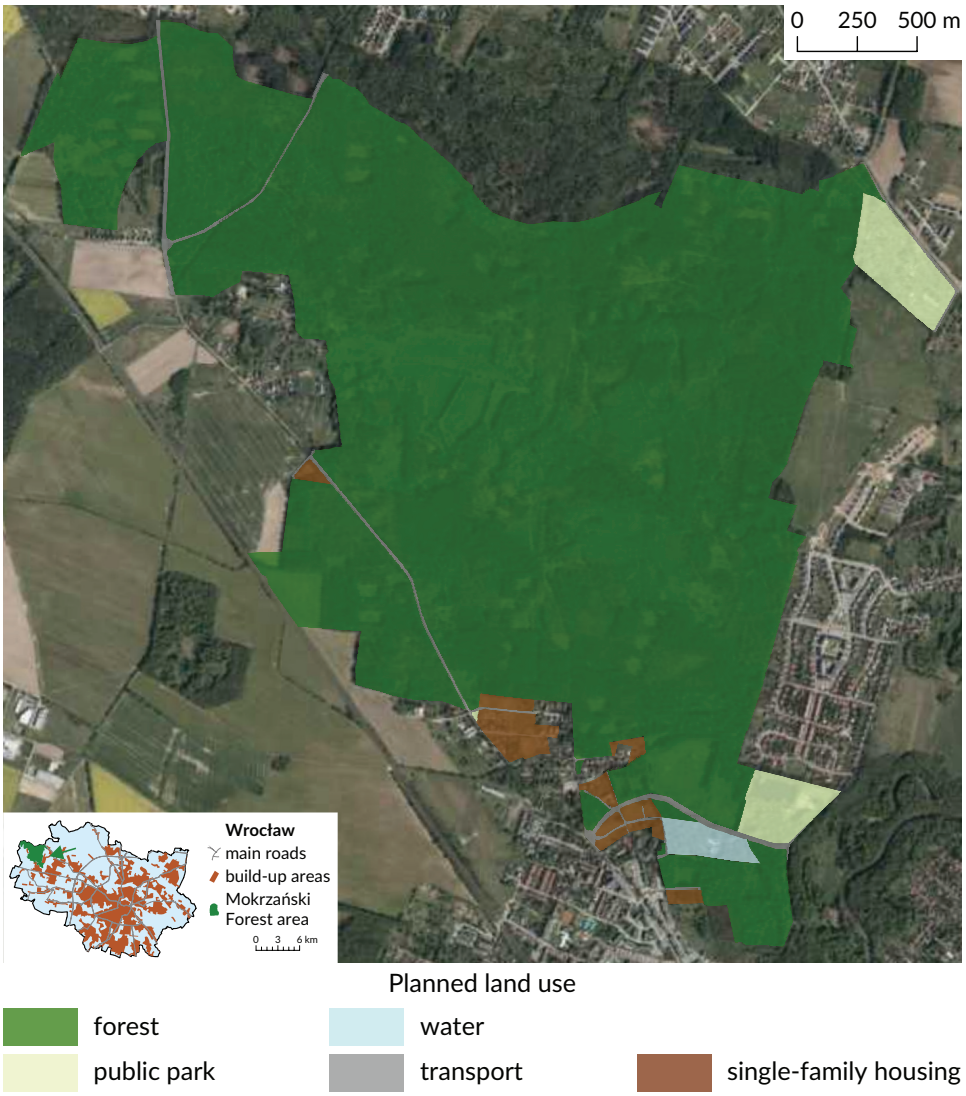

Figure 6. Planned land use in Mokrzański Forest (Wrocław). Source: Own appraisal based on the local spatial development plan "Części zespołu urbanistycznego Las Mokrzański we Wrocławiu."

In the Wawer Bend area in Warsaw (Figure 7), most land is designated as publicly accessible greenery, including a wetland area providing key ecosystem services. Despite its recreational and environmental importance, much of the protected land is privately owned, increasing development pressure. Conflicts arise between private owners and efforts to preserve the area and initiatives to open it for educational and recreational use.

