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Community resilience through bottom–up participation: when civil society drives urban transformation processes

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Abstract In recent years, bottom–up civil society initiatives have advanced urban transformation processes in Berlin. Following previous research suggesting that bottom–up participation could have a positive impact on community resilience (CR), we analyse the impact of engagement on Berlin–based civil society initiatives. Whilst a positive effect on resilience can be found, we identify governance processes that would be necessary to enable the full potential of bottom–up participation for CR. Resilience, understood as the capacity of a community to thrive in times of change and uncertainty, is becoming increasingly important for the functioning of (urban) communities; hence, finding ways of strengthening it is deemed necessary.

Introduction and context

Nowadays, more people than ever live in urban areas. Regarding the impacts of climate change, cities are increasingly challenged to become more sustainable and resilient (OECD and European Commission, 2020, pp. 16 and 160). Looking at the potential of civil society engagement and the need for community resilience (CR) in urban spaces, this study seeks to elaborate on the link between the two by assessing CR of individuals engaged in a

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network of civil society initiatives. We do so by conceptualising an indicator–based assessment framework of CR which we operationalise through surveys and interviews with civil society initiatives. We contextualise and discuss these findings to evaluate the impact of civil society engagement on CR. *Could an engaged civil society help foster the transformation of cities by increasing the resilience of its communities?*

Urban transformations require changes in the use of public space, mobility behaviour, and infrastructure. The city of Barcelona began tackling this issue by creating *Superblocks*, an urban planning concept aimed at prohibiting through-traffic in living quarters. It was meant to re-distribute public space, reduce paved surfaces and the amount of cars in public space, and to increase its liveability (de Barcelona, 2016). Although the city of Berlin passed a mobility law in 2018, it has not yet led to its envisioned transformative changes. Whilst promises had been made by governing coalitions, the topic remains heavily debated (Traxler and Wegrich, 2023). This growing frustration has led to a civil society movement demanding transformations of their living quarters through *Kiezblocks*—a concept based on Barcelona's *Superblocks.* The movement, initiated by a local non-governmental organization with a history of advancing mobility transitions in Berlin, has gained support from many citizens and has spawned over sixty-five citizen initiatives.

Whilst the results of these efforts can be assessed in terms of policy implementation, research has shown that the effects of participation often reach beyond the policy realm. Political activation, agency, and awareness are just some of the effects that participation may have on citizens (Lilleker and Koc-Michalska, 2019). First studies demonstrate that CR can be fostered through bottom–up participation, whilst certain levels of CR enable bottom–up engagement (Arvanitis et al., 2023). However, to better understand this interrelation, a common understanding of resilience across discourses and ways to assess and measure resilience are needed (ibid.). In this paper, we apply a multi-dimensional framework to understand and assess CR and its dynamics.

CR is often operationalised focusing on disasters rather than change and uncertainty. Furthermore, it is often about the factors that communities should be resilient *against*, rather than what could strengthen resilience. However, under conditions of polycrisis, resilience must primarily enable communities to thrive in times of change and uncertainty so that stressors do not become crises (Hoyer et al., 2023). Therefore, we suggest focusing on civil society engagement as a form of bottom–up participation to strengthen CR.

Resilience assessment and the role of civil society for transformation

Community resilience—current debates

The literature on resilience has gone through multiple phases since Holling established the concept of socio-ecological resilience in 1973 as 'the persistence of systems and their ability to absorb change and disturbance and still maintain the same relationships between populations and state variables' (Holling, 1973, p. 14). This natural science-based understanding shifted with the notion of 'adaptive cycles' (Keck and Sakdapolrak, 2013), where the adaptive capacity of a system when faced with danger and adversity becomes central. The adaptive capacity of a socio-ecological system describes its ability to learn, adjust its responses, and evolve within the current stability domain (Folke et al., 2010). This understanding remains popular today, but has evolved into 'resilience as transformability' (Folke et al., 2010; Keck and Sakdapolrak, 2013). Transformability describes 'the capacity to transform the stability landscape itself in order to become a different kind of system [...] when ecological, economic and social structures make the existing system untenable' (Folke et al., 2010, p. 3). These three foci of the evolution of the resilience concept also mark its three main components: persistence, adaptability, and transformability.

