

POLICY AND PLANNING TOOLS FOR URBAN GREEN JUSTICE

Fighting displacement and gentrification and improving accessibility and inclusiveness to green amenities

April 2021







Barcelona







Executive Summary

This report presents a summary and analysis of tools and policies that fight displacement and gentrification, while also improving accessibility and inclusiveness of green amenities and green spaces in urban contexts. This publication is one of a series of reports produced as part of the GreenLULUS ERC-funded project, a five-year project funded by the European Research Council which examines how greening has impacted 40 Western European, Canadian, and US cities over the past 25 years.

This report provides a library of 50 tools and policies used in many different contexts in the Global North (United States, Canada, and Western Europe) to promote housing stability and affordability, while increasing the presence and accessibility of green public space in the urban fabric. Furthermore, this report contributes a novel comparative analysis through place-based simulations that illuminate best practices and implementation methods to achieve green equitable development in both the North American and European context. In sum, we argue that the policy and planning path toward urban green justice lies in finding the right mix of anti-displacement and equitable green development tools to respond to the specific issues of displacement, gentrification, and inclusivity in each city.

We hope the following toolsets will be useful to urban change agents in critically considering which tools and policy approaches may preserve the rich cultural value of neighborhoods, challenge residential displacement pressures, and create more urban green space that is accessible and inclusive to socially vulnerable residents. The recommendations made here are meant to be a starting point for inspiring policymakers, planners, and community activists in cities across the world to take action and embrace the right to the green city as a goal that can and should be extended to all residents.

Report Highlights

- Review of current policy and regulation approaches for antidisplacement and anti-gentrification as well as community environmental mobilization
- In-depth examination of 50 tools and regulations available to planners and policy-implementors to support housing equity (30 tools) and just and inclusive green development (20 tools)
- Analysis of tool implementation through imagined simulation of city characteristics and profile

Foreword

In large cities worldwide, urban greening can address socio-environmental and health challenges as well as harness widespread benefits for citizens, industries, and investors, all the while protecting existing urban ecosystems, environmentally- or climate- sensitive areas, and built infrastructure. In the US alone, the examples that come to mind are the BeltLine green ring in Atlanta, the Rose Kennedy Greenway in Boston, the Blue Greenway in San Francisco, the Trinity River Corridor redevelopment in Dallas, or the Portland Riverbanks Project for park restoration or creation. In Europe, this greening is illustrated by Lyon's Riverbanks restoration, the Superblock program in Barcelona, or the Liberties Greening Strategy in Dublin. This clean-up, restoration, and/or development of new green infrastructure is often underpinned by a large repurposing of a whole area and accompanied by green branding tools, as part of a vision for the new, livable, and healthy green city of the 21st century. However, even if green practitioners and managers have the best social intentions, this growing urban greening orthodoxy leaves aside urban tensions, contradictions, and trade-offs between different social groups, including the inequities produced by those projects. Often, processes of such green gentrification, environmental exclusion, and multiple types of displacement are left overlooked or under-addressed, as our research demonstrates. With this report, we offer examples of policies, planning mechanisms, and financial instruments that can provide responses to those negative social impacts or manifestations through an analysis of (a) 30 anti-displacement as well as (b) 20 just and inclusive greening tools. This work draws on four years of collective and collaborative research within the Barcelona Lab for Urban Environmental Justice and Sustainability, funded by a variety of EU projects and made possible by more than 20 researchers whose efforts contribute to a novel, rigorous, and comprehensive analysis of alternatives for urban green justice.

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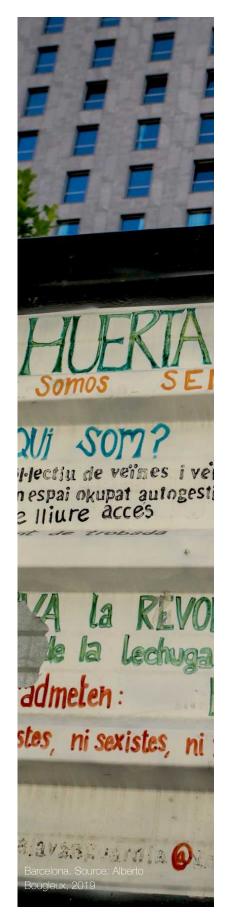
Support

This report was supported by funding from the ERC Starting Grant <u>GreenLULUs</u> (2016-2021) (GA678034) and by the <u>Naturvation</u> (GA730243) and <u>UrbanA</u> (GA 822357) EU projects. It also contributes to the Maria de Maetzu Unit of Excellence grant (CEX2019-000940-M) at the Institute for Environmental Science and Technology (ICTA) within the Universitat Autònoma de Barcelona (UAB). Finally, this report received support from the Hospital del Mar Medical Research Institute (IMIM) and from the Institució Catalana de Recerca i Estudis Avancats (ICREA) (for Isabelle Anguelovski).

Co-sponsorship

This report is also co-sponsored by ICLEI- Local Governments for Sustainability

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Part 1. Introduction

Many planners and government officials recognize the value of urban green space for its role in placemaking as well as its benefits to public health, public wellbeing, and overall culture. As a result, urban actors have turned to greening as an answer to significant modern city challenges related to post-industrial redevelopment, neighborhood and downtown revitalization, public health, environmental protection, and resilience to climate change. Despite greater understanding of all the benefits 'greening' can bring to an urban landscape, it is also important to recognize that not all urban contexts respond to being greened equally. Greening may cause neighborhood change in the form of displacement of residents when rent costs increase, property taxes are inflated, everyday living costs rise. This is particularly prevalent in greening and development projects that are implemented without involvement and participation of the existing community, whereby communities are 'greened' but perhaps only for

aesthetic and superficial purposes as opposed to directly addressing acute crises in the neighborhood. Furthermore, residents who live in neighborhoods that have undergone greening may no longer recognize or feel at home in their neighborhood, and so they become socially displaced from their community and without a strong sense of place or belonging. Lastly, while some historically green-deprived neighborhoods will be mobilizing for new environmental amenities, others might be aware of possible social impacts and push back against these intrusive green amenities, which have also been named GreenLuLus: Green Locally Unwanted Land Uses (Anguelovski 2016). As a result of these intersectional challenges, this report argues the policy and planning path toward urban green justice lies in finding the right mix of antidisplacement and equitable green development tools for the specific context of each city and neighborhood.



Goals of this Report

2

Review past and current American, Canadian and Western-European urban landscapes regarding displacement, gentrification, and greening challenges in cities.

Investigate the existing urban policy and community interventions that can mitigate the negative impacts of greening in historically marginalized neighborhoods and provide comparative analysis amongst these policies and regulations.

Provide policy and planning recommendations targeted towards policy-makers, planners, and community activists that prioritize:

- a) housing and land rights to ensure the ability of lower-income, minority, and immigrant residents to remain in place;
- b) recommendations for equitable access and inclusiveness of green amenities in urban areas.



Barcelona Environmental Justice and Sustainability

Who is **BCNUE**J?

The Barcelona Lab for Urban Environmental Justice and Sustainability was founded in partnership with the Institute of Environmental Science and Technology (ICTA) at the Universitat Autònoma de Barcelona (UAB) and a research group from the Hospital del Mar Medical Research Institute (IMIM) in Barcelona. The lab examines the structural and systemic drivers of social inequalities, exclusion, oppression, and neocolonization in cities. Building on the theory and methods from urban planning, public policy, urban and environmental sociology, urban geography and public health, we analyze the extent to which urban plans and policy decisions contribute to more just, resilient, healthy, and sustainable cities, and how community groups in distressed neighborhoods contest environmental inequities

as a result of urban (re)development processes and policies.

We believe in putting the needs of socially vulnerable groups at the center of sustainable urban land use practices and planning decisions, and prioritizing justice-driven responses to environmental and climate-related challenges. Our emphasis is on understanding the role that community, public, and private institutions can play in creating prosperous, welcoming and supportive cities for all.

The figure below presents the three major projects related to this report that the BCNUEJ lab is leading as of 2021.



Who is this report for?

This report is written with multiple audiences in mind. From tenants to homeowners, commercial developers to non-profit developers, and municipal planners to federal policy-makers, the tools in this kit involve a variety of stakeholders that contribute to building the urban realm. While this report aims to define the roles each stakeholder can hold and also contribute to an understanding of the language used in the discourse of anti-displacement/antigentrification and equitable urban greening, this report aims to provide recommendations for action to policy-makers, urban planners, and community activists. The toolset analyses and recommendations are directed towards actiontakers in the Global North geographical context, specifically in Western-Europe, the United States, and Canada.

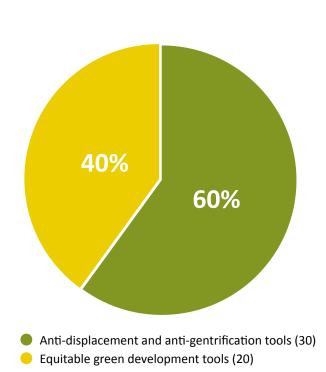


Figure 1: Breakdown of 50 tools summarized and analyzed in this report's toolkit.



How to engage with this report?

This report is organized into four parts:

- Theoretical and contextual understanding of the current housing equity and greening landscape that exists in cities in the Global North;
- Summary and overview of 50 tools that are available to planners and urban policy-makers to combat displacement impacts and pursue green investments and amenities in an equitable and just manner (see Figure 1);
- Analyses of selected policy tools through a lens of scenario and simulation to ground them in specific cultural, political, and growth contexts;
- Recommendations directed towards urban policy-makers, planners, and community activists.

Part 2. Exploring Housing Equity and Greening in the Global North

What is gentrification?

"Gentrification is deeply rooted in social dynamics and economic trends. Its signs, effects and trajectories are to a large degree determined by its local context; the physical and social characteristics of the neighbourhoods in question, the positions and the goals of the actors, the dominant functions of the city, the nature of economic restructuring and local government policy. The study of the city should pay heed to this complexity. ... In the end, the 'why' of gentrification is less important than the 'how' and the repercussions of the process."

