The Suburban Label Gap: Triangulating Place-Of-Residence Labels with CORINE Land Cover Exposure in Poland

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Abstract. Monitoring urban sprawl and land artificialisation is typically grounded in land-cover indicators and administrative boundaries, yet suburbanisation is also mediated by how residents label and communicate their living environment. This paper proposes a parsimonious perception-environment triangulation that combines (i) CORINE Land Cover (CLC 2018) exposure at geocoded respondent postal codes, (ii) self-reported settlement-size context, and (iii) self-declared place-of-living labels and residential preferences from a national Polish survey (N = 1,480; 2020). The land-cover baseline places 66.7% of respondents in artificial surfaces, with 59.7% located specifically in discontinuous urban fabric, highlighting the prevalence of fragmented built-up forms captured by CLC. Despite this monitoring signal, only 2.1% describe their current residence as 'suburbs of a large city', while 12.9% select suburban options as their preferred location. Settlement size and place labels are strongly associated (Cramer's V = 0.608), yet systematic relabelling across categories suggests that 'suburbs' operates as an interpretive boundary rather than a stable territorial descriptor. This mismatch is conceptualised as a suburban label gap: the weak uptake of 'suburbs' as a current self-description despite the prevalence of discontinuous built-up land-cover contexts. The gap matters for planning because land-cover and land-take indicators may lose communicative clarity when translated into socially ambiguous place labels. More broadly, the findings show that suburbanisation cannot be inferred from any single classification system and point to the need to complement land-cover and settlement-hierarchy indicators with perception-sensitive, function-oriented measures such as accessibility, congestion and service capacity.

Keywords: Suburbanisation · Urban Sprawl · Land Take · CORINE Land Cover · Discontinuous Urban Fabric · Residential Self-Identification · Place Labels · Poland

1 Introduction

Monitoring dispersed development and land artificialisation increasingly relies on land-cover datasets and indicator families that translate remotely sensed surfaces into categories such as "artificial", "urban" or "discontinuous urban fabric". Yet even when these

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categories are technically robust, their interpretation still depends on how settlement types are understood in social and policy practice. Land-cover classes are distinct from lived categories such as "city", "village" or "suburbs", which people use to describe where they live, what services they expect and what they consider "urban". The result is a recurring interpretive gap: land-cover monitoring can detect spatial patterns associated with dispersed settlement, while residents may label (or refuse to label) the same environments in ways that do not align with administrative or morphological proxies.

This gap is particularly relevant to suburbanisation because "suburbs" are not merely physical forms or administrative zones, but multidimensional constructs shaped by morphology, functional relations and social identity. Suburban areas often extend beyond municipal boundaries, and their degree of functional integration with urban cores varies across contexts, making the concept difficult to operationalise through any single criterion. At the same time, place labels are not neutral descriptors. Research on boundaries and place definition has shown both that borders are porous and imprecise [1] and that "place" may be meaningfully defined through user naming rather than solely through official categories [2]. In other words, the suburban condition may be identified through land-cover patterns and functional linkages, but it may also be accepted, rejected or reinterpreted through everyday language and identity.

A growing strand of work therefore argues that self-declared categories should not be treated as straightforward spatial measurements. Rather, they function at least in part as statements of identity: residents may live in environments that are objectively integrated into urban systems yet still describe their place as "village-like", "in-between" or simply "not urban" in order to preserve social status, lifestyle aspirations or local belonging [3]. From the perspective of land artificialisation policy and resilience-oriented spatial governance, this matters because policy communication and policy acceptance depend on socially meaningful categories. Where shared names are missing or contested, places can become "invisible" to public debate and therefore hard to govern [4].

This paper develops and demonstrates a parsimonious perception–environment triangulation that complements land-cover evidence with social categorisation. The analysis is motivated by a simple but consequential observation: in a national survey, the label "suburbs of a large city" appears only rarely in respondents' current self-descriptions (c. 2%), even though suburban options become more salient when they are asked about their preferred residential location. This asymmetry suggests that "suburbs" functions not only as a spatial descriptor but also as a socially negotiated category whose uptake depends on context and framing, with implications for how land-take signals are communicated and understood [4]. The paper therefore asks: to what extent do self-declared categories align with settlement-size categories and land-cover exposure, and what do any mismatches imply for the interpretation of land artificialisation signals and for planning communication?

The analysis triangulates three complementary layers of evidence derived from a single national dataset: (i) land-cover context, measured through CORINE Land Cover exposure at geocoded respondent locations; (ii) a settlement-size classification ranging from villages to cities with more than 500,000 inhabitants; and (iii) self-declared place-of-living labels, including an explicit "suburbs" option.