Resilience may be understood as the capacity of a system to continue functioning when faced with external stress or disturbance (Adger, 2000). This focus on 'bouncing back' has, however, been criticised repeatedly (Magis, 2010; Beilin and Wilkinson, 2015; Revell and Dinnie, 2020). Social realities are characterised by change; therefore, resilience means both being able to deal with external shocks and thriving in an environment characterised by change and uncertainty (Magis, 2010). Hence, we can also think of general resilience as 'bouncing forward', which can be helpful when considering resilience in a potential polycrisis setting, which describes a macro-crisis of interconnected and interacting threats of an environmental, social, political, as well as economic nature (Hoyer et al., 2023). Therefore, the focus is not on a specific threat but on the potential of multiple threats and includes internal system dynamics (Brown, 2014). Dealing with these dynamics requires both adaptive and transformative capacities (Keck and Sakdapolrak, 2013).

The notion of capacities opens another divide within the resilience literature—the actor—versus the system-centred approach. Traditionally, (social) resilience is understood as an attribute of a system (Adger, 2000; Elmqvist et al., 2019). Whilst this perspective remains common, the focus on the system has some blind spots towards power, inequality, and agency within these structures (Bahadur and Tanner, 2014; Brown, 2014; Meerow and

Newell, 2019). Increasingly, a more actor-centred approach is used. It considers power asymmetries and focuses on the agency of human actors (Meerow and Newell, 2019) as well as capacities, agency, and self-organisation of actors within a social system (Obrist et al., 2010; Berkes and Ross, 2013). In this understanding, social resilience can increase through empowerment and by building social capital (Steiner et al., 2016). CR is understood as a subfield of social resilience, specifically fostering community empowerment (Matarrita-Cascante et al., 2017).

This development of the social resilience concept shows a growing influence of psychological aspects, which become increasingly important when addressing community empowerment in an actor-centred approach. Development psychology literature has long taken interest in the factors causing certain people to handle significant challenges in their lives better than others (Berkes and Ross, 2013). This departure from a strictly deficit-based orientation to an increased focus on models considering strengths and competencies has made it possible to pay more attention to developing resilience (Southwick et al., 2014).

CR as a concept is also related to community development. Whilst community development can be understood as a practice to foster solidarity, agency, empowerment, and social capital (Bhattacharyya, 2004; Dale and Newman, 2006), CR itself is not a practice but a set of interrelated community dynamics that help define indicators and frameworks community development practitioners should work towards (Zautra et al., 2008). Both approaches have a an empowerment and capacity enhancing focus in common, something that can also be criticised if implemented as an excuse to roll back social welfare or individualise social problems (MacLeod and Emejulu, 2014).

In this paper, CR is defined as a dynamic framework that changes over time as it is shaped by altering conditions and processes communities are facing (Obrist et al., 2010; Quinlan et al., 2016). Understood proactively, resilience is also about developing the capacity to draw on diverse pools of community resources to thrive in an environment characterised by change and uncertainty (Magis, 2010).

The resilience assessment framework

We offer a previously developed framework of six interdependent dimensions enabling Kirby, 2024 CR forthcoming). Each dimension contains different categories, and each category contains a set of indicators. These dimensions can be affected by both internal and external dynamics. The positive impact of engagement on resilience has been touched upon (Arvanitis et al., 2023) but has not been extensively analysed in the