(Van Weesep, 1994, 80)



- Urban transformation of a working-class, often (but not always) centrally located neighborhood into a middle class residential or commercial area (Lees et al., 2007).
- Redevelopment and regeneration projects intended for improved quality of life instead displace working class residents away from city center as they can no longer afford everyday living costs, rent prices and property taxes (Metropolis, n.d.; Paton, 2016).
- Gentrification can have several drivers: the arts, tourism, commercial development, residential construction, or urban greening (Oscilowicz et al., 2020).
- Adjacent neighborhoods receive displaced citizens, which have fewer amenities and where new residents may strain public services, contributing to an overall lower quality of life for both displaced residents and original residents of the adjacent neighborhoods.

What is a green amenity?

- An environmentally-based feature, such as park, garden, greenway, urban farm, or rail-totrail infrastructure aimed at increasing quality of life through health and wellbeing for those who have access to it.
- An outdoor 'natural' space designated for informal recreational activities whilst simultaneously addressing environmental ills such as pollution from industrialization or densely populated areas (UK Gov, 2020).
- Unfortunately, the benefits of a green amenity might become distorted, manipulated, or undermined without rigorous focus on equity, inclusivity and accessibility to ensure marginalization is not perpetuated or exacerbated.



What is green gentrification?

"...implementation of an environmental planning agenda related to public green spaces that leads to the displacement or exclusion of the most economically vulnerable human population"

(Dooling, 2009)

- New or restored environmental amenities to an area contribute to improved quality of life for those who have access to them and to increase in local property values (Immergluck and Balan, 2018).
- (Re)development of green amenities are designed to suit more middle class lifestyles, as opposed to addressing the needs of lowincome, working-class, and vulnerable residents (Paton, 2016).
- As working class residents are displaced, this process reproduces conditions of environmental injustices where environmental hazards and amenities are unequally distributed across neighborhoods along class and race markers (BCNUEJ, 2020a).

What is environmental (in)justice?

- "Fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (US Environmental Protection Agency, 2020). Included in this definition should be consideration for gender, disabled people, orientation, or religion.
- Relates to the equitable access to green amenities and other environmental goods.

Urban planning

- Urban plans should ensure equitable outcomes for all members of the community.
- Projects should prioritize the needs of working-class communities, people of color, and other groups historically excluded from urban planning decisions

- However, green spaces in working-class or marginalized neighborhoods have historically been under-maintained, of lower quality or less well distributed than in more affluent neighborhoods (Anguelovski, 2016).
- Green spaces have not always been welcoming, safe spaces for minorities and immigrants, where racist discourses and practices, including slavery, have historically excluded people of color from full integration (Anguelovski et al. 2020).
- Equitable development plans can include: prioritization of local residents in employment opportunities, support of local, small businesses, home purchase subsidies, and investments in community-driven planning processes.

Defining inclusivity vs. accessibility related to urban green space?

Measures of accessibility may consider all of the following:

- a) Proximity of specific green spaces to residences or communities (using linear or walking distance);
- b) Public accessibility (with or without entry fee);
- c) Specific points of access to green spaces (e.g. gateways, paths, car parks)

(WHO, 2016)

Inclusivity	Accessibility
Implies equal access	May not necessarily always be equal
Aspires to equal use of the space, accommodating for physical, social, or cultural differences between potential users	Focus is often more on the physical access to the space (e.g. the feasibility of use including spatial distribution and nearness, transport options, financial accessibility, mobility) (Gil Solá, 2018)
Different users feel equally welcome to use the space and can feel/create a sense of belonging and/or right to be there (GREENLULUS Data Set, 2019)	Sociocultural/more holistic understanding of access is important too (i.e. accepted presence of women/children in a space based on sociocultural values)



Where and how are cities succeeding in providing secure housing and equitable green amenities?

Urban greening, especially when underpinned by growth prospects, carries serious risks of displacement and gentrification. Providing both equitable green amenities and secure housing situations is crucial. It is important to consider that not one single policy solution or blueprint exists for this. Successful approaches often rely on a mix of policy tools that takes into account multilayered and context-specific dynamics, risks, and needs. Indeed, policy approaches arise out of historical, demographic, cultural and political contexts. In the EU, there has been considerable movement and action to ensure the right to housing for all, a trend since the industrial revolution when urbanization and populations in dense urban areas exponentially increased, and workers organized and fought for better conditions. Due to historically more socialist or social democrat policies, Northern European cities tend to have strong social and affordable housing regulations and programs to counter displacement. On the

contrary, in the US, political and racial dimensions related to a historical slave-trade and share-crop economy, combined with a cultural preference for individual wealth accumulation and neoliberal societal leanings, has generated severe exclusion particularly amongst vulnerable and racialized communities. This context has produced a lasting environmental justice movement, born out of the outrage of unjust racial, social, and political conditions as a means to challenge the living conditions that socio-economically vulnerable populations have historically been subject to. In sum, American cities may exhibit a stronger focus on establishing environmentally just communities.

Next, we present three European cities as historic references for anti-displacement and antigentrification practices, followed by two American cities that provide insight into the environmental community mobilization that is occurring in the US context.

Landscapes of anti-displacement and anti-gentrification

VIENNA

Context

- The city of Vienna has a remarkable history of social housing and governmental control of the housing market and has been mostly able to contain gentrification.
- As of 2018, half of its housing stock was either affordable or social housing (Cucca, 2017).
- The housing stock is partially owned by the city council as well as limited-profit associations while stock of public and social housing remains high as a result of preservation of 72% of its rent and lease regulated units, including publicly subsidized housing and private housing (BCNUEJ, 2019).

What is being done?

- Limited-profit associations receive government funding to cap rents and are obliged to invest their profits in new housing projects (CapaCity, 2017).
- Ensuring the construction of high-quality affordable housing, the city allows private developers to submit proposals to develop city-owned land. Proposals are evaluated on the basis of architectural quality, environmental performance, social sustainability, and economic parameters (Wohnfonds_wien, 2019).
- Combined with equitable and participatory greening strategies, Vienna has been able to prevent large-scale housing displacement while ensuring environmental quality.

Threats

- Vienna is experiencing new pressures due to a large increase in its population, producing trade-offs between the right to housing, rapidly rising real estate prices, and environmental innovations (Kadi and Verlic, 2019).
- Despite strongly embedded social housing policies, cutbacks on public investments have redirected the city's urban renewal processes and produced more reliance on privatelyfunded development (Franz, 2011).



A project part of a developer's proposal

Vienna, Austria Source: Wohnnet, 2020

Landscapes of anti-displacement and anti-gentrification

NANTES

Context

- During the last three decades, Nantes has established itself as one of the most 'green', yet still affordable cities in Western Europe.
- A public investment of around 30 million euros per year focuses on re-naturing of the city while prioritizing equitable distribution of green amenities amongst neighborhoods.

What is being done?

- Green space accessibility and equality standards guarantee that all inhabitants live within 300m of the 100 municipal parks and of a green area, with a minimum of 57m² of green space per capita.
- ZAC (Zones d'Aménagement Concertée Integrated Development Zone) redevelopment schemes allow planners to control large project developments. ZACs require private developers to comply with municipal guidelines regarding public and social housing construction (56% of the new housing stock) and community participation in (re)development projects.
- Through equitable greening practices and housing preservation mechanism, Nantes has been able to re-nature equitably without losing its affordability.

Threats

- Real estate prices are rising as tourists and young families (many from the Paris region) seek a better quality of life (BCNUEJ, 2019).
- Civic and community groups argue they have not been fully consulted in many of the city's most recent urban greening projects (BCNUEJ, 2019).



Greening in Parc de Bottière-Chénaie

Nantes, France Source: BCNUEJ, 2019

Landscapes of anti-displacement and anti-gentrification

AMSTERDAM

Context

- Up until the 1990s, Amsterdam was characterized by socially oriented urban planning (Fainstein, 2005). This consisted of direct subsidies to housing associations, a legal framework for rent regulation, progressive public land-ownership, and strict land-use planning, leading to 50% of units being public housing (Kadi and Ronald, 2014).
- Simultaneously, the (re)development of blue and green spaces gained momentum, especially waterfront transformation and the revitalization of the city's many parks (Anguelovski et al., 2019).

What is being done?

Today, the municipality combines a number of policy tools to keep Amsterdam affordable and socially mixed: prioritizing essential workers in the access to housing in the city center; supporting housing cooperatives that provide alternatives to homeownership and formal tenancy; and turning vacant office space into (temporary) housing.

Threats

- From the 90s onward, a change in discourse and practice occurred that led to the dismantling of the social and affordable housing system in favor of private-urban development and investments (Priemus and Van Kempen 1999).
- The (re)development of blue and green spaces combined with the erosion of sociallyoriented housing policies has led the city to have undergone widespread gentrification, especially in waterfront neighborhoods (Van der Likke and Stuart, 2017).
- It remains questionable whether the current policy tools in place can resolve the rising pressures on social and affordable housing (Couzy, 2019), given that the average price for a house rose from €200,000 in 2000 to more than half a million euros in 2019 (Ten Teije, 2020).



Waterfront redevelopment of the old shipwarf NDSM

Source: Biesterbos / Architecten Cie, in: Het Parool, 2017

Landscapes of community environmental mobilization

PORTLAND

Context

- Portland has been a leader in 'greener' and more sustainable urban living in the North American context for decades (Goodling, Green, and McClintock, 2014).
- The 'green living model' has attempted to conceal the city and state's history of urban racial exclusion (Coalition of Communities of Color, n.d.; City of Portland, 2018).

What is being done?

- The gentrifying Cully neighborhood in Northeast Portland exemplifies how widespread community efforts can re-conceptualize sustainability and resist gentrification.
- Living Cully, a collaborative project of four community organizations, improves Cully's environmental amenities while at the same time fighting gentrification and poverty by providing opportunities for local entrepreneurship, cultural expression, and expansion of affordable housing (Living Cully, 2020).

Threats

- Whereas Cully's Latinx community is actively engaged in Living Cully, there remains a gap in engagement with Black/African-American residents (Faunt, 2019a), which is especially challenging given the city's history of radicalized exclusion and environmental injustices.
- Greening strategies as part of (re)developments are rampantly inducing displacement and gentrification in vulnerable neighborhoods.



Mock up of affordable housing for Living Cully

Source: Faunt, 2019b

Landscapes of community environmental mobilization

WASHINGTON DC

Context

- Washington DC has been ranked as the most gentrified city in the United States (Richardson, Mitchell, and Franco, 2019).
- Clean-up of the industrially-polluted Anacostia River has introduced high-density and mixused commercial and residential properties with included green spaces (Mock, 2015). So far, the revitalization and green redevelopment has been mostly in the Navy Yard area, West of the river.

