



The Governance of Wellbeing-Producing Shared Spaces in the Housing Cooperative Saarlandstrasse in Hamburg, Germany

Marina Montelongo^{ORCID}, Udo Dietrich^{*ORCID}

Department of Architecture, HafenCity University Hamburg (HCU), Hamburg 20457, Germany

Corresponding Author Email: udo.dietrich@hcu-hamburg.de

Copyright: ©2026 The authors. This article is published by IETA and is licensed under the CC BY 4.0 license
(<http://creativecommons.org/licenses/by/4.0/>).

<https://doi.org/10.18280/ijstdp.210611>

ABSTRACT

Received: 19 February 2026

Revised: 10 May 2026

Accepted: 20 May 2026

Available online: 30 June 2026

Keywords:

*cooperation, governance, housing
cooperatives, shared spaces, sustainable
wellbeing*

This paper examines the spatial and institutional conditions facilitating sustainable wellbeing in the housing cooperative Saarlandstrasse in Hamburg, Germany, where residents derive social, emotional, and physical wellbeing from shared spaces. Like other commons, these spaces require sustained cooperation to ensure their long-term viability. How can cooperation be stabilized over time? Drawing on Common Pool Resource (CPR) theory, we argue that the German housing cooperative statute operationalizes CPR governance principles, thereby helping to stabilize cooperation among residents. To explore this proposition, we use a mixed-methods case study of Hamburg's first car-free housing settlement. Data include surveys from 25 households (51% response rate), interviews, and field material collected between 2020 and 2024. Deductive framework analysis of statute and governance practices indicated substantial alignment with Ostrom's CPR principles, alongside high wellbeing and cooperation: 96% of respondents reported regular interactions with neighbours, 92% considered the complex easy to relax in, 92% reported feeling healthy, and 96% participated in at least one working group. Green areas and the common room emerged as the spaces most strongly associated with wellbeing practices and cooperative maintenance. The case illustrates how shared spaces can support wellbeing through stabilized cooperation, acting as both outcomes and drivers of collective action.

1. INTRODUCTION

The Gallup Global Emotions Index recorded its highest-ever levels of negative emotions such as stress, sadness, anger, and physical pain in 2022, continuing an upward trend observed for more than a decade [1-3]. In parallel, global temperatures are projected to keep rising, significantly reducing nature's capacity to contribute to human wellbeing [4]. These developments highlight the urgency of transitioning toward sustainable cities and societies that place stronger value on human social, emotional and physical needs beyond economic indicators.

The immediate living environment plays a central role in shaping personal quality of life [5, 6]. Research on residential environments that prioritize individual wellbeing has often focused on alternative housing niches such as cohousing, ecovillages, intentional communities, and housing cooperatives. Among these models, housing cooperatives are particularly relevant because they combine collective forms of organization with broader institutional integration into national housing systems. In Germany, approximately 2,000 housing cooperatives provided around 2.2 million dwellings in 2026, representing roughly 5% of the national housing stock [7].

Recent literature highlights the potential of housing cooperatives to address health and wellbeing challenges

through mechanisms such as affordability, collective decision-making, and social cohesion, which can reduce financial stress while strengthening security, autonomy, empowerment, and social inclusion [8]. Complementing these findings, Reyes et al. [9] identified additional mechanisms linking cooperative housing to wellbeing, including tenure arrangements, inter-cooperative networks, building design, construction materials, and shared spaces. These mechanisms contribute to the formation of local networks, senses of belonging, comfort, and opportunities for social interaction. Shared facilities such as common rooms, bicycle parking areas, and guest apartments have been associated with social interaction, collaboration, and mutual support, as well as with the formation of social capital and social norms [9-12].

While shared spaces are often celebrated for their wellbeing benefits, considerably less attention has been paid to the governance arrangements that sustain these benefits over time. Shared spaces are not self-sustaining. Gardens require maintenance, common rooms need coordination, and collectively used facilities depend on continuous resident participation. In this sense, shared spaces can be understood as commons-like resources whose use depends on what Stavrides [13] described as the "politics of sharing" in contrast to logics of individual ownership.

The need for effort and organization to maintain shared facilities in collective housing is widely recognized. However,

cooperation is often treated either as an expected feature of shared lifestyles, sustained through residents' commitment and the "emotional labour" involved in everyday coordination [11], or as an implicit outcome of existing institutional arrangements. As a result, cooperation tends to be framed in normative or practical terms rather than as a process requiring specific mechanisms of stabilization. In the absence of broader organizational frameworks that structure key dimensions such as the division of labour, collective initiatives risk remaining "idealised experiments" [14]. Similarly, the limited analytical attention given to the maintenance of shared spaces in housing cooperatives suggests that cooperation is frequently assumed rather than examined. This raises a central question: how can cooperation around shared spaces be stabilized over time?

This paper conceptualizes shared spaces as commons-like resources whose capacity to support sustainable wellbeing depends on institutional arrangements capable of stabilizing cooperation over time. If residents disengage, shared spaces may deteriorate, undermining the wellbeing practices they support.

Drawing on Common Pool Resource (CPR) theory [15-17], this paper examines the conditions that facilitate sustainable wellbeing in the German housing cooperative WEG Autofreie Wohnsiedlung (WEG 19) in Hamburg. In line with the literature on social transitions, sustainable wellbeing is understood here as the set of practices that positively influence the social, emotional, and physical states of individuals, such as relaxing, engaging with nature, or gathering with others [18-21].

CPR theory argues that individuals can successfully self-organize around shared resources when appropriate governance arrangements are in place, including clearly defined boundaries, collective and adaptive rule-making, monitoring systems, conflict-resolution arenas, and institutional recognition. The central assumption of this paper is that the cooperative statute and governance practices of WEG 19 help operationalize these CPR principles, thereby stabilizing cooperation around shared spaces over time. The paper therefore examines whether and how these governance arrangements contribute to the long-term reproduction of sustainable wellbeing practices.