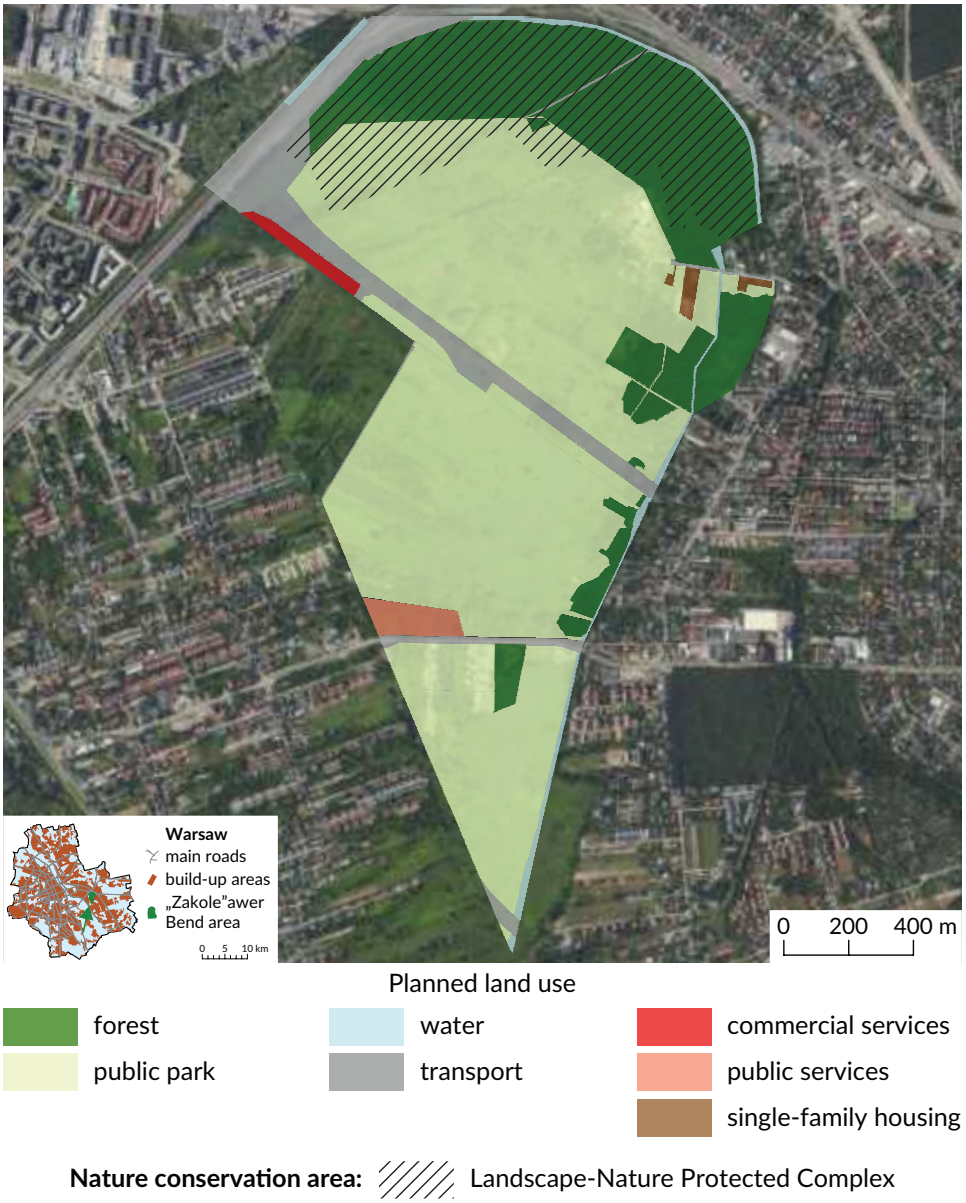

Figure 7. Planned land use in the "Zakole" area on the Wawer Bend (Warsaw). Source: Own appraisal based on the following local spatial development plans: "Zakole Wawerskie," "Kadetów," and the Polish Central Register of Nature Conservation Formats.