What is being done?

- As part of the (re)development plan, the 11th Street Bridge Park over the Anacostia River will encompass an elevated park, playgrounds, urban agriculture, and outdoor performance spaces and connect the pre-dominantly African-American Anacostia neighborhood to the rapidly gentrifying Navy Yard neighborhood (Building Bridges Across the River, 2018).
- Non-profit organizations are leading participatory engagement to ensure inclusive development, and aiming to counter gentrification, the non-profit organization Building Bridges Across the River, as part of the planning team, is opting for equitable development opportunities and civil participation in different stages of development.
- In response to threats to affordable housing as a result of new developments, residents and community representatives created the Douglas Community Land Trust to secure and manage affordable housing units (Douglas Community Land Trust, 2019).

Threats

- Residents in the historically African American neighborhood Anacostia fear that the proposed equitable development plans might be insufficient to halt gentrification (Interview, 2019).
- The new bridge has been nicknamed the "bridge to gentrification" as it creates a physical pathway to the already gentrified Capitol Hill and nearby Navy Yard.
- In Anacostia, rising housing prices and costs of living, contribute to long-term residents' displacement and reduction of sense of community (Anguelovski, 2019).

Community design neighborhood redevelopment Source: BCNUEJ, 2019



Where and why are Global North cities falling short of green equity?

GENERAL PLANNING CONUNDRUMS IN THE NORTH AMERICAN CONTEXT

Race and racism figure among the primary predictors and indicators of green inequities (Mohai and Saha, 2015; Pulido, 2017).

- In the United States, race and racism have produced an enduring history of housing segregation and discrimination, affect racialized minorities' property rights, and undermine tenants' ability to live in safe and affordable housing conditions.
- The deep racial dimension of inequity characterizing the North American context can make some policies such as those promoting homeownership more promising than others. Although driven by a concern for equity, policies related to shared land tenure may be evocative of the past practices of sharecropping and slavery to many black residents who were denied land ownership (Interview, 2019).
- Minorities and immigrants may have a conflicted or traumatic relation with nature because racist discourses and practices have often excluded them from green amenities (Anguelovski et al., 2020; Park and Pellow, 2011).
- Urban greening runs the risk of rebranding of racialized neighborhoods into green areas of privilege for upper class and white residents.

Prioritization of individual wealth accumulation strongly characterizes the American context.

- Domination of profit-driven housing agendas over socially-oriented agendas tends to undermine residents' right to affordable and permanent housing or to income-based subsidized rents, especially for vulnerable and racialized communities.
- Low-income and working-class residents can often find themselves trapped in cycles of reliance on social welfare without stable income and resulting financial and housing security.
- Homeownership is dominated by higher-income, white families while long-term minority residents' homeownership passed amongst generations has been shown to jeopardize families' ability to secure and prove housing title.
- Single-family home regulations that protect low-density living have arisen as an attempt to protect economically privileged residents.



Community coop and workers empowerment building in Anacostia

Source: BCNUEJ, 2019



Sign for participatory housing in Nantes

Source: BCNUEJ, 2019

Where and why are Global North cities falling short of green equity?

GENERAL PLANNING CONUNDRUMS IN THE EUROPEAN CONTEXT

Protective and established social welfare systems are shifting.

- Although the significance of factors such as race and wealth appears to be greater in the United States, these still play an important role in the European context, especially when it comes to the ghettoization of immigrant and ethnic neighborhoods.
- Rent control and other housing policies promoting affordable housing are often implemented in countries where political parties favor social welfare but have recently



Part 3. Toolkit: Anti-displacement/Antigentrification and Equitable Green Development Tools and Policies

This collection of tools and policies draws on field research conducted between 2018 and 2020 in 40 cities across 10 countries: the United States, Canada, France, Ireland, UK, Denmark, The Netherlands, Austria, Italy, and Spain. The cities and neighborhoods were identified from a larger EU-funded research project comparing the social impact of new environmental amenities in North American and Western Europe called GreenLULUs (Green Locally Unwanted Land Uses), and it also draws on field research conducted for a partner project called Naturvation. Recognizing green orthodoxy and practice have expanded through to the Global South (Comelli, Anguelovski, and Chu 2018, Anguelovski, Irazábal, and Connolly, 2019), this policy report examines solely the Global North context, as resulting from an American, Canadian, and Western European collaborative research endeavor.

Our comparative urbanism approach (Lees, 2012; McFarlane, 2010; Robinson, 2011) facilitates an analysis of how urban greening has been adopted, adjusted, and transformed in a variety of cities across political contexts, urban growth trajectories, and histories of urbanization. More importantly, it also allows us to identify cities, experiences, policies, and planning tools that have been successfully supporting residents' right to stay and improving access to urban environments for all, in particular for socially vulnerable groups.

All references to "Interview, 2018" or "Interview, 2019" are used to demarcate data directly sourced from interviews conducted as part of the GreenLULUs study. "BCNUEJ, 2018" or "BCNUEJ, 2019" refer to the collection of photos taken by the research team during fieldwork across the relevant cities.



GreenLULUs methodology overview

- 40 cities selected for the fieldwork represent a variety of geographic areas (Coastal, Midwest, and Southern US; Canada; Northern and Southern Europe); city types (industrial, post-industrial, economically growing or shrinking); and greening projects and sites (industrial transformations, climate resilient infrastructure, biodiversity protection and enhancement).
- 485 semi-structured interviews were conducted with neighborhood and citywide residents, municipal staff and elected officials, developers and other real estate stakeholders, representatives of community-based or non-profit organizations and activists working in the neighborhood.





Toolkit methodology overview

- Thematic review of GreenLULUs qualitative interview data for antigentrification/anti-displacement interventions and green amenity development regulations.
- Desktop and grey literature research of identified interventions.
- Critical analysis and investigation of policy and regulation interventions.



Geographical spread of policy tools and regulations

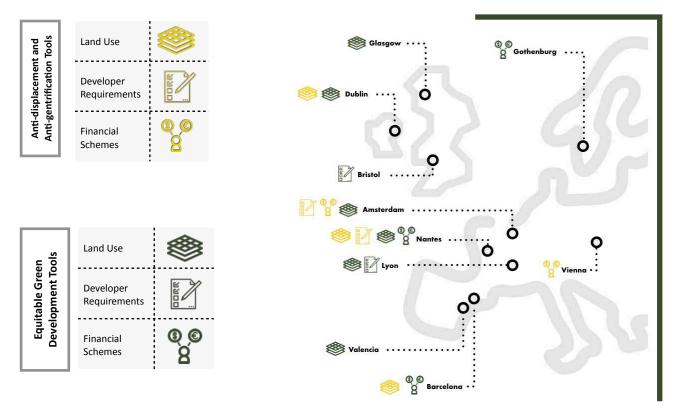


Figure 3: Map of Europe with all cities referenced in this report relevant to vignettes.

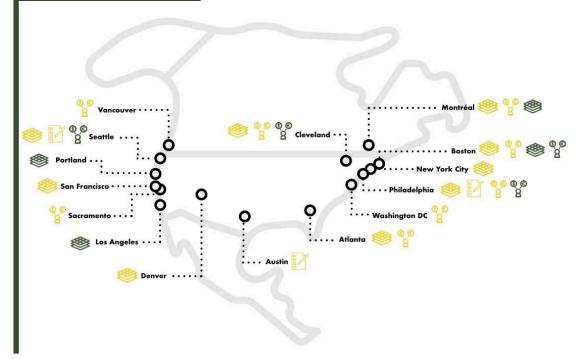


Figure 4: Map of North America with all cities referenced in this report relevant to vignettes.

Relevant stakeholders

The following table illustrates the main stakeholders involved in the creation and/or implementation of the selected policy tools. To nurture better social, economic, and political outcomes of the tools, all stakeholders should engage with affected communities and in particular with socially vulnerable residents.

Figure 5: Identified stakeholders relevant to implementation of policy tools and regulations A complete list of stakeholders and relevant tools can be found in Appendix A. A complete list of geographical area and scale of implementation for each tool and regulation can be found in Appendix B.		TENANTS Individuals who occupy land or property rented from a landlord	 Vulnerable to displacement as a result of insecurity of tenure Partake in a contractual agreement with owner/ manager of property
	D	HOMEOWNERS Individuals who own their own home	 Subject to homeownership taxes paid to municipal, state/provincial, and national governments
	益	MUNICIPALITY The government of a local area	 Manages land use of housing and green spaces May develop affordable housing or outsource development to private/non-profit industry
	đ	STATE or PROVINCIAL GOVERNMENT	 Funds larger green infrastructure projects Regulate and fund urban housing markets
	Þ	NATIONAL or FEDERAL GOVERNMENT	 Coordinates state/territorial governments in allocating funds, issuing tax credits, and subsidies
		PRIVATE DEVELOPERS Individuals and companies that profit from building houses or renovating existing properties for sale	 Seeks development in neighborhoods and municipalities with high profit margin Contribute to affordable housing and green space when mandated Subject to requirements and taxes
	F	COMMUNITY ASSOCIATIONS Non-governmental association of participating members	 Consist of neighbors, group of homeowners, or renters Seek engagement in different stages of policy planning and implementation
		NONPROFIT ASSOCIATIONS Non-business entities furthering a social cause and providing public benefits	 Manage housing, land use, and public green spaces Partner with city agencies in carrying out housing policies
		BUSINESS ASSOCIATIONS Organizations or entities producing or buying goods and services for profit	 Provide employment to local residents Small businesses may often be displaced because of gentrification
	Ø	COMMUNITY ORGANIZATIONS Organizations that seek to improve a community's social welfare and functioning	 Community organizations identify needs and goals for a community and provide leadership to mobilize citizens

How to navigate this toolkit?

The following collection of policy tools and regulations are presented as one toolkit in its entirety, divided into two categories: 1) anti-gentrification/anti-displacement tools and 2) tools for green equitable and inclusive development. Each tool is developed according to the same structure, beginning with a) summary of the tool which provides the reader with information on how the tool works, how and where it is implemented and by which stakeholder, the process of development, and at what level (municipal, metropolitan, national) it is enforced; b) analysis of its strengths and limitations, which includes constraints for decision and implementation, as well as possible negative effects; and c) a concluding vignette section describing one, two or three cities where the tool was put into planning practice, providing concrete examples of the tool implementation.