The paper examines this argument through a mixed-methods case study of Saarlandstrasse, Hamburg's first car-free housing settlement, where the housing cooperative WEG 19 is located [22]. The project offers the opportunity to observe everyday wellbeing practices linked to shared spaces and collective organization over a period of more than 25 years, making it a suitable case for examining how institutionalized cooperation may contribute to long-term wellbeing outcomes. The empirical material includes a household survey, interviews, and field material collected between 2020 and 2024. Using a deductive framework analysis based on Ostrom's CPR principles, the paper examines how governance arrangements support cooperation around shared spaces and how these spaces relate to sustainable wellbeing practices.

This study makes three contributions. First, it contributes to research on cooperative and collaborative housing by showing how specific shared spaces support different forms of sustainable wellbeing in everyday residential life. By linking particular wellbeing practices to specific shared spaces, the paper provides insights into how residential environments can align spatial configurations with targeted wellbeing outcomes. Second, it identifies the forms of cooperation required for the

maintenance and everyday functioning of these spaces, helping to clarify the organizational demands involved in sustaining shared wellbeing over time. Third, it contributes to CPR theory by providing empirical evidence of how cooperative governance arrangements may help stabilize cooperation around collectively managed spaces. In doing so, the paper develops a relational understanding of shared spaces as both outcomes and drivers of cooperation: they are produced and maintained through collective action, while the wellbeing experiences they enable may also reinforce residents' motivation to continue cooperating over time.

The remainder of the paper is structured as follows. The next section presents the main assumptions of CPR theory. This is followed by the methodology and analysis strategy. The paper concludes by discussing the main findings and their implications.

2. THEORETICAL FRAMEWORK

CPR refers to "natural or humanly created systems that generate a finite flow of benefits where it is costly to exclude beneficiaries and one person's consumption subtracts from the amount of benefits available to others" [17].

A central challenge in the governance of CPR is sustaining cooperation for their creation and long-term maintenance while preventing free riding, occurring when individuals benefit from shared goods without contributing to them [15, 23]. Ostrom [17] argued that a first step in addressing this problem is to create conditions that allow conditional cooperators—individuals willing to cooperate as long as reciprocity is maintained—to interact and coordinate, thereby enabling the emergence of effective governance systems that limit the ability of rational egoists to undermine collective outcomes.

Such systems are structured around a set of governance principles that jointly address key second-order cooperation problems: rule supply, credible commitment, and mutual monitoring. The supply problem arises when changing conditions require new or revised agreements to rebalance benefits and obligations among participants. Even once agreements are in place, incentives to defect threaten credible commitment, making monitoring essential. These challenges are tightly interlinked, and cooperation breaks down if anyone is absent: "Without monitoring, there can be no credible commitment. Without credible commitment there is no reason to propose new rules" [17].

The core principles characterizing successful cooperation systems can be summarized as follows [15, 17]:

- (1) Clearly defined boundaries. Access is restricted to users who agree to comply with the rules of use. Membership may be formal or symbolic, reinforcing mutual trust, while physical boundaries prevent outsiders from appropriating the benefits produced.
- (2) Congruent arrangements. Rules defining when, how, and how much the resource may be used are clear to all users, ensuring that the relationship between benefits and responsibilities is perceived as fair.
- (3) Collective and adaptive arrangements. Individuals affected by the rules participate in their design and modification, increasing their perceived effectiveness, as they are tailored to local circumstances, and their fairness, thus facilitating compliance.

- (4) Monitoring. Monitoring reduces rule violations and strengthens trust in compliance. Monitoring costs depend on the number of participants, the ease of observation, and the perceived costs and benefits of rule breaking.
- (5) Gradual sanctions. Sanctions are applied according to the context and severity of the violation in order to prevent a general decline in cooperation.
- (6) Conflict management arena. Accessible mechanisms exist for resolving conflicts and clarifying rules among participants.
- (7) Institutional awareness. Recognition by external authorities legitimizes locally crafted rules and facilitates their enforcement.
- (8) Nested enterprises. In large or complex systems, governance is organized across multiple nested levels, with subsystems operating under their own rules.

Over time, these principles foster robust normative systems that reduce governance costs, including the need for intensive monitoring. The expectation that future generations, such as children or grandchildren, will benefit from the resource reinforces this effect [15], while motivating continued participation in processes of rule experimentation and institutional tinkering that allow the system to improve [24].

As with any common resource, shared areas that generate collective benefits create incentives for free riding, such as avoiding maintenance tasks or the social costs of reporting rule violations. When such behavior becomes widespread, collective outcomes deteriorate and the resource itself may become unusable.

This paper argues that the statutes of German housing cooperatives address the core assumptions of CPR theory by facilitating cooperation toward the common good, here conceptualized as the production of social, emotional, and physical wellbeing. The following section outlines the research design employed to examine this claim.

3. RESEARCH DESIGN AND DATA COLLECTION

The research design consists of three parts. First, it identifies the forms of wellbeing produced and the spaces in which they occur. Second, it examines the forms of cooperation that sustain these practices. Third, it analyses the cooperative statute and its correspondence with the core assumptions of CPR theory. This section begins with an introduction to the urban quarter in which the housing cooperative is located, followed by a description of the data collection process and analytical strategy.

3.1 The setting

The Saarlandstraße quarter is located approximately 4 km north of Hamburg's city centre, close to Hamburg Stadtpark, a historically significant landscaped area. The site has a rectangular layout structured around a central boulevard that serves as the main access point and is bordered by a canal to the east and south. On the east side of the boulevard lies the Autofreies Wohnprojekt Saarlandstraße e.V. [Car-free housing project Saarlandstrasse], originally planned to include 230 apartments distributed across three large building blocks arranged along the boulevard. Each block consists of a four- to five-story L-shaped housing building and a smaller square

building, which encloses the space and creates a central courtyard that enhances privacy (for a comprehensive overview of Saarlandstraße's car-free housing project, see [22]). The case studied is located in the southern part of the site and comprises 49 apartments, occupied since 2000.

The dwellings are managed by a housing cooperative (Mietergenossenschaft Wohnwarft eG, 31 apartments) and a group of apartment owners (Wohnungseigentümergeinschaft Barmbeker Stich, 18 apartments). Together, these entities initiated the car-free project and operated throughout all project stages as a single, fully self-administered cooperative under the name WEG 19.