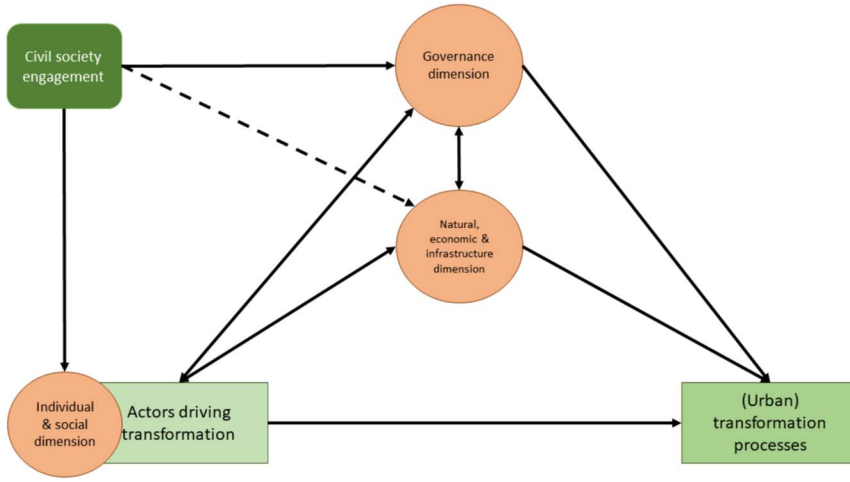

Figure 1 Dimensions of the indicator framework, authors' own elaboration.

literature and is therefore the focus of this indicator framework (see Figure 1). This study focuses only on the impact on the individual and social dimensions.

The **individual dimension** (Table 1) is an important foundation of CR and captures the human capital of actors within the community. It is primarily characterised by coping, adaptive, and transformative capacities.

The **social dimension** (Table 2) focuses on the community as a collective and is divided into the categories social structure, social capital and social mechanisms (Saja et al., 2018). Social structure describes a community's composition; social capital its networks; and social mechanisms *how* a community functions.

Civil society engagement as bottom–up participation

Participation is often implicitly understood as a top–down phenomenon where politicians or administrative actors call citizens or stakeholders to provide input on a particular issue in 'invited spaces' (Gaventa, 2006). Decision-makers thus determine the agenda and boundaries of participation: who is asked to participate in what and how the input is elicited and integrated into the decision. In community, development participation is often appreciated as an enabler for change and empowerment. On the other hand, it is criticised if applied to legitimise already made decisions, hide power inequalities, or when participating citizens are not given an equal seat at the table (Eversole, 2012).

Table 1 Individual dimension of the assessment framework

Individual dimension		
Coping capacities	Sense of security	Cinderby et al., 2016; Norris et al., 2008; Obrist et al., 2010; Ribeiro et al., 2019
	Sense of belonging	Berkes and Ross, 2013; Steiner et al., 2016
	Positive future outlook	Berkes and Ross, 2013; Steiner et al., 2016
	Well-being	Cutter et al., 2008; Jacinto et al., 2020; Khalili et al., 2018; Revell and Dinnie, 2020
	Quality of life	Cutter et al., 2008
	Capacity to access resources	Berkes and Ross, 2013; Maclean et al., 2014; Magis, 2010; Obrist et al., 2010
Adaptive capacities	Flexibility	Ribeiro et al., 2019
	Acceptance of uncertainty and change	Bahadur et al., 2013; Berkes and Ross, 2013
Transformative capacities	Learning and experimentation	Bahadur et al., 2013; Berkes and Ross, 2013; Hölscher et al., 2019; Maclean et al., 2014; Quinlan et al., 2016; Wolfram, 2016
	Empowerment	Wolfram, 2016
	Reflexivity and awareness of system dynamics	Hölscher et al., 2019; Wolfram, 2016
	Self-organisation	Berkes and Ross, 2013; Revell and Dinnie, 2020
	Self-efficacy	Berkes and Ross, 2013; Revell and Dinnie, 2020
	Agency	Berkes and Ross, 2013; Revell and Dinnie, 2020

In participation understood as a bottom–up process citizens determine agenda and boundaries of participation, creating 'claimed spaces' for participation (Gaventa, 2006) where citizens are not invited to participate but choose to, when, where, and how they see fit. Participation processes may also be of hybrid nature. When bottom–up movements generate enough traction around an issue, political decision-makers may take it up and establish a related process—sometimes in collaboration with the bottom–up movement itself (i.e. Berlin's Climate Citizen Assembly).