Against this background, the following research questions are posed. The next section then describes the dataset and operational steps used to answer them.

RQ1. Label Gap: How frequently do residents adopt the label "suburbs" in their current self-descriptions, and how does this compare with the salience of "suburbs" in their stated residential preferences?

RQ2. Mismatch Structure: How do self-declared place-of-living categories relate to settlement-size categories, and where do systematic divergences reveal the limits of size-based classifications for describing suburbanisation-like contexts?

RQ3. Policy Meaning: Which functional concerns do respondents associate with moves to suburban and rural locations, and can these concerns provide a more socially legible planning vocabulary than the contested label "suburbs".

The contribution is both conceptual and applied. Conceptually, we frame the "suburban label gap" as one instance of a broader mismatch among administrative, functional, objective, and subjective urban classifications, showing that categories central to land-take debates may be only weakly adopted as self-descriptors even when monitoring signals and settlement context point to suburbanisation-like patterns. In practical terms, we propose a low-burden translation step that links land-cover monitoring outputs to the categories residents use to name and classify their environments. Rather than replacing established land-cover indicators, this approach makes their interpretation more socially legible, especially in contexts where "suburbs" lack operationalised survey criteria and where suburban residents can be distinguished only through the labels they choose. CLC is used here as a monitoring-oriented proxy for built-form context; its role is not to validate individual self-identification, but to make explicit where land-cover signals of dispersed development fail to translate into everyday place labels. The results show how rarely the label "suburbs" is adopted, how strongly place labels co-vary with settlement size, and how mismatches between land-cover context, settlement hierarchy and self-declared labels reveal the limits of relying on any single classification system.

2 Data and Methods

2.1 Study Design

The paper adopts a triangulation design that combines a physical-environment proxy with survey-based social categorisation. The central idea is that suburbanisation and dispersed development are simultaneously reflected in (i) land-cover context, (ii) settlement hierarchy, and (iii) everyday place labels. Rather than treating any single layer as definitive, the analysis compares their alignment and divergence to identify where widely used planning concepts (e.g., "suburbs") operate as stable descriptors and where they function as contested or weakly adopted labels.

2.2 Data Sources

This study combines a land-cover description of respondents' residential context using CORINE Land Cover (CLC) and self-reported residential context from a national online questionnaire survey.

The physical environment context is characterised using the CLC 2018 dataset, the most recent full CLC inventory available for Poland at the time of analysis, produced within the Copernicus Land Monitoring Service and implemented nationally in Poland by the Chief Inspectorate of Environmental Protection (GIOŚ) [5]. CLC provides a harmonised, pan-European land-cover inventory with a three-level hierarchical nomenclature and 44 Level-3 classes. At the detailed level, it differentiates land-cover types such as continuous and discontinuous urban fabric (111, 112), industrial and commercial units (121), transport infrastructure (122), non-irrigated arable land (211), pastures (231), and forest classes including deciduous (311), coniferous (312), and mixed forests (313). Poland applies the standard CLC nomenclature without national modifications, ensuring comparability across European countries [6, 7]. The dataset is designed for regional and national-scale analysis, and its minimum mapping unit of 25 ha implies spatial generalisation that can limit the detection of small or fragmented features, including dispersed settlements [8]. In this study, CLC 2018 is used to derive a contextual land-cover profile of respondent locations by linking geocoded survey points to CLC polygons and summarising their distribution across land-cover classes.

The survey component draws on a national online questionnaire survey conducted in Poland in 2020. Data were collected from a panel sample of working-age adults aged 18–64 with quota controls applied to ensure comparability with the national population structure by age, gender, education and region. In the Polish context, the regional quota refers to voivodeships, the country's first-level administrative regions. The questionnaire covered respondents' housing situation, as well as residential preferences and perceptions related to the living environment.

2.3 Conceptual Framework

To avoid conflating "objective" and "subjective" measures, the residential environment is analysed through three complementary layers:

Physical Environment (Land-cover Context). Land-cover classes derived from CLC, summarised as counts of geocoded residential postal-code locations in each land-cover class (e.g., continuous and discontinuous urban fabric, agricultural classes, forests, water).

Settlement Context (Quasi-objective Proxy). Settlement size category (number of inhabitants), measured through a survey item where respondents select the size band of their current settlement (village → cities above 500,000 inhabitants). Although self-reported in the survey, this measure reflects an administrative/demographic property and is treated as a contextual proxy rather than a perception.

Perceived Label (Social Categorisation). Self-declared place-of-living type, measured by the survey item "Is the place where you live…?" with categories including "suburbs of a large city." This variable is treated as a perception (label) measure rather than a physical description.