The following library of anti-displacement tools (30) followed by a library of equitable green development tools (20) provides examples of how the path to urban green justice lies in the right mix of anti-displacement and equitable green development tools for the specific context of each city.

Disclaimers and limitations





Anti-displacement policy responses

Land Use

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and Use Tool

Inclusionary Zoning

Definition

Inclusionary Zoning (IZ) is a planning ordinance whereby developers set aside a given share of new housing for people with low to moderate incomes. Eligibility for affordable housing is often determined by either the Area Median Income (AMI), the region's midpoint of the income distribution, or other determinants of relative financial status as decided by the municipality. IZ was developed in response to exclusionary zoning practices of the US in the 1970s which used zoning codes to exclude people with low incomes from communities, often directly impacting people of color. City mandated IZ typically requires developers to set aside percentages of new residential development for affordable units and can be either mandatory or voluntary. In some cases, developers can choose to provide affordable units off-site rather than on-site or pay fees in-lieu of offering affordable housing units. Voluntary IZ uses the provision of incentives for the inclusion of Below Market Rate (BMR) housing in development plans, such as increased density allowances or zoning variances.

In the United States, more than 80 percent of IZ laws are mandatory (Sturtevant and Stromberg, 2016). In localities with IZ programs, the requirements and structures differ. In Washington DC, for example, the District requires all new residential development with 10 or more units and existing buildings rehabilitated to include an additional 10 units to set aside 8–10 percent of the residential floor area for affordable rental or for-sale units. The DC Department of Housing and Community Development (DHCD) makes these properties available for interested households meeting income restrictions through a lottery system (DC DHCD, 2018). Whereas in San Francisco, "a density bonus allows developers to exceed the height and bulk limits if they meet certain thresholds of additional affordable units in their projects" (Interview, 2019). In France, there is a law that requires 20 percent social housing country-wide. Similarly, in Amsterdam, there is the 40/40/20 housing municipal mandate that requires new housing to consist of 40 percent social housing, 40 percent mid-range, and 20 percent market-rate housing.

Strengths and Limitations

A key strength of IZ policies is that they create mixed-income communities. A Boston planner remarked "when we have redevelopment or new development, a portion of that is affordable housing so that you have mixed incomes living together" (Interview, 2019). The inclusionary nature of these policies allows for lower- and moderate-income households to live in communities that would otherwise be unaffordable. This economic integration counters social issues which are heightened by concentrated poverty (Inclusionary Housing, 2020). Additionally, IZ policies rely on the development of new marketrate housing. When there is a shortage of affordable housing, this increase in housing can be especially beneficial. Because inclusionary policies utilize private developers' funds for the creation of units, it is not necessary for governments or nonprofits to provide funding, as is the case with many other affordable housing strategies.

While there may be benefits to working within the private-market, critics of IZ policies find that it can also pose new challenges. Cities using IZ policies find that enforcement can also be difficult, due to complex requirements and a lack of uniform oversight resulting in developers lacking accountability. Additionally, the reliance on the private market makes IZ policies more suitable to cities with a high demand for housing and would otherwise be less successful in cities with less competitive real-estate markets. Finally, because IZ policies rely on the development of new housing, the results run the risk of being counterproductive. In Montréal for example, a civic group commented on increased rents as a result of a dependence on the construction of condos for social housing. A representative of this civic group stated "we sort of jokingly call it the exclusion policy because it guarantees displacement of everybody who lives around it who doesn't have the luck to be in that 15% social housing" (Interview, 2019).

Vignette

Atlanta, Georgia

In 2005 the City of Atlanta, Georgia began construction of the Atlanta BeltLine which transforms a former railway corridor into a 22-mile green space, complete with multi-use trails and interconnected parks (Atlanta BeltLine, 2020). From 2000, when public discussion of the BeltLine project began, to 2006 when construction had begun, the median sales price in the Beltline and within one-eighth of a mile of the Beltline increased by more than 130 percent (Immergluck, 2009). The threat of displacement due to these dramatic rises in housing prices led to push-back from residents of many Beltline adjacent neighborhoods. Although the initial planning for the Beltline included ordinances that would require at least 5,600 units of affordable housing along with its round, the failure of these plans led to the resignation of the "father of the Beltline" and the director of a well-known local social justice organization from the board of the Beltline Partnership (Stafford, 2016). Thus, in 2017 the Atlanta City Council approved legislation introducing a Mandatory Inclusionary Zoning Overlay aimed at mitigating an increase in housing prices. All new multifamily rental developments with 10 units or more and within the BeltLine Overlay District (a 1/2 mile perimeter of the BeltLine Corridor) must include 15 percent affordable units (Atlantaga.gov, 2020). One such redevelopment project within the BeltLine Overlay District is 'The 1300', a 47-unit affordable housing project at 60 percent of the market-rate per unit (Keenan, 2020). Developed in partnership with the nonprofit City of Refuge organization, which aims to assist those experiencing situations of homelessness, the building is home to many graduates of the City of Refuge program which offers healthcare and educational services to those in need. Despite the success of The 1300, only two other new residential development projects have been executed on the BeltLine, leaving still considerable affordable housing action to be desired.



Atlanta BeltLine under construction.

Source: Curbed Atlanta, 2020 -----

Vignette

Nantes, France

In 2000 a Housing Act, called Solidarité et Renouvellement Urbain (Solidarity and Urban Renewal or SRU), was introduced in France. SRU is a countrywide social policy that aims to support mixed-income housing. SRU requires that all French towns above 3,500 residents have a minimum of 20 percent social housing in the housing stock (Blanc, 2010). In 2014, under the Loi Duflot, the minimum was changed to 25 percent in several cities (Levasseur, 2016). Monitored by the Department of Housing, towns face fines if they do not comply with the ordinance (Blanc, 2010). The City of Nantes has elected to surpass this minimum with a commitment to include 33 percent of social housing and 24 percent of affordable housing for new real estate projects. Among those, l'Oiseau des Iles, or Bird Islands, is an affordable and social housing development designed by Antonini and Darmon which leverages inclusionary zoning to provide 30 social housing units as well as 600m² of commercial space to the western tip of Île de Nantes.



Proposal for L'Oiseau des lles mixed-use building with 30 social housing units.

Source: Alexandre Wasilewski and Valery Joncheray Photography, 2014

Inclusionary Zoning

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_and Use Tools

Up-zoning

Definition

Zoning is the primary way in which cities manage and regulate land by determining the land use (what you can build on a parcel of land) and the density (how many people are safely allowed to occupy). Municipal governments implement zoning codes and regulations that specify what kind of projects can be built and limits on building size. Up-zoning is an approach typically used by cities in the United States for leveraging regulatory powers by changing the zoning in order to allow for higher-value development or higher-density land use. The value might rise for example by passing from industrial to residential use, while the density can increase through a higher allowable Floor Area Ratio (FAR). In general, up-zoning involves changing the zoning code to allow taller and/or denser buildings, for example changing single-family zoning codes to allow taller and denser housing like duplexes, triplexes, accessory dwelling units (ADUs), and apartment buildings. In this way, the buildable capacity of land increases, and there is an opportunity to increase supply and value.

In response to the worsening housing affordability crisis in the 2010s, policymakers in many American cities, and at times states, proposed up-zoning as an efficient way of opening up the capacity of the land for more housing and encouraging additional development. In the last few years, up-zoning legislation has been introduced or passed on a state or municipal level in California, Oregon, Washington, Seattle, Minneapolis, Nebraska, Virginia, and Maryland. In addition, the federal government has expressed interest in pressing local governments to relax zoning laws that prohibit multi-family housing.

Strengths and Limitations

Up-zoning is typically motivated by the belief that regions with stricter zoning controls overall feature lower housing affordability and restrain new construction. By contrast, up-zoning advocates argue that allowing for density will increase the production of housing supply creating the environment for more affordable housing as competition for homes decreases. As a developer from Seattle concluded, "In a sort of democratic process this land is zoned for multi-family and we displaced three people but we're going to have housing for probably 25" (Interview, 2019). Another argument in favor of up-zoning is observations that zoning restrictions have been associated with higher rates of regional income segregation, exclusion of Black and Hispanic residents, and reduced economic growth. Finally, building housing closer to amenities such as transportation infrastructure and jobs can favor the use of public transportation or encourage walking instead of car dependence, making a climate case for up-zoning.

Critics of up-zoning voice an opposing assumption claiming that by increasing risks of accelerated real

estate development and land speculation, upzoning may encourage rising local prices, producing ultimately gentrification and displacement. By increasing the potential for development, upzoning can increase values in the affected areas and price out the existing residents that can no longer afford to pay rent. There is indeed no guarantee that new developments will include a substantial amount of affordable housing units unless local planning regulations oblige developers to do so. A group of organizations committed to increasing access to housing in Denver remarked that zoning is often an equity issue. "The ones that typically benefit from the rezoning are the higher income [residents] because they can afford to get a loan. Typically Black and Latinx [residents] have less access to capital than other communities" (Interview, 2019). Furthermore, the added capacity does not necessarily translate into added construction because developers do not always choose to build. Once up-zoned, some spaces are not of high design quality, and others are functionally inaccessible or devoid of amenities such as open and public that attract public use.

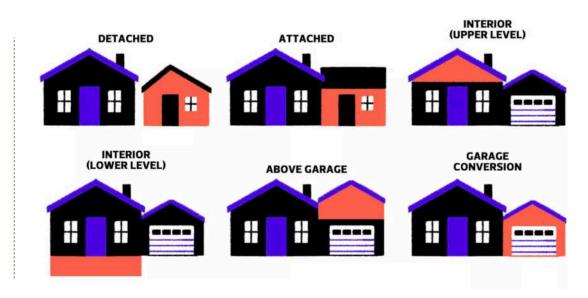
Up-zoning

Vignette

Denver, Colorado

In the context of a new economic boom and large urban transformations and development, Denver is one of the four major US cities where renting prices have drastically increased with significant displacement of the its Hispanic-Latinx-Criollo population — the largest in the US (Westword, 2019). Housing price increases and housing instability have led to physical displacement of residents and mass homelessness, as 3,500 residents of Denver County have been homeless since 2018.