Some forms of bottom–up participation are foreseen in legislation. For example, in Berlin a citizen motion supported by 1000 citizens from a given municipality can be submitted to the municipal parliament and is then handled in a similar manner as motions by municipal parliamentarians (BezVwG BE §44). Thereby, citizens determine the agenda and thematic boundaries for the process. Contrary to mass-participation, civil society initiatives are a self-selected group of citizens encouraging parliament to consider issues that elected parliamentarians may not be interested in. Thus, initiatives are a way to put an issue on the policy agenda from *outside* parliament and can affect the power relations between citizens and parliamentarians through their civil society engagement (Landemore, 2020). Via *democracy driven governance* civil society movements go beyond ad-

Table 2 Social dimension of the assessment framework

Social dimension		
Social structure	Diverse population composition	Bahadur et al., 2013; Jacinto et al., 2020; Quinlan et al., 2016; Ribeiro et al., 2019; Saja et al., 2018
	Social equity	Bahadur et al., 2013; Saja et al., 2018
	Access to basic needs and services	Maclean et al., 2014
Social capital	Informal safety nets and support	Berkes and Ross, 2013; Jacinto et al., 2020
	Close relationships with others (bonding capital)	Aldrich and Meyer, 2015; Copeland et al., 2020; Revell and Dinnie, 2020
	Social networks and volunteerism	Berkes and Ross, 2013; Cinderby et al., 2016; Cutter et al., 2008; Maclean et al., 2014
	Interconnectedness between social groups (bridging capital)	Aldrich and Meyer, 2015; Berkes and Ross, 2013; Copeland et al., 2020; Quinlan et al., 2016; Revell and Dinnie, 2020; Ribeiro and Goncalves, 2019
	Trust in community leadership (linking capital)	Aldrich and Meyer, 2015
	Sense of community	Cutter et al., 2008; Steiner et al., 2016
Social mechanisms of community	Collaboration and experimentation	Quinlan et al., 2016; Saja et al., 2018
	Engagement and inclusion of local knowledge	Bahadur et al., 2013; Quinlan et al., 2016; Saja et al., 2018
	Inclusiveness	Berkes and Ross, 2013; Revell and Dinnie, 2020; Ribeiro and Goncalves, 2019; Saja et al., 2018
	Competence	Cutter et al., 2008; Jacinto et al., 2020; Maclean et al., 2014; Norris et al., 2008
	Collective action and goals	Magis, 2010; Saja et al., 2018
	Pride and attachment	Revell and Dinnie, 2020; Saja et al., 2018; Wolfram, 2016
	Innovation creation and transmission	Hölscher et al., 2019; Ribeiro and Goncalves, 2019; Wolfram, 2016

hoc protest and embed participatory practices in established institutions, ultimately working towards creating empowered participatory spaces for civil society actors (Bua and Bussu, 2021).

Methodology

We conducted our study using a mixed-methods approach. For quantitative data, we generated a 52-item survey based on the indicator framework (tables above). These were either Likert-scale–based statements or questions requiring simple yes/no answers. The survey was conducted via

LimeSurvey and emailed to 64 Berlin–based Kiezblock initiatives[1]. It was also distributed via social media channels and messenger services to reach a maximum of initiative members. Within four weeks the survey was opened 115 times and completed by 81 participants. We analysed the responses using descriptive statistical analysis. For each item, corresponding to a resilience indicator, we calculated the median, mean, and frequencies of occurrence. Participants could respond to the items on a 7-point Likert scale, where −3 corresponded to 'Do not agree at all' and + 3 to 'Fully agree'.

Additionally, we conducted qualitative interviews with four members from district administrations and nine members of Kiezblock initiatives. These interviews about citizen participation and potential for collaboration were qualitatively analysed according to the indicator framework. This mixed-methods data triangulation enables us to get a deeper understanding of certain effects and dynamics by contextualising and verifying the survey findings.

Community resilience assessment

The following analysis provides an insight into the self-assessed resilience of initiatives' members in the individual and social dimensions.

Individual dimension

Mostly, agreement on indicators for **coping capacities** is high (Table 3). Items focusing on the effect of engagement show marginally higher agreement than general items. Most participants perceive their engagement to be rewarding and to substantially increase their sense of belonging to their neighbourhood. Most of them feel safe and at home in their neighbourhood and are satisfied with their lives. Most respondents seem quite engaged in the initiative and have the capacity to access resources like being in touch with local administrations.

The interviews with members from the initiatives paint a slightly more varied picture. There is criticism and frustration about problems with volunteer-based structures and some hostility by other residents due to engagement.