3.2 Data collection and analytical strategy

To support the assessment of the efficacy of the German cooperative statute in fostering sustainable wellbeing, we adopted a mixed-methods approach, which allows for the convergence and corroboration of findings and supports the development of an integrated understanding of the phenomenon based on several perspectives [25, 26]. Survey, interview, observational, and visual materials, including photographs and video recordings, were collected in situ between June 2020 and November 2024.

Two initial semi-structured interviews, lasting approximately 1.5 hours each, focused on the origins of the car-free settlement and its internal organization. The interviews were conducted in English and German with three cooperative members selected for their experience as initiators and as members of the community board at different stages. These key informants remained involved throughout the research process, contributing to the clarification of emerging gaps and the validation of findings.

The survey consisted of 61 questions distributed across three sections. Section one (wellbeing) explored participation in sustainable wellbeing-related activities and the spaces where they take place. Three forms of wellbeing were included: social wellbeing assessed social interaction, emotional wellbeing was appraised in terms of opportunities for relaxation, and physical wellbeing examined health through the extent of sports activities. Section two (cooperation) surveyed involvement in cooperative activities. Section three (governance) examined the extent to which CPR principles are in place. In all cases, validated scales were used [27-30] or informed the development of our own questions. Most items measured perceptions using a five-point Likert scale. Facility-use frequency questions were measured using a six-point ordinal scale, while open-ended questions were used to explore in greater depth the relationships between shared spaces, wellbeing, governance, and cooperation.

Open-ended responses and interview material were analysed using a qualitative analytical approach informed by the framework method [31]. The analysis followed the overall research design of the paper and combined deductive and inductive analytical strategies. First, qualitative responses were organized according to the three predefined forms of wellbeing (social, emotional, and physical wellbeing), associated activities, and the shared spaces in which they take place. Second, categories of cooperation emerged inductively from the data and were subsequently organized according to the forms of cooperation associated with different shared spaces. Third, the cooperative statute, governance practices, and residents' accounts of community dynamics were examined through a deductive analytical framework based on

Ostrom's CPR principles in order to assess the extent to which institutional arrangements aligned with key CPR governance dimensions.

The questionnaire was distributed through the cooperative board, with one response requested per household. To increase participation, both online and printed versions were made available. In total, 25 out of 49 households completed the survey, resulting in a response rate of 51%. The respondents' profile is as follows: 68% are female; 48% are aged between 45 and 64 years and another 48% between 65 and 79 years. Most hold a university degree (80%), nearly half are in active employment (48%), 72% are tenants, and 76% have lived in the community for more than 20 years.

Documentation and direct observation, including participation in social activities such as the show choir performance, complemented the survey and interview data.

4. ANALYSIS

The analysis is structured in three interconnected stages following the overall research design. First, it identifies forms of wellbeing and the shared spaces in which they occur. Second, it examines the cooperative practices required to sustain these spaces over time. Third, it analyses the cooperative statute and governance arrangements through the lens of CPR theory. Together, these stages examine how shared spaces, cooperation, and institutional arrangements interact in the production and maintenance of common wellbeing.

4.1 Forms of sustainable wellbeing and their spatial settings

This section examines the forms of sustainable wellbeing reported by cooperative residents and spaces where they are performed, drawing on survey data that combines closed- and open-ended responses from 25 households. First, the closed-ended responses are presented to provide an overall overview of wellbeing outcomes, followed by the open-ended responses, which offer more detailed insights into residents' experiences. As previously indicated, social wellbeing is assessed in terms of social interaction, emotional wellbeing in terms of opportunities for relaxation, and physical wellbeing in terms of sports and physical activities.

Social wellbeing. Sixty-four percent of respondents participated in neighborhood activities at least a couple of times per month. Ninety-six percent reported conversations lasting more than five minutes with neighbors at similar frequency, and 60% engaged in regular group activities just as often.

Emotional wellbeing. Ninety-two percent agreed that it is very easy to relax in the complex, 84% agreed that there are sufficient areas for rest and relaxation, and 88% agreed that natural elements such as birds, wind, or flowers are easily perceived.

Physical wellbeing. Ninety-two percent agreed that they feel healthy, 75% indicated that it is possible to engage in various sports within the cooperative's spaces, and 68% agreed that there are sufficient areas and facilities for exercise throughout the year.

While these results indicate a generally healthy community across the three forms of wellbeing analyzed, open-ended

survey questions reveal residents' preferred spaces and activities. Spaces were identified both through direct mentions of favorite locations and indirectly via reported group activities, capturing both affective valuation and functional support. Respondents also indicated spaces for spontaneous conversations lasting more than five minutes and for relaxation. Only spaces mentioned by at least three respondents (over 10% of the sample) are included, ensuring recurring patterns are captured. The green areas comprise the central courtyard and the boulevard, treated separately as the courtyard functions primarily as an intimate group space, while the boulevard is more public. Table 1 summarizes these findings. The open-ended responses provide deeper insights into the three forms of wellbeing analyzed.

Social wellbeing. The versatility of the common room in hosting a wide range of activities identifies it as the most important space for collective social practices, particularly regular group activities such as the choir and gymnastics, which expanded into green areas during the COVID-19 period. It also serves as the main venue for celebrations (e.g. New Year's drinks, birthdays) and for activities that vary over time, including Tai Chi, painting, literature, dancing, seasonal events, seniors' breakfasts after walks, film screenings, refugee support initiatives, and learning-oriented activities such as the philosophy group and memory training for seniors. Several additional spaces were mentioned only once or twice, pointing to more individualized or small-scale social practices. These include organizing dinners on the roof terrace, game nights at home, lighting a shared fire in the fireplace, or having joint meals in the courtyard or the seasonal outdoor pavilion.

Together, these responses illustrate the diversity of social activities within the cooperative. Regarding spontaneous conversations lasting more than five minutes, the courtyard emerges as the most frequently mentioned space, followed by the boulevard and staircases. Less commonly mentioned locations for such interactions include the roof terrace, balconies, building fronts, and shared facilities such as the bicycle house, laundry basement, compost, or waste areas.