Zoning changes for certain areas of Denver is considered to be a new partial solution to the city's housing problems. Governmental and housing development advocates claim that converting buildings from single to multiple family housing would solve the lack of housing stock both for market priced-homes and for homes rated as affordable. In addition, housing grassroots groups suggest that innovative solutions such as tiny homes for homeless people or housing cooperatives remain an underutilized option. Some community members from the mostly Latinx-Hispanic-Criollo neighborhood of Athmar Park have organized to use BluePrint Denver (a planning document that tries to incorporate social equity lens to land use) to justify the need to adapt zoning classifications in their neighborhood.



Types of accessory dwelling units (ADUs). Source: Budds, 2020

Up-zoning

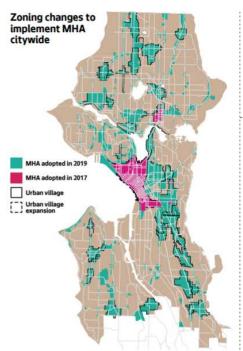
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Vignette

Seattle, Washington

South Park is a neighborhood in South Seattle where the struggle around greening and environmental improvements has intersected with rising rental and housing costs. Historically, South Park has been characterized by environmental injustices such as lack of green spaces and high levels of pollution while also remaining one of the few neighborhoods in Seattle with a strong presence of people of color. Despite the environmental threats, South Park residents consider the biggest problem of the neighborhood to be gentrification, especially the rising cost of housing and the threat of eviction among lower-income residents. This situation has created tension between the fight for resources for housing versus concern for environmental improvements in the neighborhood. Many community members perceive a direct competition for finite resources in terms of funding and the use of scarce vacant land between housing and greening.

To tackle the housing crisis, Seattle City Council in 2019 adopted the citywide Mandatory Housing Affordability (MHA) legislation. MHA is part of Seattle's Housing and Livability Agenda (HALA) that aims at creating 50,000 homes by 2025, including 20,000 affordable ones. MHA is a requirement implemented by changing zoning to allow larger development and more housing, while directly supporting affordable homes. The legislation implements affordable housing requirements in what is known as 27 "urban villages" throughout Seattle. It will provide at least 6.000 new rent-restricted homes for low-income people and it takes effect when the Seattle City Council adopts new zoning that adds development capacity. The proposal and implementation of MHA have been shaped by community engagement and a commitment to racial and social equity in order to minimize the risk of displacement and increase housing choices (Government of Seattle, 2020). However, critics of MHA are concerned these projects will fail to create the expected amount of affordable housing, while worsening the effects of redlining which disproportionately impacts communities of color (South Seattle Emerald, 2018).



Left: Seattle zoning changes to implement MHA citywide. Source: Government of Seattle, 2020

Below: Activists and neighborhood town hall meeting in South Park, Seattle. Source: BCNUEJ, 2019



Up-zoning

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and Use Tool

Re-zoning of green space to residential space

Definition

Re-zoning of green space to residential space occurs through local government and changes the zoning district designation and what uses are allowable within a geographical area of land. In the case of re-zoning of green space to residential space, previously zoned areas of land designated as green space (often with parcels under the ownership of municipal entities or federal governments) change in zoning designation to residential. This would allow for residential development to occur on the parcels of land that are affected within the zoning district designation.



Green space in South Park, Seattle Source: BCNUEJ, 2019

Strengths and Limitations

In an effort to alleviate pressures from unaffordable housing, re-zoning of green space to residential space may provide available land for affordable housing to be developed. In many instances, land zoned as green space is vacant and under-utilized. A re-zoning to residential space may also affect property value of future development, however negatively or positively is largely determinant of the surrounding neighborhood property value. Re-zoning of urban green spaces may also reduce development pressures on more rural or agricultural land that would otherwise have been suburbanized in order to provide more housing opportunities (Groot et al., 2010).

On the other hand, re-zoning of green space may affect the bio-diversity or environmental condition of the zoned land. Should housing be developed on the land, the quality and extent of the green space and the ecosystem services it provides may be jeopardized. Additionally, cultural and community value and identify with the space green space may be threatened as the space undergoes development (Flanagan, 2019).

Re-zoning of green space to residential space

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Vignette

South Park, Seattle, WA

The mostly Latinx and non-white community of South Park, Seattle has remained one of the city's most affordable neighborhoods despite residential and green gentrification accelerating housing affordability and displacement pressures on its residents (Cole, 2019). Amongst park revitalization attempts throughout the city, South Park Plaza emerges as a contentious urban park redevelopment project that residents deem as unnecessary and unwanted, while affordable housing is neglected. Other nearby or accessible parks to South Park residents include the small Duwamish Waterway Park on the Duwamish river and across from Boeing Aircraft commercial plant, as well as the larger Westcrest Park in neighboring Highland Park. While the community recognizes the value of urban green spaces, it has a much deeper need for affordable housing that would discourage displacement. As one resident reflects, "there's so many other parks that are being built, that are getting \$10 million to be built, we don't need another park, we need housing, people are being kicked out every single day (Interview, 2019). The property, however, has been land-banked by Seattle Parks and Recreation and therefore can only be used as green/park-space and so the City has proposed a design concept to include community amenities such as an open gathering space, activity space, vending areas, and art (City of Seattle, 2020). Further public and neighborhood consultation may occur as a result of disfavor for the proposed concept.



Mayor Durkin addresses the South Park community as housing activists appear with signs demanding affordable housing.

> Source: BCNUEJ, 2019

Re-zoning of green space to residential space

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Vignette

Amsterdam

Volkstuin are allotments or community gardens recognized as culturally significant, functional, green spaces for families and individuals in the Netherlands and are organized as an association amongst neighbors. Volkstuinen are used by local residents to connect to their food, build community with other local residents, and provide sense of place and identity within their neighborhoods. In 2017, the City of Amsterdam has proposed to develop land previously used as volkstuinen to create a new large residential area called Haven-Stad in the Westpoor neighborhood of Amsterdam (Geemente Amsterdam, 2017). Haven-stad will include 70,000 homes and would bring 58,000 jobs into the mixed residential and commercial development, becoming one of the largest mixed-use developments in Europe (Urban Design and Strategy, 2018). Local urban planners as well as residents lobbied to retain the green areas of the volkstuin as public space as the community felt existing green space did not have the capacity for incoming residents to Haven-Stad (Interview, 2019). In the case of Amsterdam, seeking to increase available housing is coupled with an awareness of physical capacity and emotional value of existing green space.



The intended site of Haven-stad in Amsterdam.

Source: Gemeente Amsterdam, 2017

Re-zoning of green space to residential space

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Preservation Districts or Historic Districts

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Definition

Preservation and historic districts are zoned areas within both urban and rural cities that are designated to protect existing buildings based on their cultural or historic value. As a planning tool, these districts can help protect a neighborhood and its existing residents from ongoing and external processes of change and gentrification by prohibiting their demolition and/or redevelopment into large scale, high-end estate development. These districts are designated at the local government level, often in collaboration with not-for-profit organizations or the local community.

The stipulations of these districts restrict certain alterations to existing infrastructure as well as the destruction of protected buildings passed through a by-law made by local government. Additionally, developers or individual property owners must adhere to maintaining the character and quality of buildings to a standard designated by the district regulations. Implementation of these districts include participatory coordination between 1) local governments and 2) individuals, communities, and not-for-profit organizations. Considerations should include the historical, cultural, and economic value of the existing infrastructure in order to mitigate an increase of new construction or redevelopment based on land-speculation and other gentrification forces.

Strengths and Limitations

Preservation and historic districts can provide protective benefits to residents of communities within the zones. By limiting changes to the size or character of homes and neighborhoods, housing values are stabilized, resident-retention is increased, and displacement of long-term residents is decreased (Lawrence, 2010). Emotional and cultural networks remain intact as community members are not otherwise forced to move based on financial limits. Additionally, the sense of community and integrity of community bond remains intact. Without such protections, residents may be displaced as a result of housing demolition, increased costs of living, or landlord harassment (Anguelovski, 2014; Freeman and Braconi, 2004; Lawrence, 2010). Last, such designations help preserve the architectural value, character, and homogeneity of a neighborhood (or a part of it), especially so for the buildings that hold particular importance for minority groups.

In some cases, however, preservation and historic districts may hasten gentrification and lead to increased rates of displacement (Grevstad-

Nordbrock and Vojnovic, 2019). Studies in historically marginalized and ethnic minority neighborhoods in New York have shown that a community's socioeconomic status often improves following the designation of preservation or historic districts while still aggravating displacement as the neighborhood is made less accessible to lower-income residents (McCabe and Ellen, 2016). This may be attributed to increased interest in the neighborhood by higher-income and more educated residents towards areas with a special "architectural character", or by pricing out low-income residents as new construction growth is limited and those residents cannot find alternative housing. Housing prices may also increase regardless of redevelopment which prices out long-term residents as a result of increased property taxes in areas that hold stronger architectural and historic value. In these cases, it appears that the recent designation of historic or preservation districts may be a catalyst to such negative impacts for lower-income residents.

Preservation Districts or Historic Districts

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Vignette

Dallas, Texas

Dallas Tenth Street is part of a historic Freedman's Town, a neighborhood or town originally settled by former slaves emancipated during or after the American Civil War, which has existed since the late 1800s. The community, with families residing for generations, has endured a series of racialized and inequitable planning policies implemented by the local government that have led to the displacement of low-income and Black residents.

The series of planning policies begins with the redlining of the neighborhood, or systematic denial of essential services provided by the local and federal government, during the Jim Crow era of legal racial segregation in the early 20th century. Racial discrimination continued to occur as the neighborhood was cut off from the rest of the West Dallas area by the construction of the I-35 highway in the early 1950s. This segregation was further exacerbated as the zoning of the neighborhood was designated as industrial. These historic homes and structures fell into disrepair over time and a 2010 city ordinance made the destruction of older properties in disrepair even easier. A clause that protects homes over 3,000 square feet — added at the insistence of several wealthier and predominantly white historic districts — has done little to protect the historical Freedman homes from demolition as they are traditionally smaller and of a more compact design. With over 25 percent of the historic designation of the neighborhood, new policies are now in the works which aim to remove the historic designation of the neighborhood, holding the argument that not enough historic structures remain in the neighborhood to merit such a designation.