In the plans for Redłowska Meadow in Gdynia (Figure 8), a large complex of UGAs and forests is designated directly adjacent to dense single- and multi-family residential development and the shoreline of the Gulf of Gdańsk. The entire forest area is protected as a nature reserve, creating a clear interface between built-up and environmentally valuable land. This results in tensions between conservation requirements and investment pressure. Conflicts primarily concern development in the vicinity of the reserve, fragmentation of UGAs, and competing expectations regarding the use of protected spaces in relation to residents' needs.

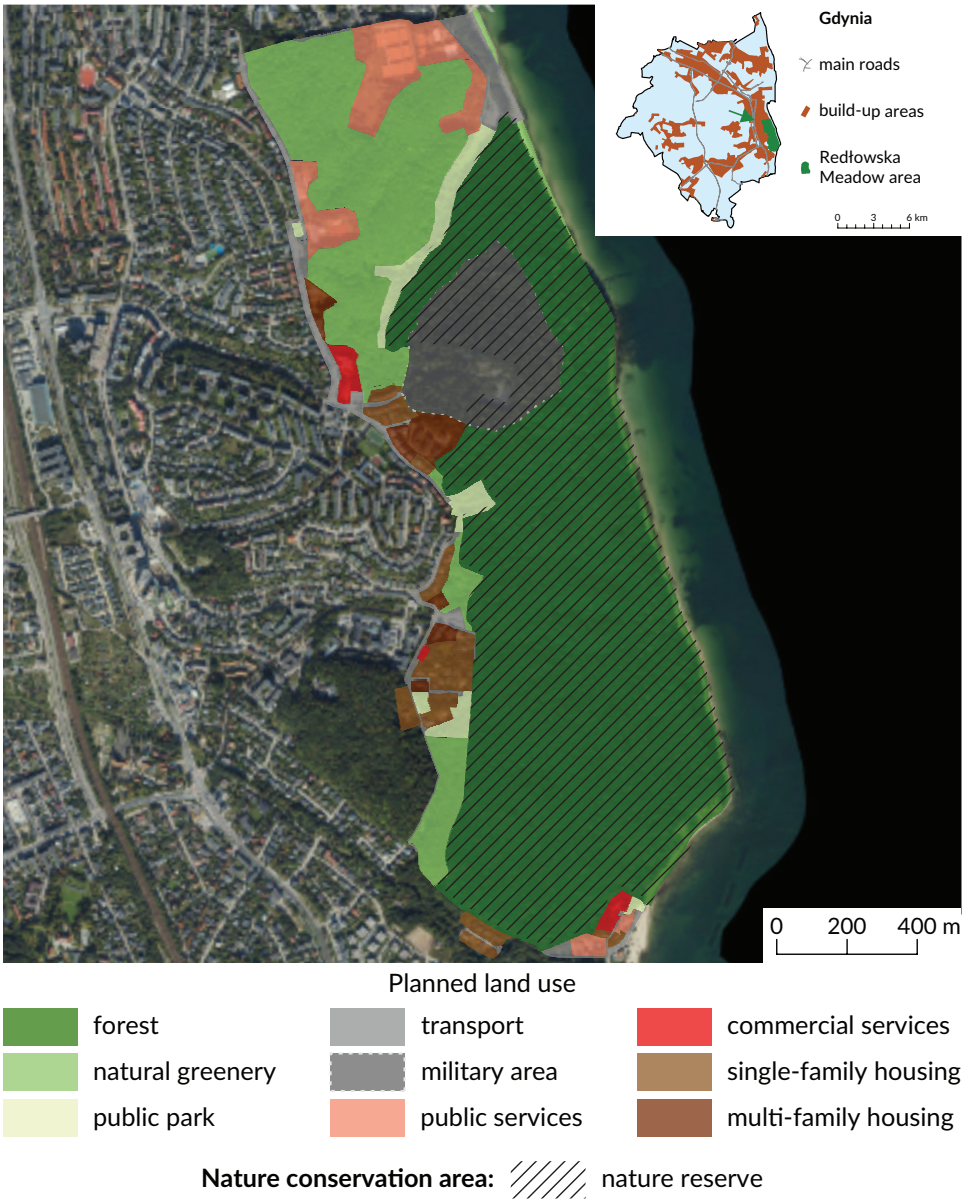

Figure 8. Planned land use in the Redłowska Meadow area (Gdynia). Source: Own appraisal based on the following local spatial development plans: "Rezerwat Kępa Redłowska" and the Polish Central Register of Nature Conservation Formats.

These four cases reflect the environmental and social consequences of internal suburbanisation, in which pressure to accommodate housing and commercial investment at the urban fringe has repeatedly collided with the imperative to protect ecologically valuable green land. Table 2 presents the three EJ dimensions evidenced in the cases, providing a comparative overview of the distributive, procedural, and recognitional injustices.

Table 2. EJ dimensions in selected case studies.

Case	Distributive injustice	Procedural injustice	Recognitional injustice	Empirical evidence	Planning outcome
Kliny Meadows (Kraków)	Potential loss of meadows, biodiversity, recreation, and climate-regulation functions through residential development	Residents perceived limited influence over planning and development decisions	Ecological and recreational values of the meadows were subordinated to development priorities	Residents self-funded a species survey to re-establish what city-commissioned maps had already documented in 2008; objections submitted during plan-making were not reflected in the adopted plan; a building permit was issued just before the local plan's adoption	Increased public visibility and political attention; partial nature protection (5.82 ha of the nearly 60 ha advocated by residents); conflict remains partly unresolved
Mokrzański Forest (Wrocław)	Threats to forest ecosystem services, recreation, and surrounding meadows from forestry and development pressures	Residents reported limited influence over forest management and planning decisions	Local ecological and social values attached to the forest were often subordinated to production-oriented and development-focused perspectives	Residents' standing to participate was formally questioned by forestry authorities; residents collectively self-funded a Natura 2000 habitat inventory that authorities should have commissioned	Forest management plan revised; logging reduced; efforts to protect surrounding meadows continue