2.4 Operationalisation

Survey Measures. The survey is used to capture social categorisation of residential context and its relationship to settlement hierarchy and built form. Two measures are

central and intentionally independent: (i) settlement-size context (population-size bands) and (ii) self-declared place-of-living label (including "suburbs"). Residential preference is used to assess whether "suburbs" is more salient under an aspirational framing than as a present-tense self-label. Finally, a multiple-response item on perceived negative effects provides an "impact layer" linking categorisation patterns to socially legible consequences (mobility, service capacity, social participation) relevant to planning.

2.5 CORINE Land Cover Exposure Profile

Land-Cover Context and Geospatial Processing. To represent the physical environment, respondent postal codes were geocoded to point locations and linked to CLC polygons. The land-cover component is used to construct a land-cover exposure profile: the distribution of respondent locations across land-cover classes. This profile is interpreted as contextual physical environment information that complements survey-based categorisation. It provides a monitoring-oriented "what kind of land-cover context dominates where respondents live" backdrop for interpreting the social categorisation results.

The workflow follows a standard point-in-polygon summarisation procedure:

- postal codes → geocoded point layer (excluding geocoding failures),
- point-in-polygon overlay with CLC polygons,
- class-wise counting of points,
- aggregation of counts (and percentages) at the land-cover class level.

Figure 1 maps the geocoded respondent locations against the CLC layer to provide spatial context.

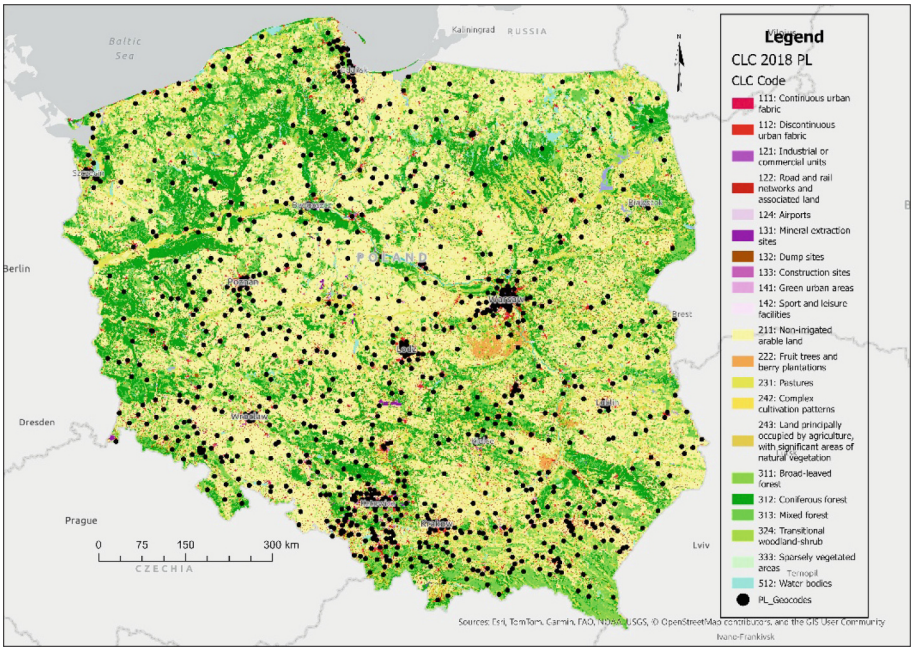

Fig. 1. Spatial distribution of respondent locations overlaid on land-cover classes (CORINE Land Cover 2018).

2.6 Analytical Approach

The analysis proceeds in three integrated steps, aligned with the research questions.

First, it reports the distributions of settlement-size categories, self-declared place labels, and key land-cover classes from the exposure profile. This establishes the empirical starting point for discussing category prevalence and land-cover context.

Second, we evaluate how self-declared place labels relate to settlement-size categories using contingency analysis (cross-classification of categorical variables) and report the strength of association using Pearson's chi-square test and Cramer's V. This step captures both the overall structure (how strongly labels and settlement context co-vary) and the substantive mismatches (where they diverge in systematic ways).

Finally, we summarise perceived negative effects as a ranked "impact layer" that connects category patterns to planning-relevant consequences.

A key interpretive concept is the "suburban label gap"—the discrepancy between land-cover exposure patterns consistent with discontinuous built environments and the low frequency of respondents selecting "suburbs" as a current self-descriptor—considered alongside the stronger presence of suburban options in stated residential preferences.