Local neighborhood activists have made appeals to both City Council and the local Landmark Commission to retain the historic designation. Without the historic designation, local residents feel pressured to sell as they receive offers for their housing and property from developers. Furthermore, the municipality has proposed the development of a multi-million deck park project over the existing interstate which local residents have found the proposal of such a project has increased the value of their homes, and thereby increased their property taxes by thousands of dollars (Interview, 2019). Should the historic designation be removed and the value of the neighborhood increase as a result of unrestricted speculation and development, local residents will be priced out of their existing homes based on unaffordable property taxes and costs of every-day living. The historic designation would allow residents to remain in their community as unbridled residential development would be curbed.



Variety in the historic buildings of Tenth Street Neighborhood.

Source: City of Dallas, 2006

Preservation Districts or Historic Districts

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and Use Tool

Regulations on touristic/short-term rental apartments

Definition

Short-Term Rental (STR) refers to the renting out of a furnished property for a period shorter than the conventional residential rental, typically lasting less than one month (Furukawa and Onuki, 2019). STR is a main component of the so-called 'sharing economy' and it has become increasingly popular since the establishment of Airbnb in 2008, an online platform matching STR hosts and guests (Furukawa and Onuki, 2019). Local governments worldwide are struggling to regulate STRs particularly in relation to their negative externalities related to the availability and affordability of housing for long-term residents in touristic areas (Nieuwland and van Melik, 2020); increase in criminal activity as related to increases of touristic activity (Oscilowicz et al., 2020); and changes to traffic patterns and air quality (Furukawa and Onuki, 2019).

In general, there are three regulatory approaches to STRs: prohibition, laissez-faire, and limited restrictions imposed by municipalities or tourism districts (Nieuwland and van Melik, 2020). As the most common practice, prohibition implies banning STRs in a community as well as introducing certain limitations to Airbnb. The laissez-faire approach, on the other hand, excludes any type of regulation. Municipalities also have the option to apply limited restrictions which includes a variety of tactics and efforts to restrict visitor numbers, available accommodations, and accommodation days. Other restrictions may also include locational restrictions to confine STRs to specific locations, density limits to diminish the number of STRs in certain neighborhoods, and occupancy taxes imposed onto owners of the STRs. Lastly, qualitative restrictions define the types of accommodation that can be rented out, establishing specific safety requirements. These regulations are combined with obligations for the hosts which include obtaining a license or a permit for legal renting and are subjected to fines in case of their violation (Nieuwlan and van Melik, 2020). These measures aim to curtain the negative externalities that threaten the livelihood of residents and to protect affordable housing and quality of life. The regulations of STRs vary depending on the characteristics of the city and so do their implications.

Strengths and Limitations

Through STRs, residents have the opportunity to earn extra income by renting out their homes or a part of them, while tourists can enjoy authentic experiences of staying with locals. Other potential benefits include the revitalization of the neighborhoods as well as a more sustainable mode of cultural consumption for tourists.

On the contrary, STRs have been criticized for several reasons. Firstly, urban tourism contributes to traffic congestion, parking area scarcity, increased noise and drunken behavior in residential areas. Moreover, STR can also be disruptive to the traditional lodging industry. Yet, the most prominent issue in terms of STR regulation has been pointed to gentrification (Anguelovski, 2018; Furukawa and Onuki, 2019; Cócola Gant, 2016). Housing affordability and availability might be jeopardized when housing units are turned into vacation rentals. This is increasingly the case when commercial investors buy residential properties turning them into permanent Airbnb accommodations (Nieuwlan and Van Melik, 2020). Although beneficial to homeowners, the rising

values of the properties are detrimental to longtime residents who can no longer afford to pay rent and are then pushed out of their neighborhood. In addition to the direct displacement, the neighborhoods become unaffordable to newcomers, producing the dynamic of exclusionary displacement (Cócola Gant, 2016). In the long run, the growth of vacation flats can foster the reproduction of further accommodation for tourists rather than for long-term residential use, producing 'collective displacement' in which residential life is almost entirely substituted by tourism (Cócola Gant, 2016).

Airbnb and other STRs can produce different effects on individual cities. Positive or negative externalities of this kind of rental practice highly depend on factors such as the size of the city, existing tourism industry, and the amount, location and concentration of Airbnb listings (Oskam and Bodwijk, 2016 quoted in Nieuwlan and Van Melik, 2020).

Regulations on touristic/short-term rental apartments

Vignette

Barcelona, Spain

Barcelona is a global touristic destination with tourism as the largest industry in the city. Since the 1990s, holiday rentals and short-term rentals have increasingly become a challenge for local residents searching for affordable long-term housing. As tourism has grown, investors and hotel companies have bought entire apartment buildings and transformed them into vacation flats, while some landlords stopped renting flats to traditional tenants altogether (Cócola Gant, 2016). As of 2017, there are 17,930 Airbnb or STR listings in the city (Neuwland and van Melik, 2020). To ease tourism pressures, Barcelona shifted its focus towards spreading tourists over the entire city and implementing full or partial bans of Airbnb under the context of overcrowding and limited housing availability.

In Spain, powers over tourism are devolved to the 17 regions of the country. The city of Barcelona classifies short-term and vacation rentals as "tourist households" that are offered for a period of less or equal to 31 days (KeyCafe Blog, 2020). The renting process must be in legal compliance with city council rules which involves submitting a certificate of occupancy, registering the property as a tourist household, passing inspection before approval, and registering contact information and documents for all visitors who stay at the property. In addition, short-term rental operators are required to collect tourist taxes to remit to the city, as well as pay taxes on their short-term rental income (KeyCade Blog, 2020). In 2014, with tourism driving up rent and creating displacement among the residents, the city authorities stopped issuing new licenses and shut down many illegal vacation rental properties (El Paìs, 2019).



Protests against short term rentals for tourists in Barcelona.

Source: Público, 2017

Regulations on touristic/short-term rental apartments

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Vignette

Boston, Massachusetts

Rents in Boston are among the highest in the nation and have been growing at an average of 5 percent annually. The residential housing supply is dramatically restricted by limited resources of developable land, construction materials, labor, and restrictive land-use regulations (Horn and Merante, 2017). In a city where the housing market is highly competitive and the demand for rental housing is outpacing supply and increasing rents, home-sharing exacerbates these negative dynamics. As reported by a project manager from Boston, "[Airbnb] is taking away from housing stock because you can charge double what you charge for rent on a weekly basis" (Interview, 2019).

In June 2018, a citywide ordinance established new guidelines and regulations for short-term rentals in Boston (City of Boston, 2020). Boston's ordinance defines a short-term rental as a stay of 28 consecutive days or less. The plan involves incorporating the growth of the home-share industry into the city's planning in order to create affordable housing and to preserve existing housing stock. Boston's ordinance only permits owners to operate short-term rentals in their primary residence with one registered operator per permit per residential unit (Lin, 2020). The regulations include ensuring that a home is eligible to host short-term rentals; registering properties with the City of Boston; obtaining a business certificate from the city clerk's office; and displaying the registration number on all listings. In addition, hosts must renew their license each year, and they may only offer one whole unit at a time. Moreover, homes that are below market rate or income-restricted cannot offer short-income rentals, including those subject to affordability covenants or to rental assistance under local state or federal law. Currently, Boston allows the operation of short-term rentals in all districts zoned for residential use (Lin, 2020).



Boston presents itself as an attractive touristic destination and a highly-livable city. Source: BCNUEJ, 2019

Regulations on touristic/short-term rental apartments

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_and Use Tools

Moratorium on new businesses, hotels, and other hospitality industry permits

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Definition

Moratoriums are a legal and temporary prohibition of a type of activity or a suspension of some law or regulation. Implemented through a by-law by a local government, moratoriums can be applied to prohibit and suspend the establishment of new businesses or new hotels within a specific neighborhood of a municipality or the municipality as a whole in an attempt for capacity control. Among others, these moratoriums can be utilized in order to target new touristic businesses that are a catalyst to gentrification (Gotham, 2005). Freezing of business licenses to existing touristic businesses or halting of development permits of new hotels, and a halt of business licensees for tourist apartments are examples of actions a municipality may take in order to reduce gentrification and tourism pressures.

Strengths and Limitations

By limiting the growth of tourism, local residents can benefit from a variety of positive effects felt, both shorter- and longer-term. Within the neighborhood, residents benefit from reduced street and pedestrian congestion, the potential for reduced crime as tourists are less abundant to be targeted, lower costs of every-day living, as well as decreases in rent costs. Also, a moratorium avoids the concentration of certain type of businesses which may take over traditional stores or even residential buildings all together for new commercial activity, including hotels, restaurants, or short-term rentals. A moratorium can thus maintain a greater diversity of activity and uses.

While a moratorium on touristic businesses and licenses may offer positive effects for local

residents, it can also have a deep negative impact on the greater tourism industry and city-wide economy. Businesses that are paralyzed by moratorium may make financial and legal regress claims toward the same municipality that implemented them in order to compensate for business and job loss (Burgen, 2017). Additionally, while the number of beds and the capacity of touristic businesses may be limited by a moratorium, numbers of tourists may remain the same which can put pressures on existing touristic infrastructure as well as artificially raise daily rents due to increase demand (Arnau, 2018). As demand continues to grow, illegal accommodations may also increase in number which can be an opportunity to take advantage of vulnerable travelers.

Moratorium on new businesses, hotels, and other hospitality industry permits

Vignette

Barcelona, Spain

Barcelona is one of Europe's most visited cities. In 2018 alone, Barcelona received over 9 million overnight visitors (Barcelona City Council, 2018), while between 2015-2019 the number of residents living in the city center declined by 11 percent (McCarthy, 2019). Local residents and neighborhood associations have voiced their concerns and protest to the tourism industry in Barcelona as they feel it has overwhelmed every-day quality of living. Demonstrations on major touristic streets, such as La Rambla, have taken place under the slogan "Barcelona isn't for sale" (Burgen, 2018).

In 2017, under the leadership of Mayor Ada Colau and through the Governing Council Commission, the City of Barcelona implemented a moratorium called the Special Tourist Accommodation Plan (PEAUT) to suspend the processing of urban planning projects, land management projects, and licensing related to tourist accommodations (i.e. hotels, aparthotels, guesthouses, hostels, Airbnb) in the city (City of Barcelona, 2017). The PEAUT was established on four goals: 1) to ease the pressures of tourism on residents and the city; 2) to respond to demands made by city residents regarding their concerns and discontents; 3) to strike a balance between tourism economy and quality of living; and, 4) guarantee the right to housing for residents of the city (2017). The PEUAT functioned through zoning the city into four areas, each with distinct regulations determined by the current resident population, scope of commercial activity in the area, and the impact of commercial/touristic activity on public areas (2017). The plan was met with significant backlash by developers and leaders in the tourism industry. Legal action was taken against the City of Barcelona in an attempt to remove the implementation of the plan. The Superior Court of Catalunya (TSJC) annulled the plan in July 2019 as the courts determined no economic or financial evaluation of the effects of the plan was being carried out (El Periódico, 2019). The City has since appealed the decision and a resolution will be sought in 2021 (Angulo, 2020).