> *'I had to deal with bad hate speech, in my private life, in my mailbox. [. . .]. I didn't really know what was happening, but since then I'm always a bit scared to meet these people again and get harassed.' (Initiative member)*

Despite these experiences the interviewees continued with their engagement. These experiences vary depending on the specific initiative, as does

1 These were all Kiezblock initiatives in Berlin at that time (January 2023).

Table 3 Likert-scale survey responses on individual coping capacities

Indicator	Item	Mean
Sense of security	'I feel safe in my neighbourhood'	1.44
Sense of belonging	'I feel at home in my neighbourhood'	2.1
	'Through my engagement I feel more strongly connected to my neighbourhood'	1.9
Positive outlook	'I feel my neighbourhood is developing into the right direction'	0.7
Well-being	'My engagement is rewarding'	1.8
	'My engagement is (too) stressful'	−0.4
Quality of life	'I am happy with my life'	0.8

Table 4 Likert-scale survey responses on individual adaptive capacities

Indicator	Item	Mean
Flexibility	'It is easy for me to accept change'	1.5
Acceptance of change and uncertainty	'Uncertainty worries me'	−0.3

the outlook for their neighbourhood, some being optimistic about it whilst others were frustrated due to lacking implementation. All interviewees had engaged with their local administrations, sometimes on a regular basis.

Seventy-seven percent of respondents state that they can easily accept change and one-third state that uncertainty worried them (Table 4). This may be interpreted as a rather high capacity to adapt.

Most items on **transformative capacities** focus on the effects of engagement in the initiative (Table 5). On average respondents agree with the items. However, the items on leadership skills are the slight outliers contributing to a lower score. Whilst most respondents state that engagement in the initiative requires a lot of self-organisation, many also state not to have learned to take on organisational responsibilities. Respondents feel empowered through their work and perceive themselves as contributing to the greater good. Many better understand how administrations work; however, not everyone feels more understanding towards the administration when implementation takes longer.

Similar tendencies are voiced in the interviews. Whilst most interviewees gained insights into work and challenges of public administration, this does not necessarily increase their understanding for implementation processes perceived as being slow—or lacking. Additionally, the interviewees believe that the apparent lack of resources and capacity on the part of the administration should lead to more empowerment of civil society.

Table 5 Likert-scale survey responses on individual transformative capacities

Indicator	Item	Mean
Empowerment	'Through my engagement I am making an important contribution'	1.4
Reflexivity	'I am more understanding towards the administration if they take more time'	0.2
Awareness of system dynamics	'I have more knowledge about administrative processes than before'	1.4
Self-organisation	'The initiative requires self-organisation'	1.8
	'The initiative fosters self-organisation'	0.5
Self-efficacy	'I can influence the direction our neighbourhood is developing towards'	1.1
	'Through my engagement I am making a contribution to the greater good for all'	2
Leadership skills	'I have learned to carry organisational responsibilities'	−0.24
	'I didn't have a leading role in my initiative'	−0.17

> *'I think what would be nice is if there was a catalogue of temporary measures [. . .] where the administration says "Hey, this plant pot, you can use that as street furniture for a week under these and these conditions"—so we can find compromises how things could be implemented more ad hoc.' (Initiative member)*

This indicates that some members of the initiatives envisage actual empowerment in terms of community control, but that has not been put into practice, since the administration holds all shaping power. We can assume that participants felt empowered in terms of agenda setting, but less so in terms of implementation.

Social dimension

Socio-economic indicators provide insight into the community's population composition and thereby the **social structure** of the initiatives. Slightly more males (55.6 percent) than females (40.7 percent) responded to the survey. Almost 50 percent live in 3- to 5-person households (Berlin: 19.2 percent), almost 20 percent are single households (Berlin: 52.9 percent), and one-third of respondents live in 2-person households (Berlin: 27.8 percent; Amt für Statistik Berlin Brandenburg, 2022). 35.9 percent of respondents have a joint net household income of 3.000–5.000€, 24.4 percent a higher net household-income (Berlin average: 3.145€; Amt für Statistik Berlin Brandenburg, 2020). 70.4 percent hold a university degree (Germany: 18.5 percent), an additional 13.6 percent a doctoral degree (Germany: 1.2 percent; Destatis, 2019). 13.6 percent are non-ethnic Germans, i.e. either they, their parents or their grandparents were born outside of Germany (Berlin: 38.6 percent (Amt für Statistik Berlin Brandenburg, 2021)). These responses suggest that members of the Kiezblock initiatives are not representative of Berlin or Germany. They are disproportionately academic, slightly wealthier, less (ethnically) diverse and live in larger households than the average Berlin citizen.