Wawer Bend (Warsaw)	Threats to wetlands, biodiversity, and ecosystem services from urban development	Residents challenged planning processes perceived as favouring development interests	Wetlands were often treated as undeveloped land despite their ecological and social value	The city announced a future wetland park while internally acknowledging no concrete action was planned due to the private ownership problem	Increased recognition of wetland values; comprehensive protection remains unresolved due to fragmented ownership
Redłowska Meadow (Gdynia)	Potential loss of public green space and recreational benefits through hotel development	Residents perceived participation as insufficient and decisions as predetermined	Community values and place attachment were subordinated to development priorities	The city listed the site on its investment portal as a development asset, then denied this when challenged; resident survey findings were dismissed as politically motivated by the mayor; the decision was later reversed without acknowledging residents' role	Hotel project abandoned; green-space functions retained, though long-term protection remains uncertain

Content analysis of the interviews revealed that conflicts over green space management often stem from differing perceptions of the role that UGAs should play for local communities. The first and most significant aspect of the struggle for UGAs emerged directly from the concept of EJ. Activists emphasised that access to UGAs constitutes their right to the city. They also noted the weaknesses of institutions responsible for environmental protection and urban spatial policies:

> The right to a clean environment is a human right…the right to information is a human right….These are the municipality's own tasks, to take care of greenery. (R12)

> We knew that without some lobbying from residents, nature would not defend itself. (R2)

Respondents also observed that conflicts concerning green spaces have intensified in recent years, which both groups—activists and decision-makers—associate with a shift in the awareness of urban residents. According to the respondents, this change in awareness arises from a growing recognition of the value of UGAs following the pandemic and in the context of climate change.