Messaging directed towards tourists on the gentrification threats to the Barceloneta neighborhood.

Source: BCNUEJ, 2019

Moratorium on new businesses, hotels, and other hospitality industry permits

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Definition

'Single-family home' is the housing typology of a detached unit intended for a single household. Singlefamily home land-use policies, such as single-family home zoning designation, prevent communities from building any type of housing in a given area aside from a single-family home. Minimum-lot-size regulation is a size requirement that stipulates every individual parcel of land in a regulated area be equal to or greater than specified square footage with limitations on how small a developer can subdivide a lot (American Planning Association, 2020). Both of these land-use regulations ultimately are used to control the density of a community and are set by the city through zoning ordinances, often with regard to the city's comprehensive plan. Zoning designations and land-use regulations determine what uses and structures are able to be conducted in given areas of the city, they can be revised on a case-by-case basis through processes such as rezoning and variance at a city's discretion. Neighborhoods may protect existing singlefamily homes in danger of redevelopment, which may happen after changes to zoning, through historic designation and through targeted overlays.

Historically, single-family home zoning was used to exclude affordable housing from communities in the United States, often with the intention of excluding the Black and immigrant communities who were more likely to live in apartment buildings. However, single-family homes are also reflective of neighborhood identity and points of pride for longtime residents. Recently, cities have found that the defense of single-family homes and minimum lot-sizes can be tools to protect affordability and prevent gentrification associated with the over densification of neighborhoods due to development.

Strengths and Limitations

Single-family homes and minimum lot-size requirements create less dense cities and therefore facilitate a different feel of urban life. These landuse tools can be used "to respect the balance of living standards in the neighborhoods and to maintain the general silhouette of the city, [...]. or else we lose the quality of life" (Interview, 2019). When controlling density through land-use regulation, such as protecting single family homes and minimum lot-size requirements, a city is better able to equip residents with adequate community facilities such as parks and playgrounds. Defenders of single-family home zoning and minimum lotsize-regulation claim these regulations prevent developers from turning a lot into large-scale luxury multi-family housing. As a city council member from Boston explains, "if you have a single-family or a two-family that's on a large lot. If you don't have a minimum lot size it allows the developer to bulldoze that beautiful one-family home and replace it with eight, 10, 12, 14 units which pack them in" (Interview, 2019). A planner from Washington D.C reiterates the argument for minimum lot-size as a measure of protection: "Every lot should have a minimum size so that, or

should be preserved so that we don't have townhouse developments because in the US south townhomes are a symbol of gentrification" (Interview, 2019). In addition to managing density, the preservation of single-family homes can provide more affordable housing options for families while protecting the character of neighborhoods.

While cities have found benefits in single-family zoning and minimum lot sizes, the tool certainly has its critics. As previously mentioned, traditionally single-family zoning was used to prevent affordable housing, which often held with its racial and class discrimination. Today, this zoning class is still often looked down upon by affordable housing advocates as single-family housing means fewer housing units which consequently leads to more housing demand, followed by more expensive housing. In fact, there is a large push in many cities to do away with single-family zoning entirely. The City of Minneapolis and the State of Oregon have already approved legislation to remove the classification in favor of densification and increasing affordable housing options (Trickey, 2019).

Vignette

Dallas, Texas

When Dallas faced an influx of development in the early 2000s, neighborhood organizations were disappointed to find that the process to protect communities from development through historic district or conservation district designations could take as long as three years and would involve regulations that would not specifically benefit these neighborhoods. In 2005, the Dallas City Council established Neighborhood Stabilization Overlays (NSO) for single-family zoning as a tool to protect the community in a more streamlined process (City of Dallas, 2020). NSOs allows residents of single-family zoned neighborhoods to place restrictions on the type and size of structures built within the overlay. The process for obtaining an NSO is initiated by the request for a petition from a neighborhood committee of at least ten homeowners. The process is then committee-led, from data collection to establishing regulations who present their proposal to city staff at a community meeting. Once approved, the committee has 6 months to submit the proposal as a zoning request (City of Dallas, 2020).

When land in the La Bajada neighborhood of West Dallas began attracting real estate attention with the 2012 opening of the Margaret Hunt Hill Bridge, La Bajada neighborhood organizations became concerned that the character of the neighborhood, a largely Hispanic neighborhood of small single-family cottage-style homes, would be lost to development (Minora, 2011). The neighborhood wanted to prevent developers from coming in and "taking a block of single-family homes and trying to rezone them to something denser that would be too expensive for the people who are living there to afford" (Interview, 2019). After being approved as the 13th NSO District in Dallas, La Bajada is "the only community in West Dallas that was able to have that pass, and, you know, had the foresight to put that into place" a civic group member from La Bajada explained (Interview, 2019).



Homes in La Bajada Neighborhood of West Dallas

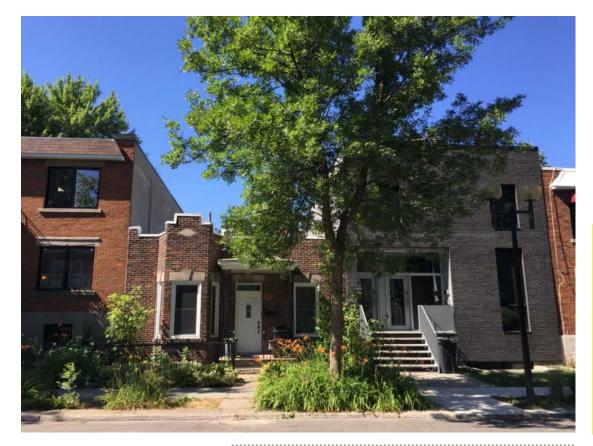
Source: Dallas Morning News, 2015

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Vignette

Montréal, Quebec, Canada

In the early 20th century, a large number of working-class people moved to the neighborhood of Rosemont, purchasing single-family housing structures referred to as 'shoeboxes', a reference to the units' modest size (The Global Grid, 2014). In the 1990s, Montréal saw an increase in development, specifically in the trendy Plateau Mont-Royal district as new condominiums appeared in and around the district. The formerly workingclass district of Rosemont has since become a desirable neighborhood, making the district's shoebox homes a target for developers to put displacement pressures on existing residents as they seek to create more profitable housing (Damaris, 2004). Because of their unique classification, it was easy and cheap for developers to obtain demolition permits. To prevent developers from erasing the urban history of Rosemont's shoebox homes and the families that owned them, the city passed a bylaw in 2019 which laid out a clear framework to protect the 516 shoeboxes from being razed for development and from being significantly altered representing a measure to preserve the heritage that these single-family homes represent (Montréal Gazette, 2019). Not all owners of shoebox homes are pleased by this law, as they are no longer able to renovate or sell their property despite intensifying structural issues as a result of age.



One of Rosemont's historical Shoebox homes in Montréal. Source: Melissa García Lamarca, 2019

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and Use Tools

Community Land Trusts

Definition

Community Land Trusts are non-profit, community-based organizations designed to ensure community control and ownership of land and development. CLTs grant community members the opportunity to be homeowners, while also protecting the land and its housing from market-driven development and displacement associated with gentrification by preserving the land as affordable. The basic CLT model follows that the non-profit trust purchases and owns land permanently, typically only buying unused land with the goal of preserving it (Klibanoff, 2016). The trust then grants selected community members and their households' access to a "long-term" renewable lease, which typically last 99 years. As part of their benefits, tenants have opportunity to live in a CLT home for generations if they choose, with financial support and resources to maintain ownership offered throughout. When the tenants decide to "sell" their homes to relocate, they earn a portion of the increased property value, and the trust keeps the remainder which allows the trust to enter into a new long-term lease with the next tenants at an affordable cost. This allows CLTs to preserve affordability and housing access for future low to moderate-income families while also providing financial capacity for tenants as they move forward.

Today, over 225 community land trusts exist in the United States, mostly in urban and dense cities. While CLTs have developed most extensively in the United States, CLTs exist in other countries as well and can also aid in displacement prevention. CLTs in Australia typically function as a method for aboriginal or indigenous communities to achieve homeownership, whereas the United Kingdom primarily uses the CLT model to preserve affordable housing in rural communities for middle-income and wealthy families to have second homes (Hoover, 2018). In both Belgium and France, the public sector provides considerable support to CLT project initiators while national-level governments are relatively disengaged from the programs (Pialucha, 2020).

Strengths and Limitations

A major strength of community land trusts guarantees that the land owned by the organization will remain affordable to tenants for generations. While other affordable housing preservation or creation techniques can sometimes be abused by developers, as a result of granting benefits to developers, CLTs are explicitly community-focused and prioritize helping community members become homeowners of affordable housing for residents in areas threatened by increased rent costs and gentrification (Morris, 2020). In fact, large scale CLTs tend to be most effective in cities where inmigration and gentrification are beginning to affect the city and have historically suffered from disinvestment and now have notable vacancy rates (Morris, 2020). Through low rates of foreclosure and delinquency, CLTs are able to protect homeowners from predatory mortgage lenders and can intervene when mortgage payments are at risk

of being missed (Morris, 2020). CLTs can also protect its residents when the market turns for the worst by providing stable housing where property value is not of main concern. (Stewards of Permanently Affordable Housing). Finally, CLTs can also revitalize the public and improve a sense of belonging through landscaping and the development of community gardens (Morris, 2020). Overall, CLTs provide a variety of benefits that help residents remain in their homes and slow gentrification (Choi, Van Zandt, and Matarrita-Cascante, 2017).

While a successful CLT model can provide many benefits, it can often be difficult to operate successfully and efficiently. Many CLTs encounter issues related to a) administrative and legal difficulties for land and building purchasing, b) complex financing, and c) families being budgetconstrained. Over the last 30 years, only 200-250 CLTs have been successfully provided the full range of theorized benefits.