Table 6 Likert-scale survey responses on social capital

Indicator	Item	Mean
Informal safety net	'I have new emergency contacts through my engagement in the initiative'	−0.07
	'I have emergency contacts who live close by'	1,4
Close relationships with others (bonding capital)	'I DID NOT make new friends through my engagement in the initiative'	−0.65
	'I have close friends in my neighbourhood'	0.89
Social networks (bonding capital)	'I struggle to make new contacts'	−0.86
	'I am well connected in my neighbourhood'	1.14
	'I have more contacts in my neighbourhood now through my engagement in the initiative'	1.89
Interconnectedness between social groups (bridging capital)	'There is little exchange between social groups in our neighbourhood'	0.49
	'We are in exchange with other initiatives'	0.7
Trust in community leadership (linking capital)	'I am optimistic concerning the implementation of our demands'	0.78
	'Our relationship with the local administration is good'	0.54
Sense of community	'I like my neighbourhood because of the people who live here'	1.39
	'My neighbourhood feels like a community'	0.05

Most respondents live in areas with good access to basic needs and services. Most can reach their next supermarket, doctor, or pharmacy within a five-to-fifteen-minute walk or bike ride. Only very few are dependent on public transport for getting their children to school and only few need more than fifteen minutes for doing so. Most commute distances beyond fifteen minutes to get to work by bike or public transport. Based on these findings we can assume that respondents belong to a more privileged social group with resources and capacities to engage voluntarily, which other social groups might not have. Our interviews confirm these findings. The social structure of the Kiezblock initiatives is generally not representative of the neighbourhoods they live in, which administrators and members of the initiative acknowledge by addressing the challenge to find new members outside of their 'bubble'.

> *'It is still difficult to expand our bubble [in the initiative]. We have realised that this is really difficult and we wonder: [. . .] How do we reach people who haven't taken notice of us?' (Initiative member)*

In terms of **social capital** most respondents seem to have a good informal safety net in their neighbourhood regardless of their engagement (Table 6). They also have high bonding social capital, are well connected within their neighbourhood, and connect with others rather easily. Their engagement

positively impacted these social networks. 42.5 percent of survey respondents describe their neighbourhood as a community, and 78 percent state that they would like to continue living in their neighbourhood because they feel connected to the people there. However, interconnectedness between social groups within the neighbourhood is often stated to be quite low. Regarding linking social capital most survey respondents seem to trust their community leadership: 68 percent are somewhat optimistic that their demands will be implemented and 58 percent of respondents describe their relationship with the administration as rather good.

The interviews confirm the lack of interconnectedness between social groups, partly due to the lack of diversity within the group. To an extent this is explained by the voluntary structures of the initiative. Voluntary engagement requires resources that not everyone may have. Additionally, some interviewees perceive the administration as often overwhelmed and too slow in implementation.

> *'There is this clerk who was completely overwhelmed, who was called a lot. I think that really knocked his socks off: he, a civil servant, being in contact with the outside world that was complaining about his orders.' (Initiative member)*

Whilst some do not trust that administrations will implement Kiezblocks at all, others also describe the extent of support they received from administrations in the past. Based on the interviews we may assume that local administrations behave differently towards the initiatives depending on their local district.

The items in the category **social mechanisms** are all related to the respondents' engagement in the initiative (Table 7). There is a great variance in responses in this category, scoring lowest overall. This can be broken up when looking at the individual indicators. Indicators on community collaboration and competence are perceived as very positive and agreed with. They are followed by learning and experimentation, and community pride and attachment. Community inclusiveness scores lower due to the perceived lack of the initiatives' representativeness and opponents within the neighbourhood. Fifty-four percent of respondents state that some residents in the neighbourhood oppose the ideas of the initiative. Only 26.9 percent believe that the initiative is somewhat representative of the neighbourhood. Inclusion of community knowledge and innovation creation and transmission both have a negative mean score. Since both focus on the implementation of the initiatives' proposed changes, this result is interesting. It shows that implementation of change seems to be the weakest point negatively affecting the initiatives' CR.