The struggle for UGAs in Polish cities also stems from structural limitations of the spatial planning system. The lack of adequate protection in planning documents and prolonged procedures reduce their effectiveness, leading residents to perceive protest as more effective than formal participation:

> Sometimes it's not about the fact that collectively we have different worldviews…how we would see this greenery and nature in the city. Sometimes…planning in the city doesn't keep up with our change in awareness; we pass local plans, and then it turns out that even after a decade they are no longer relevant, and it is very difficult to change them. On the other hand, they are binding for us, and we have to make certain decisions based on what we have just passed. (R21)

Decision-makers frequently emphasised that all land-use changes were carried out in accordance with planning procedures and were subject to public consultation. Activists, however, pointed to the performative nature of these consultations, which often involved the city authorities pushing through pre-determined projects, reducing residents' input to minor details, and accepting actions that negatively affected the environment during project implementation (e.g., lack of environmental supervision during construction, excessive tree cutting and similar practices, token consultations):

> Once even he [the decision-maker] said at a public discussion: "If you want a park here, please buy this plot and make a park." This has already deprived us of any illusions that the city will cooperate with us. (R12)

A comparison of the four cases highlights both shared mechanisms and specific dynamics unique to each context. In all cases, consultations were conducted to satisfy formal planning requirements, while residents had little influence on project outcomes. Local communities frequently perceived participation as symbolic, since key decisions had often been made before the consultation process began.

The suburban and urban-fringe position of all four cases intensifies these systemic weaknesses in specific ways. Peripheral UGAs sit where planning coverage is thin, ecological designations are least consolidated,

and development pressure is high. Communities in these locations typically have fewer alternative green spaces to fall back on, which raises the distributive stakes of each conflict, while the relative political invisibility of urban-fringe neighbourhoods reduces the institutional responsiveness that more central or higher-profile areas might command.

The procedural impasse at Wawer Bend, however, has a different structural character: It is not primarily the unwillingness of authorities to engage but the fragmented private ownership of the wetland that prevents planning from delivering protective outcomes: a governance problem that procedural reform alone cannot address. Redłowska stands apart as the only case in which sustained activist pressure produced a clear reversal of a municipal decision, though the absence of formal acknowledgement of residents' role suggests that the recognitional dimension of the conflict remains unresolved even where the distributive outcome was secured.

In response to these pressures, residents often seek to strengthen protection through environmental conservation instruments, particularly where planning regulations are perceived as insufficient to prevent development. The establishment of an ecological site designation in Kliny and efforts to protect Wawer Bend through a landscape-nature complex illustrate how conservation measures can become important tools for safeguarding UGAs against residential development. The result is that general procedural failures produce disproportionate consequences in suburban contexts, encouraging communities to pursue alternative forms of protection outside the conventional planning system.

4.3. How Do Activists and Decision-Makers Differ in Their Views on the Management and Protection of UGAs?

Divergent visions for the management and development of UGAs often arise from differing conceptions of urban policy. One of the challenges most frequently identified by policymakers concerns the need to reconcile the interests of multiple stakeholder groups, including residents and investors, within the planning process. Conversely, activists have drawn attention to excessive urbanisation of green areas and to the prevailing perception among city residents that municipal authorities tend to be more responsive to the voices of investors and developers than to those of the inhabitants. This perception is further reinforced by high real estate prices and the limited availability of new park and recreational areas: "Unfortunately, it is still a city where developers rule, at least that is how it looks from the perspective of an ordinary resident" (R10).

An illustrative example is the Redłowska Meadow in Gdynia, where mobilisation extended beyond typical protest activities and involved a broad coalition of local residents, activists, and informal groups. The campaign combined public events and symbolic actions, including expressions of long-term commitment, such as tattoos in the case of the meadow. For many participants, the area was not only valued for its ecological and landscape qualities but also functioned as an important everyday and identity-forming space. This contrasted with planning discussions that continued to frame the site primarily in terms of its development potential.