3 Results

The results are presented in the order of the triangulation framework, beginning with the monitoring-oriented land-cover baseline. Geocoded respondent locations fall predominantly within artificial surfaces (66.7%), driven mainly by discontinuous urban fabric (CLC 112; 59.7%), while a substantial share is located in agricultural classes (26.9%), especially non-irrigated arable land (CLC 211; 16.9%) (Table 1). Urban fabric classes (CLC 111–112) together account for 61.4% of all geocoded locations; within this subset, discontinuous urban fabric dominates (97.1% of CLC 111–112), indicating that the built-up environments represented in the sample are captured primarily by the generalised 'discontinuous' class rather than by continuous urban fabric.

This exposure profile provides a monitoring-based picture of the physical context in which respondents are situated: built-up locations classified as discontinuous at CLC scale and embedded within wider agricultural landscapes. Given the national-scale generalisation of CLC, with a minimum mapping unit of 25 ha, locations falling in agricultural classes should be interpreted as indicators of contextual land-cover exposure rather than of parcel-level land use. Importantly, CLC 112 is not equivalent to 'suburbs of a large city', but denotes a land-cover category spanning a broad continuum of fragmented built-up forms. The following survey results therefore examine how respondents classify their residential context through settlement-size categories and everyday place labels, and where these classifications align with or diverge from the monitoring baseline.

Table 1. Distribution of geocoded respondent locations across CORINE Land Cover classes (counts and shares).

CLC code	CLC class	Area (ha)*	Respondent locations (n)	Respondent share (%)
111	Continuous urban fabric	4,079.5	26	1.8
112	Discontinuous urban fabric	321,504.2	883	59.7
121	Industrial or commercial units	7,617.3	45	3.0
122	Road and rail networks and associated land	82.0	2	0.1
124	Airports	318.5	2	0.1
131	Mineral extraction sites	58.3	3	0.2
132	Dump sites	317.8	1	0.1
133	Construction sites	111.9	1	0.1
141	Green urban areas	337.7	11	0.7
142	Sport and leisure facilities	437.6	13	0.9
211	Non-irrigated arable land	4,534,895.7	250	16.9
222	Fruit trees and berry plantations	679.2	2	0.1
231	Pastures	38,072.3	56	3.8
242	Complex cultivation patterns	5,156.8	61	4.1
243	Land principally occupied by agriculture, with significant areas of natural vegetation	2,906.4	29	2.0
311	Broad-leaved forest	6,156.8	17	1.1
312	Coniferous forest	663,976.5	38	2.6
313	Mixed forest	6,270.0	26	1.8
324	Transitional woodland-shrub	4,591.0	9	0.6
333	Sparsely vegetated areas	50.4	1	0.1
512	Water bodies	1,081.9	4	0.3
	Total	**5,598,701.8**	**1,480**	**100.0**

Table 2 reports the distribution of settlement-size categories, which are often used as proxies for 'urbanity'.

Table 2. Distribution of respondents by settlement size.

Category	n	%
Village	594	39.6
Town/city up to 20,000	195	13.0
Town/city 20,000-49,999	166	11.1
Town/city 50,000-99,999	122	8.1
City 100,000-199,999	122	8.1
City 200,000-499,999	121	8.1
City over 500,000	180	12.0
Total	**1500**	**100.0**

Note. Question: 'What is the size of the locality in which you live?' n = observed frequency; % = percentage of all respondents; $N = 1{,}500$.

The sample covers the full settlement hierarchy and closely reflects the national settlement-size distribution (rural c. 40.5%; cities under 20,000 c. 13%; 20,000–100,000 c. 18.7%; over 100,000 c. 27.8% [9]), enabling a robust assessment of how settlement size relates to self-labelling. Read alongside the CLC exposure baseline, settlement size functions as a quasi-objective proxy for settlement hierarchy: it is self-reported, but it refers to a demographic classification and should not be treated as a direct synonym for land-cover class or functional metropolitan position.

Table 3. Self-declared place-of-living categories.

Category	n	%
Open rural area	96	6.4
Village or small town	662	44.1
Medium-sized city	359	23.9
Large city	351	23.4
Suburbs of a large city	32	2.1
Total	**1500**	**100.0**

Note. Question: 'Is the place where you live …?' n = observed frequency; % = percentage of all respondents; $N = 1{,}500$.

The next step therefore introduces the core label variable, which captures how respondents describe their residential environment in everyday terms, including whether they adopt the socially specific category 'suburbs of a large city' (Table 3). Because this wording narrows the concept of suburbs to large metropolitan centres, the low proportion selecting this option should be interpreted as limited uptake of this label. In light of the prominence of suburbanisation in planning debates, the limited uptake of the label

'suburbs of a large city' in current self-description is consistent with a suburban label gap. This interpretation is reinforced by the preference question, in which suburban options are selected more frequently than in current self-identification. When juxtaposed with the CLC exposure profile dominated by discontinuous urban fabric (CLC 112), the low uptake of the label 'suburbs of a large city' reveals a translation gap between monitoring-oriented land-cover categories and everyday place labelling.