Emotional wellbeing. Respondents cited quietness, greenery, and a pleasant atmosphere as key reasons for preferring green areas for relaxation. The courtyard is the most valued place, with most respondents identifying it as their primary relaxation spot. Other relevant places mentioned for relaxation include the landing stage by the canal, roof terraces, and benches in specific locations. Less frequently mentioned were the common room, balconies, and residents' own apartments, while nearby external spaces such as the adjacent park (Stadtpark) were also noted. No respondents mentioned group-based activities related to relaxation, indicating that emotional wellbeing is mainly experienced individually.

Physical wellbeing. While the courtyard is mainly used for informal physical activities, the boulevard and the canal offer opportunities for more structured sports such as basketball, ball games, cycling, go-karting, and aquatic activities. The common room and green areas are especially important for members of the gymnastics group, while the nearby Stadtpark serves as the primary location for the walking group. It should be noted that the main users of the boulevard are children and younger residents, who were not represented in the survey.

The welfare system described above requires cooperation to be maintained. The analysis below disentangles the forms of cooperation necessary to sustain collective wellbeing and examines how community members contribute to this process.

Table 1. Forms of sustainable wellbeing, spaces, and activities in the cooperative

Forms of Wellbeing	Space	Activity	Direct Mentions (Favourite Place)	Indirect Mentions (Favourite Activity)
Social (favourite place)	-Common room	-Versatile, meeting point	6	
	-Courtyard	-Versatile, meeting point	6	
Social (favourite group activity)	-Common room	-Choir		9
	-Common room	-Celebrations		5
	-Common room	-Mind and learning activity		3
	-Courtyard		15	
Social (conversations)	-Boulevard	Conversations (>5 min)	9	
	-Staircase		8	
	-Courtyard		10	
Emotional (favourite place)	-Green areas	Relaxation	13	
	-Landing stage		7	
	-Roof terrace		5	
Emotional (relaxation place)	-Benches	Relaxation	5	
	-Canal		3	
	-Stadtspark (outside)		3	
	-Outside		3	
Physical (favourite place)	-Courtyard	Sport / physical activities	3	
Emotional (favourite group activity)	-Common room and gardens			6
	-Stadtspark (outside)			3

Table 2. Cooperation across shared spaces

Space	Yes	No	Not Applicable	Cooperation Activities
Green areas	22	2	1	<i>Sustainable:</i> Weeding, watering, flower bed maintenance, hedge trimming <i>Incidental:</i> Tree and plant planting, tree house construction
Common room	19	5	1	<i>Sustainable:</i> Cleaning and tidying <i>Incidental:</i> Furniture acquisition
Terraces	15	9	1	<i>Incidental:</i> Renovation
Playgrounds	13	11	1	<i>Sustainable:</i> Cleaning and tidying, sand replacement and maintenance, weeding
Bike shelter	12	12	1	<i>Sustainable:</i> Cleaning and tidying
Ramps	12	12	1	<i>Sustainable:</i> Cleaning and tidying, leaf sweeping
Paved roads / areas	11	13	1	<i>Sustainable:</i> Cleaning and tidying, sweeping, weeding <i>Incidental:</i> Snow removal
Court for ball games	10	14	1	<i>Sustainable:</i> Cleaning and tidying, sweeping, weeding
Places to sit and lie	9	15	1	<i>Incidental:</i> Financial contribution

4.2 Cooperative practices and their spatial settings

Space-specific forms of cooperation were examined through a dichotomous (yes/no) question for each shared space, followed by an open-ended question specifying the type of contribution. Reported practices were classified as sustained, involving recurrent maintenance essential for shared spaces, or incidental, encompassing reactive or one-off actions. Counts per activity are omitted, as many respondents indicated having contributed “to everything” rather than specifying individual spaces; nevertheless, representative tasks are included to illustrate the types of activities carried out in each space. Results are presented in Table 2.

The responses allow us to identify the concrete cooperative practices supporting the everyday functioning of spaces associated with different forms of wellbeing. The analysis shows that, while cooperation is widespread across all shared spaces, two stand out clearly: the green areas and the common room. The green areas concentrate both the highest number of participants and the greatest diversity of cooperative practices, particularly gardening-related tasks ranging from planting and watering to weeding and general upkeep. The common room, in contrast, is mainly associated with recurrent cleaning and tidying activities.

These findings closely mirror the wellbeing analysis: the green areas were the most valued and functionally central

space for emotional wellbeing, while the common room was the primary setting for social wellbeing activities such as celebrations.

Both spaces were also among the most important for physical wellbeing. This alignment highlights cooperation as a necessary enabling condition for the sustained use of the spaces most critical to everyday wellbeing practices. Figure 1 provides a graphical report of these findings. The figure was developed based on survey responses, highlighting in black the most frequently reported maintenance activities, and illustrates their spatial distribution across the courtyard (a) and the boulevard (b).

A key expression of the highly organized cooperation is the community working groups. At the time of the survey, 14 working groups were active, covering a wide range of organizational, technical, environmental, and social aspects of community life: Energy and Heating; Technical Systems; Key Card Management; Task Documentation (Home Ownership Act); Heavy Rain Response; Green Areas; Common Room; Climate Action; Spring and Autumn Cleaning; Neighborhood Table; Bicycle Parking; Laundry Accounting; Mediation, Minutes and Meeting Facilitation; and Construction and Modernization.

Accordingly, 24 of the 25 respondents reported having participated in at least one working group, and at least ten reported involvements in broader organizational tasks, such as

janitorial duties, administrative roles, or membership in the community board. In addition, twice a year, a collective cleaning day takes place, during which volunteers carry out a thorough cleaning of all shared areas.