The perceived lack of representation of the neighbourhood is confirmed through the interviews.

Table 7 Likert-scale survey responses on social mechanisms

Indicator	Item	Mean
Community collaboration	'Most actions in the initiative were carried out alone'	−0.51
	'Important decisions within the initiative are taken together'	2.15
Learning and experimentation	'We tried a lot of new things in the initiative'	0.9
Inclusion community knowledge	'The local administration tries to include everyone in the neighbourhood when deciding on ideas'	−0.11
	'So far hardly any ideas/Kiezblocks have been implemented'	0.74
Community inclusiveness	'Some neighbours are strictly against Kiezblocks'	0.3
	'Our initiative is NOT representative of our neighbourhood'	0.24
	'Our initiative tries to get everyone in the neighbourhood involved'	1.53
	'Most neighbours support the work of our initiative'	1.1
Community competence	'In our initiative we know about facts and figures like the Berlin atlas for environmental justice'	1.56
Collective action and community goals	'People in our initiative have differing goals'	0.58
	'We have already achieved a lot together'	0.8
Community pride and attachment	'The initiative is a reason for me to continue living in my neighbourhood'	0.5
	'I am proud of what we have achieved so far'	1.19
Innovation creation and transmission	'Some traffic calming measures have been implemented in our neighbourhood'	0.25
	'We are in contact with other initiatives in the city'	−0.49
	'Implementation of a Kiezblock in our neighbourhood has begun/been finalised'	−1.43

> *'And what we also realised is, that the Kiezblock initiatives only represent a fraction of the affected citizens in the living quarter. [. . .] It is our task as the local district administration to not only represent the interests of these eight people.' (Representative local district administration)*

They also confirm that lack of implementation is a challenge—the political decision to implement Kiezblock measures on the one hand and actual implementation through the administration on the other hand is the most frustrating aspect of their engagement.

Discussion

According to the framework, the community of Kiezblock initiatives exhibits high resilience. Individuals' civil society engagement within the initiatives strengthens resilience, although CR does not depend on it. More specifically, we can derive three main insights about the impact of civic engagement on CR.

First, the results demonstrate that engagement improves the performance on many indicators for CR. These effects do not rely on response from other actors but relate to the experiential aspects of taking part in a Kiezblock initiative and the tasks and relationships inherent in that process. Respondents feel an increased sense of belonging to their neighbourhood and describe their engagement as rewarding as it contributes to the greater good, indicating positive effects on coping capacities. Engagement also positively affects their social *bonding capital* since people found new friends through the initiative and expanded their social networks. These are likely to be strengthened regardless of contextual factors, such as success of the initiative.

Second, other indicators are not positively influenced by civic engagement. These are most clearly accounted for in the community's social structure and interconnectedness with other social groups. As our analysis of the community's social structure showed, those people that participate in initiatives often come from a more privileged and educated background, equipping them with resources that enable resilience and participation. Engagement positively impacts internal interconnectedness within the Kiezblock initiative, but often does not reach groups outside of the community. The Kiezblock initiatives do not represent the diversity of their neighbourhoods. This might increase bonding within the group, but lacks bridging social capital, thus making the initiatives more vulnerable to external criticism and prone to blind spots on side of the initiatives in terms of being inclusive and open to others, and in terms of reproduction of societal power hierarchies. Citizens might not be expected to counteract this dynamic, due to limited resources in voluntary structures: a reason why CR should not be made dependent on them. Therefore, representative participation *is* expected of governing actors to ensure that invited spaces of participation enable diversity and inclusion—a process that would also demonstrate the interdependency of the governance dimension and the social dimension in our framework. This would result in the hybrid formats of participatory processes mentioned earlier in this paper. In this way, bottom–up participation could positively influence resilience on a broader scale when responded to with top–down participatory measures.