The relationship between settlement-size context and self-declared place labels is then examined using an association analysis of categorical variables (Table 4), while Fig. 2 illustrates the compositional patterns across settlement-size groups.

As expected, settlement-size category and self-declared place-of-living type are strongly associated (Pearson χ^2 (24, N = 1500) = 2219.476, p < .001; Cramer's V = 0.608), indicating that perceived labels broadly track settlement context. At the same time, the "suburbs of a large city" label remains rare in self-description. This supports the interpretation that "suburbs" function as a socially ambiguous category rather than a straightforward territorial descriptor. The label is concentrated in the largest settlements: 11.1% of respondents in cities with 500,000 or more inhabitants select this label, while smaller but non-zero shares also appear in cities of 200,000–499,999 inhabitants (3.3%) and even in villages and small towns ($\leq$1%). At the same time, substantial relabelling occurs across the smaller-town categories; for example, 28.7% of respondents from towns with up to 20,000 inhabitants describe their place of residence as a 'medium-sized city'. This pattern supports treating labels such as 'suburbs' and 'city' primarily as social identifications rather than purely morphological categories.

Read column-wise, the label 'suburbs of a large city' is concentrated in the largest settlement-size categories, but is not confined to them. Since settlement-size category is not equivalent to functional metropolitan location, the presence of this label in villages and small towns should not be read as contradictory. Rather, it suggests that suburban self-identification may extend across settlement forms located within broader metropolitan contexts. The adjusted residuals support this reading: respondents in cities with more than 500,000 inhabitants are markedly overrepresented among those selecting the suburban label (adjusted residual = 8.9), whereas villages are significantly underrepresented (-3.2). By contrast, the residual for cities of 200,000–499,999 remains modest (0.9), indicating that the strongest concentration is in the largest settlement category.

Table 4. Relationship between settlement-size categories (rows) and self-declared place-of-living labels (columns).

Size category	Statistic	Open rural	Village / small town	Medium city	Large city	Suburbs (large city)	Total
Village	Count	94	496	0	0	4	594
	Expected	38.0	262.2	142.2	139.0	12.7	594.0
	Row %	15.8%	83.5%	0.0%	0.0%	0.7%	100.0%
	Col %	97.9%	74.9%	0.0%	0.0%	12.5%	39.6%
	Adj. resid.	12.1	24.9	-17.6	-17.3	-3.2	
≤20K	Count	2	132	56	3	2	195
	Expected	12.5	86.1	46.7	45.6	4.2	195.0
	Row %	1.0%	67.7%	28.7%	1.5%	1.0%	100.0%
	Col %	2.1%	19.9%	15.6%	0.9%	6.3%	13.0%
	Adj. resid.	-3.3	7.1	1.7	-7.7	-1.1	
20K-50K	Count	0	34	127	3	2	166
	Expected	10.6	73.3	39.7	38.8	3.5	166.0
	Row %	0.0%	20.5%	76.5%	1.8%	1.2%	100.0%
	Col %	0.0%	5.1%	35.4%	0.9%	6.3%	11.1%
	Adj. resid.	-3.6	-6.5	16.8	-7.0	-0.9	
50K-100K	Count	0	0	105	17	0	122
	Expected	7.8	53.8	29.2	28.5	2.6	122.0
	Row %	0.0%	0.0%	86.1%	13.9%	0.0%	100.0%
	Col %	0.0%	0.0%	29.2%	4.8%	0.0%	8.1%
	Adj. resid.	-3.0	-10.2	16.8	-2.6	-1.7	
100K-200K	Count	0	0	71	51	0	122
	Expected	7.8	53.8	29.2	28.5	2.6	122.0
	Row %	0.0%	0.0%	58.2%	41.8%	0.0%	100.0%
	Col %	0.0%	0.0%	19.8%	14.5%	0.0%	8.1%
	Adj. resid.	-3.0	-10.2	9.3	5.0	-1.7	
200K-500K	Count	0	0	0	117	4	121
	Expected	7.7	53.4	29.0	28.3	2.6	121.0
	Row %	0.0%	0.0%	0.0%	96.7%	3.3%	100.0%
	Col %	0.0%	0.0%	0.0%	33.3%	12.5%	8.1%
	Adj. resid.	-3.0	-10.2	-6.4	19.9	0.9	
>500K	Count	0	0	0	160	20	180
	Expected	11.5	79.4	43.1	42.1	3.8	180.0
	Row %	0.0%	0.0%	0.0%	88.9%	11.1%	100.0%
	Col %	0.0%	0.0%	0.0%	45.6%	62.5%	12.0%
	Adj. resid.	-3.7	-12.7	-8.0	22.1	8.9	
Total	Count	96	662	359	351	32	1500
	Expected	96.0	662.0	359.0	351.0	32.0	1500.0
	Row %	6.4%	44.1%	23.9%	23.4%	2.1%	100.0%
	Col %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. *Count* = observed frequency; *Expected* = expected count; *Row %* = percentage within settlement-size category; *Col %* = percentage within self-declared place-of-living label; *Adj. resid.* = adjusted residual; *K* = thousand.