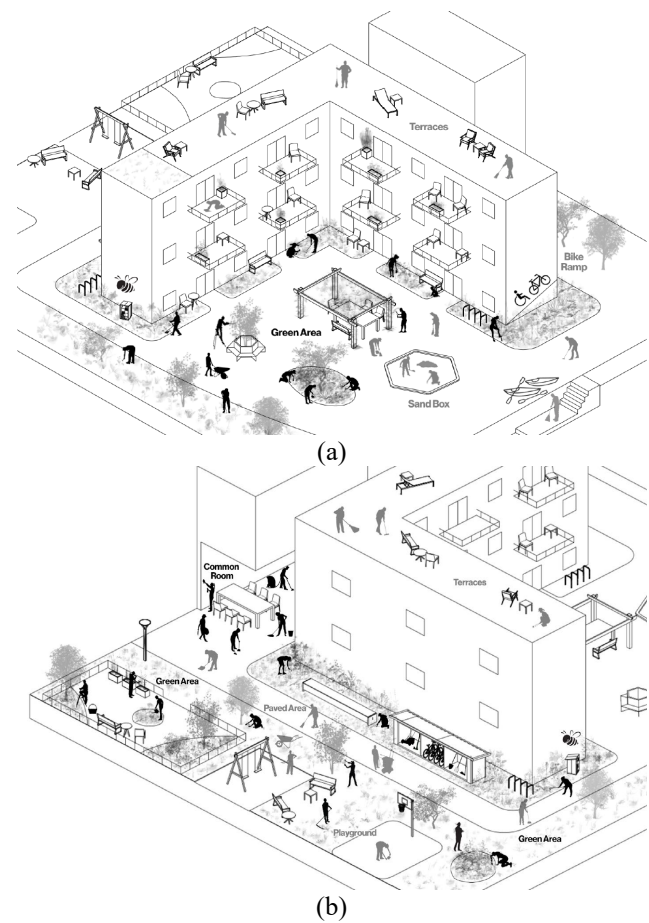


Figure 1. Cooperative maintenance activities across shared spaces
 Note: Drawing by Christopher Fehst under the supervision of the authors, 2023

Collective action has sustained the cooperative for over two decades through an institutional framework that organizes and reinforces cooperation. The following section analyses how the cooperative statute aligns with CPR principles to enable long-term cooperation.

4.3 Aligning cooperative statute with Common Pool Resource governance principles

This section examines the extent to which the German housing cooperative statute aligns with the governance principles of CPR theory. It begins by introducing the institutional and organizational characteristics of the cooperative statute and governance structure. It then applies Ostrom’s design principles as predefined analytical categories to examine how institutional arrangements and governance practices correspond to CPR governance principles.

The primary objective of housing cooperatives is to provide long-term, affordable housing with secure tenure for their members [32]. These objectives are pursued through a specific legal framework and a cooperative statute that defines the internal organizational structure. Specific regulations support affordability goals, such as the Social Housing Promotion Law (Soziales Wohnraumförderungsgesetz), which sets criteria

regarding dwelling size, equipment, and maximum rents [33]. In addition, housing cooperatives form part of Germany’s non-profit rental sector and are exempt from corporate tax.

Table 3. Governance bodies and their functions in a typical German housing cooperative

Executive Board - Functions	Supervisory Board - Functions
Cooperative management	Appointment of executive board members
Legal representation of the cooperative	Signing employment contracts for executive board members
Signing contracts on behalf of the cooperative	May set members of executive board out of function until the general assembly decides
Reporting to the supervisory and cooperative board	Representation of the cooperative before the executive board (complaints)
Annual reporting to the general assembly	Reporting to the executive board
	Annual reporting to the general assembly
	Examination of executive board reports
	Monitoring the executive board
Joint meetings of executive and supervisory board - functions	
Decision-making on principles for new constructions, maintenance, management, sales, and other matters related to apartments and buildings; requires separate approval by both boards.	
General Assembly (members of the cooperative) - functions	
Amendments to the statute	
Structural and organizational adaptations of the cooperative	
Election of the supervisory board	
Confirms by-laws of executive and supervisory board	
May remove members of executive board and supervisory board	
May revoke proposal of supervisory boards in regard to members of executive board	
Establishment of criteria for apartment distribution	
Management of financial surplus	
Approval of the Executive Board’s annual report and disburdens of the executive and supervisory boards	

Source: Authors, based on the study [34]

Secure long-term housing is based on a distinctive ownership structure. In a housing cooperative, dwellings are collectively owned by the cooperative, while residents rent their units after purchasing a cooperative share. This initial investment grants access to below-market rents and confers a dual status as both tenants and collective owners.

Cooperative status grants both rights and obligations. Residents participate in governance bodies, allowing them to influence decisions, defend their interests [32], and receive protection against non-consensual evictions. Their participation is embedded in the statute rather than voluntary, situating cooperative membership within a framework of substantial commitment and self-governance.

Legally, housing cooperatives operate as registered cooperatives under the German Cooperative Societies Act [34]. This legal form defines the roles, responsibilities, and relationships between actors, largely standardizing the internal structure while allowing variation in implementation [5].

The governance structure of a typical German housing cooperative can be summarized as follows. Cooperative members participate in the general assembly, which constitutes the highest decision-making body. While strategic decisions are taken by the assembly, day-to-day tasks are delegated to different boards. The executive board leads the cooperative and is accountable to the general assembly. Typically, the assembly elects a supervisory board, which in turn appoints and oversees the executive board. The supervisory board operates as an independent control body, while remaining accountable to the general assembly. Table 3 provides an overview of this governance structure.

Based on this institutional and organizational overview, the following analysis applies a deductive framework analysis to assess how the cooperative statute operationalizes CPR governance principles. Each principle is used as a predefined analytical category to systematically categorize and interpret statutory provisions and governance arrangements in relation to their role in sustaining cooperation around shared spaces.