A major dividing line between the two groups relates to the financial dimension of the creation and management of new UGAs. Decision-makers primarily emphasised the need to forgo municipal revenue and to allocate public funds for the development of green areas. The designation of such areas was thus perceived mainly as an expense rather than as a resource or a form of socially responsible investment.

Activists, in turn, argued that in times of climate crisis, it would be advisable to expand green spaces through minimal intervention in existing vegetation to reduce excessive expenditure. Their criticism also frequently addressed the allocation of substantial financial resources to the maintenance of recreational greenery at the expense of the natural values that tend to be lost through such investment projects:

> This protection does not have to be expensive at all, quite the opposite, and we try to show this to the city in these conversations, that often the things they do in these forests, building concrete paths there…and protection in fact is often very low-cost, at least such passive protection….We often simply ask for no action at all, and no further funding. (R11)

Policymakers also stress the importance of long-term thinking in urban planning, noting that activists and residents sometimes overlook the fact that municipal investments require foresight and advanced planning. Both groups also highlighted that during the 2000s, metropolitan cities experienced an intense phase of urban development, during which insufficient areas were reserved for green spaces.

Despite their divergent perspectives, the relationship between the two groups is marked by both tension and mutual dependence. Activists are sometimes perceived as politically engaged people, haters of the particular political arrangement in the city, or romantics with an unrealistic view of city management, while policymakers and officials are accused of bad intentions, favouring developers, or lacking genuine environmental commitment. On the other hand, both sides acknowledge the necessity of cooperation. Activists observe that once local politicians become involved in the protection of particular UGAs, it becomes significantly easier to ensure their comprehensive preservation. Policymakers likewise emphasised that when it is necessary to reconcile the interests of various stakeholders, the protection of specific green spaces is facilitated if activists engage in campaigns aimed at safeguarding those areas.

5. Discussion

This study contributes to debates on urban conflicts by demonstrating how geographical location shapes the emergence of environmental conflicts in post-socialist cities. Development pressures associated with suburbanisation and urban expansion increasingly target UGAs valued by local communities, while fragmented and reactive planning systems fail to provide effective protection (Lorens, 2005; Nowak et al., 2022). The findings reveal a persistent mismatch between planning objectives and outcomes, particularly in Polish urban-fringe areas where development pressures are strongest. Consistent with Healey (2007), conflicts over UGAs emerge where development-oriented land-use priorities collide with residents' environmental, recreational, and place-based values.

Beyond opposing specific development projects, grassroots movements challenged existing governance arrangements by producing ecological knowledge, mobilising local communities, participating in consultations, and advocating for additional conservation measures. In line with previous research, these initiatives extended beyond protest and resistance, acting as important producers of environmental knowledge and introducing alternative perspectives into planning and decision-making processes (Anguelovski, 2015; Hess & Satcher, 2019; Oscilowicz et al., 2025).

A persistent source of conflict is recognitional: Activists and authorities differ not only in tactics but in how they value UGAs and perceive participation. Activists' preference for low-intervention approaches sits in direct tension with authorities' tendency to favour extensive, costly projects. This divergence is not merely technical but reflects competing understandings of what urban nature is and who has the right to define it.

The EJ framework reveals three interconnected dimensions of injustice across the four cases. Procedural injustice appears where residents describe participation as late, selective, or merely formal, reflecting broader critiques of tokenistic participation in planning. Recognitional injustice becomes visible when natural ecosystems such as wetlands, meadows, or forest-edge zones are treated as less valuable than designed greenery, or when community ecological knowledge and local assessments are dismissed or treated as secondary in formal procedures. Distributive injustice is evident in the peripheral and urban-fringe districts examined, where residents face limited everyday access to green spaces and where the consequences of planning failures are spatially concentrated.