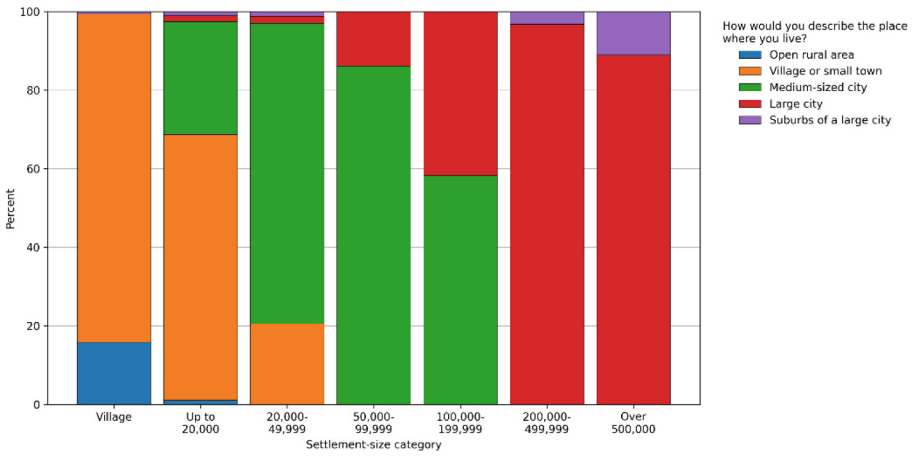

Fig. 2. Self-declared place-of-living categories by settlement-size category (row percentages).

The figure visualises the label gap directly: even where settlement-size category indicates an urban context, respondents often select labels that imply a different 'felt' residential identity.

To distinguish between current self-identification and residential aspiration, Table 5 presents the distribution of preferred place of residence. In a counterfactual preference question '*If you could choose your place of residence now …*', suburban options are selected substantially more often than in current self-identification. While only 2.1% of respondents currently describe their place of residence as 'suburbs of a large city', 12.9% identify suburban locations as their preferred residential setting, including 5.7% who choose the suburbs of a medium-sized city and 7.2% who choose the suburbs of a large city. This suggests that 'suburbs' is a salient category in respondents' mental repertoire, even if its use as a descriptor of current residence remains limited, consistent with boundary ambiguity and competition between labels rather than with simple non-recognition.

Table 5. Preferred place of residence.

Category	n	%
In the countryside	515	34.3
In a small town	243	16.2
In a medium-sized city	191	12.7
In the suburbs of a medium-sized city	86	5.7
In a large city	196	13.1
In the suburbs of a large city	108	7.2
Hard to say	161	10.7
Total	1500	100.0

Note. Question: 'If you could choose your place of residence now, where would you prefer to live?' n = observed frequency; % = percentage of all respondents; N = 1,500.

While the preceding results establish how respondents position their residential context in terms of settlement size and self-declared labels, the next step is to clarify why these categories matter. To do so, we examine perceived negative effects of residential moves from cities to suburban and rural locations as an 'impact layer' linking categorisation to the everyday burdens of dispersed settlement. As Table 6 shows, these perceptions are dominated by concerns about mobility and service capacity.

Table 6. Perceived negative effects of moves from cities to suburban and rural locations.

Negative effect	n	% of respondents
Increased congestion due to more car travel	904	61.1
Harder to organise public transport with longer commuting	577	39.0
Shortages in schools, kindergartens and clinics in suburban areas	434	29.3
Lower participation in cultural activities	419	28.3
Weaker ties with family and friends	411	27.8
Depopulation of city centres	362	24.5
Total	3107	210.0

Note. Question: 'What negative effects may result from moving from cities to suburban or rural locations?' Respondents could select up to three answers. n = observed frequency; % = percentage of respondents; $N = 1{,}480$.