- (1) Clearly defined boundaries. Group belonging is clearly established through formal cooperative membership, while a shared commitment to a car-free lifestyle further reinforces social boundaries.
- (2) Congruent arrangements. Affordable rents and secure long-term tenure correspond to members' financial contributions and organizational engagement within the cooperative. This congruence also extends to everyday practices, such as the obligation to clean the common room after use.
- (3) Collective and adaptive arrangements. The formal rights and obligations attached to cooperative membership reflect the principle of collective-choice arrangements by granting members direct influence over rules governing shared resources. Through the general assembly, members retain ultimate decision-making authority, including the election and removal of supervisory and executive boards, enabling participation in rule modification either directly or via elected representatives. Its regular meetings (three to four per year) allow for continuous adjustment of rules to local conditions.
- (4) Monitoring. The supervisory board acts as an independent oversight body controlling the executive board, while the executive board reports regularly to the supervisory board; both remain accountable to the general assembly, creating a system of mutual and continuous monitoring. Regular reporting and formal documentation ensure transparency and allow members to assess compliance with collectively agreed rules. Currently, around ten residents serve on governance boards, meeting monthly, with board composition changing every five to eight years. In addition, the architectural layout of the cooperative enables everyday observation of shared spaces, allowing for immediate informal responses when needed.
- (5) Gradual sanctions. Infractions are rare. Minor conflicts between neighbours are addressed through mediation, while more complex issues—such as disagreements over common room costs—are handled through workshops and collective deliberation or by the relevant board, facilitating graduated sanctions and context-specific solutions. Only exceptional cases, for instance unauthorized

subletting, are escalated to formal legal proceedings.

- (6) Conflict management arena. The common room functions as the main formal arena where working groups and governance bodies converge, enabling accessible and low-threshold processes for discussing, negotiating, and resolving community issues.
- (7) Institutional awareness. The cooperative statute grants the cooperative full legal personality, formally recognizing its right to self-organize and govern shared resources. This legal recognition provides institutional security and support for members' collective action and decision-making.
- (8) Nested enterprises. Although the cooperative operates within a national statutory framework, the shared spaces analysed are fully administrated at the cooperative level and do not constitute part of a nested system of interdependent resource units. Thus, this principle is not further analysed.

The analysis suggests that the cooperative statute largely aligns with and operationalizes the seven CPR governance principles examined. Consistent with theoretical expectations, the survey data indicate the emergence of social norms such as trust, reciprocity, perceived fairness, and willingness to comply with agreements.

Eighty percent of respondents agreed that they feel part of a group, 92% agreed that they can trust people in the neighborhood, and 88% considered the resources invested in the neighborhood to be worthwhile. In contrast, perceptions of the fair distribution of work were more mixed, with only 40% agreeing and 28% remaining neutral.

Ninety-two percent agreed that everyone has the opportunity to shape decisions concerning common facilities, and 84% considered most common rules to be fair. Similarly, 84% agreed that most neighbors comply with common agreements. However, perceptions were less strong regarding enforcement: 72% considered it very likely that someone would react to rule violations, and 56% believed that violations would lead to consequences.

While 72% agreed that neighborhood problems are addressed, only 12% felt they could rely on support from local authorities, with 28% expressing a neutral position and 32% indicating that the item was not applicable.

Overall, the findings suggest that the cooperative statute does not merely align with CPR principles in formal terms but actively structures a governance system in which legal arrangements, spatial configurations, and social norms interact to sustain cooperation around shared spaces. At the same time, several points of tension remain. These relate particularly to the balance between openness and control, the perceived fairness and intensity of maintenance contributions, the experiential limits of social monitoring in highly shared environments, and concerns regarding the sufficiency of the shared resource.

With respect to boundaries, the green areas function as semi-open spaces. A few residents reported that outsiders occasionally enter the playgrounds and leave litter. From a CPR perspective, while stricter enclosure could strengthen boundary enforcement, it might also generate social costs by reducing openness, inclusivity, and neighbourhood integration.

Regarding contribution fairness and monitoring, most respondents considered the investment of time, money, and personal skills in the cooperative to be worthwhile. However,

perceptions of fairness in the distribution of maintenance tasks vary, with some participants describing these responsibilities as extensive and time-consuming. In addition, while continuous visibility in shared spaces supports informal monitoring, several respondents noted that this high level of social transparency can at times feel intrusive, suggesting that social control is not uniformly experienced as positive.

The common room emerges as a central arena for conflict resolution and collective decision-making, supporting the everyday functioning of the statute and its institutional arrangements. It is the only shared space occasionally opened to non-members when a resident is involved, which requires ongoing negotiation and consensus-building. During the study period, for example, a dispute was being negotiated regarding its use on New Year's Eve—whether to allocate it for private celebrations or reserve it for a collective event, as had been customary prior to the COVID-19 crisis. Variations in institutional awareness were described by key informants as a consequence of high levels of self-governance, which reduces reliance on external institutional guidance. Finally, several respondents noted that the complex can feel noisy, small, or overcrowded, raising concerns about the sufficiency and spatial limits of the shared resource.

5. CONCLUSIONS

Shared spaces play a central role in the production of sustainable wellbeing by supporting everyday social, emotional, and physical practices. However, these spaces are not self-sustaining: their long-term functioning depends on continued cooperation around their maintenance, management, and use. This paper has examined how such cooperation can be stabilized through governance arrangements institutionalized in the German housing cooperative statute. The analysis indicates a strong correspondence between the cooperative statute and the governance principles proposed by CPR theory, suggesting that institutional arrangements play a central role in structuring, normalizing, and sustaining cooperation oriented toward shared wellbeing.

A large part of the cooperative's success lies in the clear institutionalization of cooperation through three governance bodies: the general assembly, the executive board, and the supervisory board. Together, these bodies address key CPR challenges of provision, credible commitment, and monitoring by allocating specific functions, procedures, and schedules. Periodic statute-mandated meetings facilitate the provision of agreements that re-balance benefits and obligations, while ensuring the execution of mutual monitoring.

Crucially, participation in at least one governance body is mandatory rather than voluntary and constitutes an integral part of membership. Strong incentives for sustained participation are provided through the ownership regime: members simultaneously hold the status of tenants and collective owners, securing long-term affordable housing in exchange for active involvement in governance. Rule violations are rare, a pattern consistent with well-functioning CPR systems with a strong normative framework. Finally, the statute fosters a high degree of internal democracy and perceived fairness by distributing electoral and dismissal rights across governance bodies, while assigning final authority to the general assembly, composed of all members. This study also allows for several other preliminary

conclusions.