Third, many indicators rely on contingencies to positively impact CR, especially regarding transformative capacities, social capital, and social mechanisms. As for transformative capacities, most respondents self-organised in their initiative but feel that this did not foster their *ability* to self-organise. Additionally, whilst they learned to understand administrative processes better, this did not lead to a greater understanding of the implementation, which they perceive as slow, but it did foster trust that the

administration would implement their demands. Simultaneously, although none of their demands had been implemented yet, respondents had a sense of self-efficacy. These seemingly contradictory responses indicate that they somewhat trust the administration to implement the suggestions, but this advance of trust is fragile. It may be withdrawn if the expected implementation by the public authorities is not completed or delayed. The increase in self-efficacy does not undermine the trust in authorities but makes it dependent on the willingness of those in power to respond constructively to the suggestions. Lack of implementation could increase frustration. Additionally, successful implementation of demanded measures could increase the respondents' perceived sense of ability to self-organise, since their self-organised activities would have been externally validated by the success of the initiative. It also shows that self-organised structures should not be an excuse for the state to outsource its duties, but that it must take responsibility for them. Based on this contingency one may also take a closer look at the potential of co-creative or collaborative governance—a process where civil society is included in the governance of urban spaces and one that would not only empower civil society but could also be a way of implementing demands in times where municipal administrations lack the necessary resources for doing so. Such collaborations could also be a way of counteracting the power inequalities at play in bottom–up participatory processes: when citizens and governing actors work in partnership power asymmetries need to be balanced, at least to an extent, and some form of community control given to engaged participants. This is, however, a difficult balancing act: the lack of representativeness in the initiatives needs to be addressed too and poses the question whether enabling community control could be a legitimate procedure.

All these potential outcomes require a process-oriented framework for effective analyses. They demonstrate that changes can continually influence different indicators and dimensions. Therefore, we can derive some main findings from applying the framework. Overall, the community of Kiezblock initiatives started their activities with high resilience. Their engagement affected different dimensions of CR to varying extents: whilst the feeling of contributing to the greater good and increases in bonding capital are likely to come about without specific responses to their engagement, other dimensions depend on the responsiveness of government actors. By handing in motions to their local parliaments, they put trust into governing actors to adequately respond to their demands. A possible recommendation to government actors is therefore that initiatives need to matter in policy discussions if the goal is to positively influence CR. This amounts, at a minimum, to taking engaged citizens seriously, and at most, to integrating their work with policy implementation, or collaborating, if goals are aligned.

By applying our indicator assessment framework of CR, we can demonstrate that CR is a dynamic process with strong interdependencies between its dimensions. Even when the level of civic engagement remains the same, reactions in other dimensions (as in the governance or infrastructure dimension) should be expected to continuously trigger changes in the individual and social dimension.

Conclusion

The impact of civic engagement on CR is influenced by various factors. Thus, it needs to be presented in a framework that allows space for these dynamics. To elaborate on possible reinforcement factors of CR, we conceptualised and operationalised an indicator-based assessment framework. Assuming that civic engagement can strengthen CR, we created a framework focussing on reinforcement factors rather than specific threats. This framework consists of six dimensions of CR, each divided into categories and corresponding indicators.

We were able to derive some main findings for whether an engaged civil society could help foster the transformation of cities by increasing the resilience of its communities. Generally, members of the Kiezblock initiatives seemed to demonstrate high levels of resilience. Yet, their civic engagement seemed to directly reinforce individual coping capacities and bonding social capital even further. However, other indicators seem to rely on the responsiveness of government actors to be reinforced in the long run. This seems to be especially true for individual transformative capacities, other forms of social capital and social mechanisms. Responsiveness would imply two things: for governing bodies to both respond by creating participatory processes to include a more representative group of people, and by constructively engaging with the demands and recommendations of civil society initiatives. To conclude, applying this framework has enabled us to grasp the dynamics and constant flow influencing resilience dimensions by using specific yet adaptable indicators. For future research, the same should be done with the other four dimensions to get a more complete picture of the dynamics of civic engagement and CR.

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Data availability

The data that support the findings of this study, beyond the data provided in the article, are available from the corresponding author, Nicolina Kirby, upon request.

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