The ranking reveals a clear hierarchy of perceived downsides. The most salient concern is mobility: 61.1% of respondents point to increased congestion resulting from greater reliance on car travel, while 39.0% highlight the difficulty of organising public transport under conditions of longer-distance commuting. A second tier shifts from transport to service provision, with 29.3% indicating shortages of schools, kindergartens and clinics in suburban areas. The remaining items point to broader social and urban-structural consequences, including reduced participation in cultural activities (28.3%), weaker ties with family and friends (27.8%) and the perceived depopulation of city centres (24.5%). Taken together, this pattern suggests that suburbanisation is understood primarily through everyday functional burdens, while a substantial minority also associate it with wider social and centre-periphery dynamics. In this sense, suburbanisation appears less as an abstract planning category than as a set of lived trade-offs spanning mobility, services and social life.

Because respondents could select up to three items from a closed list, the ranking should be interpreted as a measure of relative salience among predefined effects rather than as an exhaustive inventory; percentages therefore do not sum to 100.

4 Discussion

4.1 What the 'Suburban Label Gap' Actually is, and What it is Not

The core empirical pattern in this study is not that residents 'misreport' where they live, but that the same residential reality can be legitimately described through different classification logics. Settlement size and self-declared place-of-living type are strongly

associated, indicating that self-labelling is not random: respondents generally align their declarations with the demographic hierarchy of settlements. Yet within this overall consistency, the category ‘suburbs’ is rarely used in current self-description, even though respondents clearly understand ‘suburbs’ as a meaningful concept (see below). This combination, namely strong structure in responses but weak uptake of the ‘suburbs’ label, suggests that the label gap concerns not factual error but uneven adoption of a socially available category.

For planning, this is important because physically identifiable patterns of dispersed settlement do not necessarily correspond to the terms residents use to describe where they live. The results therefore point to a gap between environmental classifications and everyday self-description. In this sense, the ‘suburban label gap’ is not evidence that suburbanisation is absent, but evidence that its socially recognised labels are unevenly taken up.

4.2 Why Residents May Avoid the ‘Suburbs’ Label Even When Suburbanisation is Present

The literature provides several mechanisms that can plausibly explain the low share of ‘suburbs’ in self-identification.

First, self-declared residential categories often operate as spatial representations, that is, expressions of identity, belonging and status, rather than as objective measurements. Fortin and Després (2008) describe the ‘just middle’ (le juste milieu), a self-positioning between city and countryside that may be stable and attractive precisely because it avoids the stigma or ambiguity of ‘suburb’ [3]. Rousseau (2015) further links such representations to the defence of a lifestyle and local social order, which can translate into resistance towards policies framed as ‘densification’ or ‘anti-sprawl’ [10]. In this reading, the ‘suburbs’ label may be avoided not because residents misunderstand geography, but because it does not fit the identity they wish to claim.

Second, the category itself is intrinsically ambiguous and method-dependent. Different delimitation methods yield different ‘suburbs’ [11]. This is not only a technical issue; it becomes a social one when people cannot clearly recognise what counts as ‘the suburb’ in everyday experience. Category ambiguity is therefore structural rather than accidental, because ‘where the city ends’ is often negotiated through practice and belonging rather than through formal boundaries or indicators [1, 12].

Third, labels may also carry ideological weight. In some contexts, terms that describe peripheral growth are used as political tools, such as ‘sprawl’, ‘informal’ or ‘disorderly’, which may discourage self-identification with the category [13]. Even if Poland’s suburbanisation context differs from Mediterranean cases, the broader point remains: when a category is associated with critique or ‘bad development’, residents may prefer more neutral alternatives such as ‘village’, ‘small town’ or ‘city’.

4.3 Triangulation as a Planning Translation Tool, not a ‘Validation Test’

A key implication is methodological: the perception–environment approach should be framed less as a strict validation of survey declarations and more as a triangulation between classification systems that serve different purposes. There are good reasons not

to treat self-reports as direct measurements of spatial reality. Empirical work in other domains shows that self-reported proxies can produce substantial misclassification of exposure and distance [14]. In urban studies, however, the reverse problem is equally important: physically valid mapping may still fail to capture the categories through which residents interpret and discuss their surroundings. This is consistent with multi-dimensional approaches to sprawl measurement, in which land cover, density, continuity, centrality, proximity and functional relations capture different aspects of dispersed development rather than interchangeable categories [15–20]. Similar distinctions are embedded in functional urban area and degree-of-urbanisation approaches, which classify territories through density, contiguity or commuting integration rather than through residents' own place labels [21–27].

From this perspective, the value of triangulation lies in identifying where translation breaks down, namely where a land-cover signal suggests dispersed development, but the available social categories do not provide a matching label that residents recognise [28–30]. In this study, the monitoring layer is dominated by discontinuous urban fabric (CLC 112), a generalised land-cover category that captures fragmented built-up patterns but does not correspond to a single socially stable label and is not equivalent to the survey's narrow option "suburbs of a large city." This becomes especially relevant when planning instruments rely on persuasion and behavioural change, for example mobility shifts or service reorganisation, because in such cases category resonance may matter as much as spatial accuracy.