First, the case material suggests that shared spaces play a fundamental role in the functioning of the cooperative system. They provide the physical settings in which different forms of wellbeing take place and operate as the central CPR whose everyday functioning depends on sustained cooperation. Importantly, the findings point to a circular relationship in which shared spaces enable wellbeing practices; these practices in turn increase the perceived value of shared spaces, which in turn motivates continued cooperation.

The common room and green areas clearly emerge as the most relevant spaces for wellbeing-related activities. The common room hosts a wide range of social wellbeing practices and functions as the primary arena for governance meetings, making it central to the operationalization of the statute and the continuous tinkering of rules in response to group needs. Its year-round flexibility and high demand continuously test negotiation processes, thereby reinforcing shared norms of reciprocity and perceived fairness. On the other hand, green areas—the central courtyard and boulevard—are particularly important for emotional and physical wellbeing. While the boulevard accommodates most physical activities, the courtyard—a semi-enclosed, semi-private space shaped by surrounding L-shaped and square buildings—primarily supports emotional wellbeing and stands out as the most valued place in the complex. It enables respondents' most valued activity—relaxation—and is also the main setting for spontaneous conversations lasting more than five minutes. To a lesser extent, green areas also host social activities, making them the only spaces where all three forms of wellbeing converge. During the COVID-19 pandemic, activities traditionally held in the common room, such as the choir, expanded into these areas, highlighting their role in community resilience. The versatility of the common room and courtyard as multi-use spaces was repeatedly emphasized and positively valued.

Taken together, these findings suggest that shared spaces function as collective resources whose value derives both from the wellbeing practices they enable and from their capacity to sustain cooperation, thereby operating as both drivers and outcomes of collective action.

Second, the analysis shows that the cooperative operates as a highly organized collective unit in which cooperation is structured in ways that make individual contributions difficult to disentangle. While tasks related to the management and maintenance of apartments and buildings are formally assigned through the statute, responsibility for shared spaces largely rests with cooperative members. Over time, new forms of internal organization have emerged through working groups that extend beyond conventional housing-related tasks and address a wide range of organizational, technical, environmental, and social issues. Notably, 96% of respondents reported having participated in at least one working group, many indicating involvement across all activities related to the maintenance and management of shared spaces. These initiatives emerge from within the group, indicating strong internal commitment to collective organization.

The green areas and the common room concentrate both the highest levels of cooperative engagement and the greatest diversity of maintenance practices. Regular gardening activities dominate in the green areas, while cleaning and tidying tasks prevail in the common room, ensuring the proper functioning of the spaces most critical to everyday wellbeing. Terraces and playgrounds follow, where cooperation tends to

be more reactive or incidental, such as renovation works or sand replacement. While the study sheds light on cooperative activities that sustain the usability and quality of shared resources over time, it does not address the formation and evolution of working groups, despite their central role in the success of the project. These findings point to the boundaries of the present analysis.

The study focuses on a single housing cooperative with a long-established culture of self-governance, a relatively homogeneous participant background, and a socially oriented architectural layout. These features constitute a best-case scenario, limiting the generalizability of the findings. Treating the statute as an enabling condition rather than an automatic guarantee of cooperation, future research could use larger and more diverse samples to examine how group composition (e.g., minimum number of cooperators) shapes the transition from a purely functional housing arrangement to a wellbeing-producing collective unit. Additionally, further studies should explore the role of scale and resource sufficiency, as well as how adaptive institutional responses address emerging social and spatial tensions. The case material suggests that the German housing cooperative statute may provide enabling conditions for the production of collective wellbeing in cooperative housing contexts. By institutionalizing cooperation for the common good, it enables a legally supported and socially embedded form of sustainable living.

These findings contribute to existing research on cooperative housing by shifting attention from the general social and material benefits of cooperatives to the mechanisms through which these outcomes are produced and sustained over time. In particular, the study highlights how the interaction between spatial configurations (shared spaces) and institutional arrangements (cooperative statute aligned with CPR principles) supports the continuous reproduction of wellbeing practices in everyday residential life. Rather than treating wellbeing as a by-product of cooperative housing, the analysis shows how it is actively maintained through ongoing forms of collective organization and spatial use.

To conclude, we point out the role of government as an enabler of this housing model. The long waiting lists for cooperative membership in Germany point to sustained demand for a model that generates wellbeing through multiple, interrelated pathways embedded in spatial and institutional arrangements in everyday residential life.

ACKNOWLEDGMENT

The authors wish to express their sincere gratitude to all members of the cooperative for their invaluable collaboration and engagement throughout the research process. We are particularly indebted to Barbara Schrader, Christine von Bargen, and Katharina Juhl for their exceptional support, insightful contributions, and sustained commitment.