These patterns align with earlier EJ work that emphasises distributive, procedural, and recognitional dimensions (Low, 2013; Schlosberg, 2009; Walker, 2012). However, our findings complicate the assumption that EJ falls primarily along lines of socio-economic marginalisation. The activist coalitions documented here share spatial marginalisation: location in peripheral zones where development pressure is structurally high. This suggests that procedural and recognitional injustice are not exclusively a function of social position but can be produced by the spatial configuration of planning systems: a distinction that post-socialist suburban contexts make particularly visible, and one that challenges EJ scholarship to attend to geography as an independent axis of marginalisation alongside class.

This argument extends recent post-socialist EJ work demonstrating that justice concerns in CEE often stem from institutional capacity and governance deficits rather than discrete policy conflicts (Kronenberg et al., 2020; Onose et al., 2023; Sechi et al., 2022). Our findings further suggest that these deficits acquire a distinct spatial dimension in the context of internal suburbanisation, affecting residents of peripheral communities with limited access to UGAs.

As our cases show, grassroots initiatives play a crucial role in strengthening environmental protection and sustaining public attention around threatened UGAs (see also A. Haase et al., 2022; Hess & Satcher, 2019). Activist engagement improved distributive outcomes to varying degrees: Green space was retained or partially protected. However, procedural and recognitional justice remained structurally compromised even where distributive outcomes were secured. Residents won the argument about whether a site mattered; they did not win recognition as legitimate co-producers of planning knowledge, nor were they integrated into governance processes in any durable way. Measuring the success of grassroots activism primarily through distributive outcomes may therefore underestimate the degree to which the underlying injustices remain unresolved. A fuller account of what activism achieves requires attending to all EJ dimensions, not only the most visible one.

The relationship between activists and authorities, however, is not one of straightforward opposition: Both sides acknowledge the practical necessity of cooperation. Our research shows that grassroots activism emerges as a response to procedural shortcomings in urban governance, mobilising communities and generating protective actions in situations where formal planning mechanisms fail to respond quickly

enough to development pressures affecting valuable UGAs. This reflects broader concerns about procedural justice and meaningful participation in environmental decision-making (Schlosberg, 2009; Walker, 2012). The findings suggest that conflicts over UGAs in post-socialist cities should be understood not only as disputes over land use, but also as spatially situated struggles over recognition, participation, and the right to shape urban nature.

6. Conclusion

This study demonstrates that conflicts reflect fundamentally different understandings of UGAs, particularly pronounced in suburban and peripheral contexts, where limited everyday access to nature intensifies local mobilisation. At its core, this is a recognitional conflict: Residents tend to perceive UGAs as shared community and ecological spaces, while decision-makers often frame them as land for development or infrastructure.

The findings show that these conflicts are shaped by the interaction of spatial, institutional, social, and economic factors, which together generate persistent pressures on UGAs. Rapid development at the urban fringe, weak environmental oversight, top-down decision-making, and merely symbolic participation formats undermine trust and limit real dialogue. Growing environmental awareness and the increasing recognition of the value of accessible green space have made residents more alert to decisions that affect their immediate surroundings. Conversely, the study highlights that collaborative engagement between residents, experts, public officials, NGOs, and media actors can transform conflict into an opportunity for more sustainable urban policy.

The policy implications of this study extend beyond technical fixes and point to several needs: Local spatial plans should explicitly protect ecologically valuable urban-fringe green land rather than leaving it exposed to ad hoc development decisions; participation should move beyond formal consultation toward early, predictable and meaningful engagement; cities should treat green infrastructure as an interconnected system and take seriously low-intervention approaches that deliver substantial ecosystem services; and planning processes should recognise community ecological knowledge as a legitimate input rather than treating it as a challenge to administrative authority.

The study shows that the fight for UGAs in Polish cities is not only about saving particular sites. It reflects broader debates about the future direction of urban development, how environmental benefits are shared, and how local communities can influence the places where they live.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request, provided that access complies with the participants' consent and institutional data protection regulations.

LLMs Disclosure

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