4.4 The Concept of 'Suburbs' Becomes More Visible When Asked as a Preference

An important nuance is that 'suburbs' become more visible when respondents are asked about preferred residential location rather than current self-identification. In the preference question, where respondents choose where they would rather live if they could, the two suburban options jointly account for a noticeably larger share than the self-identifying as suburban. This difference suggests that 'suburbs' function more as an imagined lifestyle category, that is, a future-oriented aspiration, than as a stable present-tense identity label.

This aligns with the 'just middle' logic: the suburban ideal can be attractive as a balance between access and tranquillity, while the 'suburbs' label may remain contested or unnecessary for describing one's current place of residence. In policy terms, this asymmetry is crucial. Residents may support suburban-style preferences and housing forms even if they do not accept 'suburbanisation' as a label for their own area. That disconnect can complicate communication around land-take reduction, because the policy frame of limiting suburban sprawl may not align with how people narrate their own choices.

4.5 Perceived Negative Effects as an 'Impact Layer' that Makes the Label Gap Policy-Relevant

Mobility concerns dominate. Increased congestion from greater car travel is selected most frequently (61.1%), followed by the difficulty of organising public transport under longer-distance commuting (39.0%). This ordering is consistent with the idea that travel

burdens are experienced repeatedly and are therefore readily available when respondents are asked to identify negative consequences. For the paper's core argument, the implication is communicative and diagnostic rather than causal. Mobility and essential service capacity do not 'prove' suburbanisation, but they provide a shared, non-identity-loaded language through which dispersed settlement is discussed and evaluated. Where 'suburbs' is rarely adopted as a self-description, policy narratives built primarily around the suburbanisation label may struggle to resonate as descriptions of present-day lived reality. By contrast, congestion, public transport feasibility and service capacity are interpretable across settlement types and social identities, making them useful entry points for communicating the costs of dispersed development and for linking land-take monitoring to concerns that residents readily recognise [4].

4.6 Planning Implications: Translating Contested Labels into Functional Concerns

The practical implication of the suburban label gap is that concepts such as suburbanisation, sprawl or land take, require translation into socially recognisable terms. If "suburbs" is weakly adopted as a current self-description, policy communication based primarily on the suburbanisation label may not correspond to how residents describe their own environments. This is especially relevant for policies that depend on public acceptance, such as densification, limits on greenfield development, parking restraint, public transport reorganisation or the coordination of schools, kindergartens and healthcare facilities.

Three recommendations follow. First, land-cover and settlement-hierarchy indicators should be complemented by perception-sensitive survey items distinguishing current self-description, residential preference and perceived functional burdens. Second, communication around land artificialisation should focus more on consequences that residents recognise directly, especially congestion, car dependence, public transport feasibility and service capacity. Third, planning diagnostics should combine morphological, functional and subjective indicators rather than treating any single classification as sufficient. CLC can identify discontinuous built-up contexts, settlement-size data can locate respondents within the urban hierarchy, functional data can capture accessibility and service provision, and place labels can reveal whether expert categories are socially recognised.

5 Conclusion

By triangulating CORINE Land Cover exposure with settlement-size context and self-declared place labels, this paper demonstrates that suburbanisation cannot be inferred from any single classification system. The monitoring layer captures predominantly discontinuous urban fabric, a necessarily coarse signal given CLC's minimum mapping unit, yet the metropolitan label 'suburbs' remains weak as a descriptor of current residence. Rather than indicating misreporting, this pattern is interpreted as a translation gap between nominal, planner-facing categories and the socially meaningful ways in which people understand, imagine and value where they live. The concept of the suburban label gap captures this mismatch.

The approach is replicable beyond Poland. Its main requirement is the availability of three comparable layers: a land-cover or built-form indicator, a settlement-hierarchy or administrative-context variable, and a survey item capturing residents' own place labels or residential self-identification. In other contexts, CORINE Land Cover could be replaced or complemented by Urban Atlas, national land-cover datasets, cadastral data or gridded built-up indicators, while settlement size could be substituted by degree-of-urbanisation classes, functional urban area membership or commuting-zone classifications. The relevant label would need contextual adaptation, since "suburb", "peri-urban area", "commuter belt", "urban fringe" or locally specific equivalents may carry different meanings across planning cultures. Replication would therefore allow comparison not only of suburbanisation as a spatial process, but also of how far its policy labels are socially recognised.

In this sense, the suburban label gap can be treated as a transferable diagnostic problem: wherever expert classifications and everyday residential labels diverge, planning communication may require an additional translation layer.

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