REFERENCES

- [1] Gallup. (2021). Global Emotions. <https://www.gallup.com/analytics/352337/gallup-global-emotions-2021-report-pdf.aspx>.
- [2] Gallup. (2022). Global Emotions. https://img.lalr.co/cms/2022/06/29185719/2022-Gallup-Global-Emotions-Report-2022_compressed.pdf.
- [3] Gallup. (2025). State of the world's emotional health 2025: Connecting global peace, wellbeing and health. Gallup. Gallup PDF Report. https://www.gallup.com/analytics/349280/gallup-global-emotions-report.aspx?utm_source=chatgpt.com.
- [4] Lee, H., Calvin, K., Dasgupta, D., Krinner, G., et al. (2023). Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. In IPCC, Geneva, Switzerland, pp. 1-169.
- [5] Brandsen, T., Helderman, J.K. (2013). The conditions for successful co-production in housing: A case study of German housing cooperatives. In *New Public Governance, the Third Sector, and Co-Production*, pp. 169-191. <http://doi.org/10.4324/9780203152294-11>
- [6] Ng, S.L., Zhang, Y., Ng, K.H., Wong, H., Lee, J.W.Y. (2018). Living environment and quality of life in Hong Kong. *Asian Geographer*, 35(1): 35-51. <http://doi.org/10.1080/10225706.2017.1406863>
- [7] GdW Bundesverband deutscher Wohnungs- und Immobilienunternehmen e.V. (n.d.). Genossenschaften. <https://www.gdw.de/der-gdw/unternehmenssparten/genossenschaften/>.
- [8] Alday-Mondaca, C., Schiff, R. (2025). Cooperative housing: A Catalyst for health and wellbeing? A scoping review of English and Spanish literature (2004–2024). *Social Sciences & Humanities Open*, 12: 101995. <https://doi.org/10.1016/j.ssaho.2025.101995>
- [9] Reyes, A., Novoa, A.M., Borrell, C., Carrere, J., et al. (2025). Grant-of-use cooperative housing and its relation with health and wellbeing: A conceptual framework. *Cities*, 163: 106066. <https://doi.org/10.1016/j.cities.2025.106066>
- [10] Beck, A.F. (2020). What is co-housing? Developing a conceptual framework from the studies of Danish intergenerational co-housing. *Housing, Theory and Society*, 37(1): 40-64. <https://doi.org/10.1080/14036096.2019.1633398>
- [11] Jarvis, H. (2011). Saving space, sharing time: Integrated infrastructures of daily life in cohousing. *Environment and Planning A*, 43(3): 560-577. <https://doi.org/10.1068/a43296>
- [12] Williams, J. (2005). Designing neighbourhoods for social interaction: The case of cohousing. *Journal of Urban Design*, 10(2): 195-227. <https://doi.org/10.1080/13574800500086998>
- [13] Stavrides, S. (2016). *Common Space: The City as Commons*. Bloomsbury Publishing. <https://doi.org/10.5040/9781350219267>
- [14] Tummers, L. (2016). The re-emergence of self-managed co-housing in Europe: A critical review of co-housing research. *Urban Studies*, 53(10): 2023-2040. <https://doi.org/10.1177/0042098015586696>
- [15] Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. <http://doi.org/10.1017/CBO9780511807763>
- [16] Ostrom, E., Burger, J., Field, C.B., Norgaard, R.B., Policansky, D. (1999). Revisiting the commons: Local lessons, global challenges. *Science*, 284(5412): 278-282. <http://doi.org/10.1126/science.284.5412.278>
- [17] Ostrom, E. (2000). Collective action and the evolution of social norms. *Journal of Economic Perspectives*, 14(3):

- 137-158. <http://doi.org/10.1257/jep.14.3.137>
- [18] Rogers, D.S., Duraiappah, A.K., Antons, D.C., Munoz, P., Bai, X., Fragkias, M., Gutscher, H. (2012). A vision for human well-being: Transition to social sustainability. *Current Opinion in Environmental Sustainability*, 4(1): 61-73. <http://doi.org/10.1016/j.cosust.2012.01.013>
- [19] Helne, T., Hirvilammi, T. (2015). Wellbeing and sustainability: A relational approach. *Sustainable Development*, 23(3): 167-175. <http://doi.org/10.1002/sd.1581>
- [20] Costanza, R., Daly, L., Fioramonti, L., Giovannini, E., et al. (2016). Modelling and measuring sustainable wellbeing in connection with the UN sustainable development goals. *Ecological Economics*, 130: 350-355 <http://doi.org/10.1016/j.ecolecon.2016.07.009>
- [21] Göpel, M. (2016). The great mindshift: How a new economic paradigm and sustainability transformations go hand in hand. In *the Anthropocene*.
- [22] Stadtprojekte. (2001). Freie und Hansestadt Hamburg Stadtentwicklungsbehörde. <https://www.hamburg.de/resource/blob/185366/a6b409b80ee830e85cd14c9705059d18/broschuere-saarlandstrasse-pdf-data.pdf>.
- [23] Kollock, P. (1998). Social dilemmas: The anatomy of cooperation. *Annual Review of Sociology*, 24(1): 183-214. <http://doi.org/10.1146/annurev.soc.24.1.183>
- [24] Ostrom, E. (2008). Developing a method for analyzing institutional change. In *Alternative Institutional Structures*, pp. 66-94. <http://doi.org/10.4324/9780203894439.ch3>
- [25] Onwuegbuzie, A.J., Leech, N.L. (2006). Linking research questions to mixed methods data analysis procedures. *The Qualitative Report*, 11(3): 474-498. <http://doi.org/10.46743/2160-3715/2006.1663>
- [26] Creswell, J.W., Clark, V.L.P. (2017). *Designing and Conducting Mixed Methods Research*. Sage Publications.
- [27] Bonaiuto, M., Fornara, F., Bonnes, M. (2003). Indexes of perceived residential environment quality and neighbourhood attachment in urban environments: A confirmation study on the city of Rome. *Landscape and Urban Planning*, 65(1-2): 41-52. [http://doi.org/10.1016/S0169-2046\(02\)00236-0](http://doi.org/10.1016/S0169-2046(02)00236-0)
- [28] SCBS. (2000). Social Capital Benchmark Survey, 2000. <https://ropercenter.cornell.edu/misc/usmisc2000-soccap/usmisc2000-soccap.PDF>.
- [29] Buckner, J.C. (1988). The development of an instrument to measure neighborhood cohesion. *American Journal of Community Psychology*, 16(6): 771-791. <http://doi.org/10.1007/BF00930892>
- [30] Nasar, J.L., Julian, D.A. (1995). The psychological sense of community in the neighborhood. *Journal of the American Planning Association*, 61(2): 178-184. <http://doi.org/10.1080/01944369508975631>
- [31] Gale, N.K., Heath, G., Cameron, E., Rashid, S., Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13(1): 117. <https://doi.org/10.1186/1471-2288-13-117>
- [32] Haffner, M., Brunner, D. (2014). *German Cooperatives: Property Right Hybrids with Strong Tenant Security*. Delft: Delft University of Technology.
- [33] Gesetz über die soziale Wohnraumförderung (Social Housing Promotion Law). <https://www.gesetze-im-internet.de/wofg/index.html>.
- [34] GenG. (2024). *Genossenschaftsgesetz (Cooperative Societies Act)*. <https://dejure.org/gesetze/GenG>.