Community Land Trusts

Vignette

Boston, Massachusetts

The Dudley Street Neighborhood Initiative (DSNI) initiated community-wide discussions on the availability of affordable housing in the neighborhood through participatory meetings with residents to focus on development plans which included sections on business development, affordable housing, social services and programs, education, and public spaces. In its first venture into affordable housing development, the local government through the Boston Redevelopment Authority offered the DSNI 1,300 taxdelinquent parcels and vacant private land known as the "Dudley Triangle" which encompasses 30 acres. The Dudley Land Trust now includes 225 affordable housing units in addition to a playground, a community garden and greenhouse, and commercial and office space (Morris, 2020). The Dudley Land Trust model has been regarded nationally as a strong anti-displacement model and emulated by dozens of community groups around the country. It is praised for its ability to preserve affordable housing permanently, improve environmental quality for residents, and build political power and voice for racialized minorities in the broader neighborhoods of Roxbury and Dorchester.

A community sourced mapping exercise with residents of Dudley Street South Boston facilitated by the Dudley Street Neighborhood Initiative.

Source: Dudley Neighbors Incorporated, n.d.



Community Land Trusts

Vignette

New York City, New York

According to a report by NYU's Furman Center, only 9 percent of homes on the market in 2014 were affordable to the 51 percent of New Yorkers who earned less than \$55,000 USD per year (NYU Furman Center). This inspired a multi-partner Interboro Community Land Trust. While this is a new initiative, the Trust is pulling in large partners with existing portfolios such as the NYC Department of Housing Preservation and Development. The first project will convert 250 units into permanently affordable housing units (Morris, 2020).



Map of gentrifying, non-gentrifying, and higher-income neighborhoods in New York City. Source: NYU Furman Center, 2016



Atlanta BeltLine with midtown skyline. Source: David Goldman, 2017

Vignette

Atlanta, Georgia

Atlanta Land Trust (ALT) aims to oversee permanently affordable housing in and around targeted areas in Atlanta, including land proximate to the Atlanta Beltline (Stewards of Permanently Affordable Housing). The BeltLine is a 25-year project which connects 45 neighborhoods in Atlanta. The trust focuses on increasing their portfolio of permanently affordable housing and providing stewardship services for the resalerestricted, owner-occupied homes. It created a strong environment for community land trust development by promoting public policy, community engagement, and fundraising. To qualify for a home through ALT, applicants must have an income below 80 percent AMI, be either employed, disabled, or a senior citizen, and have a minimum credit score of 620. Trust leaders created their first deed restriction agreements for three units in 2012, after the exploration of the need for a CLT as a tool to mitigate economic displacement from the Beltline development in January of 2007 by the Atlanta BeltLine Partnership (ABP). In recent years the trust has received significant grants and land donations from organizations such as the Ford Foundation Enterprise Community Partners, Wells Fargo, and the Kendeda Fund.

Community Land Trusts

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Definition

Land banks are governmental entities or nonprofit corporations that are focused on providing affordable and additional housing to communities in need (McFadyen, 1978). Land banks achieve this through the conversion and return of vacant, abandoned, and tax-delinquent properties into productive use. With growth of vacant, abandoned, foreclosed properties as a result of acute or international economic recession, many local governments and neighborhood groups have used or partnered with land banks to implement redevelopment tools to improve and reimagine the urban fabric of the neighborhood.

In housing markets where property speculation is rampant and affordable housing is difficult to develop as a result of inflated property costs, land banks can help to increase housing supply by accelerating development on a property through the following mechanisms:

- 1. strategic land assembly, or the bringing together of contiguous lots in order to create a larger developable land or green space;
- 2. demolition of nuisance properties;
- 3. deed-in-escrow programs to facilitate the acquisition renovation and sale of a property to homeowners and property improvers in order to renovate an existing building;
- 4. in-house renovation and resale of a property by the land bank;
- 5. partner with non-profit and charitable organizations to provide buildings to carry out their work (Cuyahoga Land Bank, 2009; Philadelphia Land Bank, 2013).

Strengths and Limitations

When formed as a local government entity, land banks can be utilized to clear titles or eliminate taxes on a foreclosed property – expediting processes of development. Land banks that function as a separate non-profit entity can also form partnerships across jurisdictional boundaries, even forming a regional land bank which can allow neighboring communities to support each other in transforming their urban fabric (National Housing Conference, 2017).

While land banks provide an opportunity for partnerships, creating a land bank in itself may be difficult as they often require aligning state and local policies (BCNUEJ, 2019). Additionally, the financial feasibility of land banks remains a limitation as concerns about how much revenue can be generated from a property and then redirected towards larger communities may surface. Local government and community leaders may argue the revenue generated through sales of a property to a market-rate housing developer would be greater than if a land bank entity were to develop on the property itself. This revenue on taxes may be used to redevelop existing properties or provide funding for supportive housing projects (Smith, 2017). Finally, while a building may be considered a financial negative asset, the cultural or social value of the building may be significant for community members. This relationship to a building is not always recognized by a land bank, who aims to demolish buildings in order to improve property value and functionality of a property, which may create situations of unintended loss of buildings important to community (Trickey, 2019).

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Vignette

Cleveland, Ohio

Cleveland, and the larger Cuyahoga County, was hit particularly hard by the 2008 financial crisis while long-standing racial segregation in the east side of Cleveland and the suburbs of the major city has further exacerbated poverty. As a result, many residents left the city or foreclosed on their homes, leaving over 30,000 vacant lots to become negative assets while the remaining residents who had not left continued to experience severe financial loss and live in poverty (BCNUEJ, 2019). In an attempt to reduce the number of vacant lots, provide more affordable housing for existing residents, and encourage the return of those residents who left, the Cuyahoga Land Bank was formed to return blighted properties back into productive use and increase property values throughout the affected neighborhoods. Funding for Cuyahoga Land Bank comes from the accumulation of penalties and interest on collected delinquent real estate taxes and properties as well as grants and donations from the Land Bank's partners (Cuyahoga Land Bank, 2009).

Since its creation, the Land Bank has aimed to support existing residents to improve their properties "where there was interest [including encouragement to] build or expand green spaces on property" (Interview, 2019). Residents of the County have brought to the Land Bank's attention that some properties could have been renovated or rehabilitated, instead of demolished, in order to save the cultural value and reduce financial expenditures (Interview, 2009).



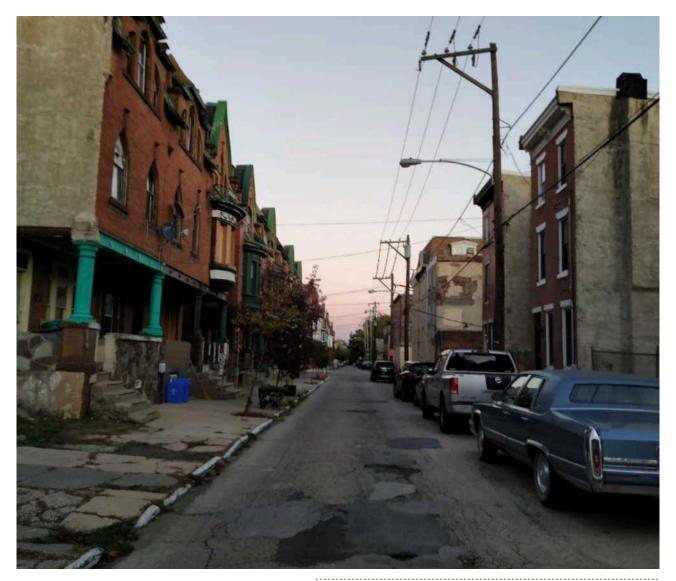
A blighted property in the Tremont neighborhood of Cleveland.

> Source: BCNUEJ, 2019

Vignette

Philadelphia, Pennsylvania

In the case of Philadelphia, the municipality holds considerable land under the city's name but lacks funding in order to develop the land and provide housing for those in need. The Philadelphia Land Bank (PLB) was created in an attempt to "get land out of the city inventory and into the hands of people who will [engage] in housing development" by returning vacant and tax-delinquent properties to productive use (Interviews, 2019). The process of reaching PLB goals has been shrouded by non-transparent land-titling processes, chronic undervaluation of land by the organization, imposition of overly-strict regulations on developable land without government subsidy, as well as political intervention by the Philadelphia City Council (Briggs, 2019; Interview, 2019). Because of these circumstances, few developers are offering proposals for affordable housing on PLB-owned land.



A neighborhood in Pennsylvania with vacant and boarded properties. Source: BCNUEJ, 2019

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Anti-displacement policy responses

Developer requirements

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Developer Requirement

Obligation for developers to include affordable units in development

Definition

Affordable housing defines that a household should not pay more than 30 percent of their income for housing Baqutaya et al., 2016). Affordable housing is most critical to those whose total household income falls below the median household income for that city, region, or nation. Those in need of affordable housing often have other concerns, such as ensuring the appropriateness of housing for family structure and circumstances; enhancing economic diversity in specific cities and neighborhoods; and maintaining specific community ties without displacing people (Vox Media, 2015).

Inclusionary housing programs are a powerful tool that municipal policymakers implement to address affordability in housing. Through the form of local ordinance or policy implemented by a local government, all developments of a certain size are required to include a minimum percentage of affordable housing (City of Chicago, 2014; City of Vancouver, 2017; City of New York, 2020). Inclusionary housing programs require or provide incentives for market-driven development of affordable homes at market-rate prices for working-class households. Certain programs allow developers to comply in alternative ways through the payment of an "in lieu" fee that can be used to create or preserve affordable housing in other areas of the city. Moreover, inclusionary programs typically rely on zoning incentives which offer extra floor area to new developments if certain inclusionary housing program requirements are met, further providing encouragement to developers to contribute to increasing supply and improving the quality of affordable housing.

Strengths and Limitations

Creating affordable housing can minimize the displacement of existing residents, support more housing choices, such as homeownership and family-size housing, and minimize the impacts of new development on existing neighborhood character (City of Seattle, 2019). In addition, as many of these affordable homes are produced within market-rate developments, people have more opportunities to live in desirable locations, such as near parks, schools, and transit. Furthermore, housing insecurity is known to cause negative physical and psychological health outcomes, such as stress-related health issues, depression, or malnutrition, among others (Brookings Habitat, 2020). Providing more affordable housing options to families and individuals would reduce occurrences of such negative outcomes as well as contribute to the continued improvement of health as additional resources can be dedicated to healthy food and medical care.

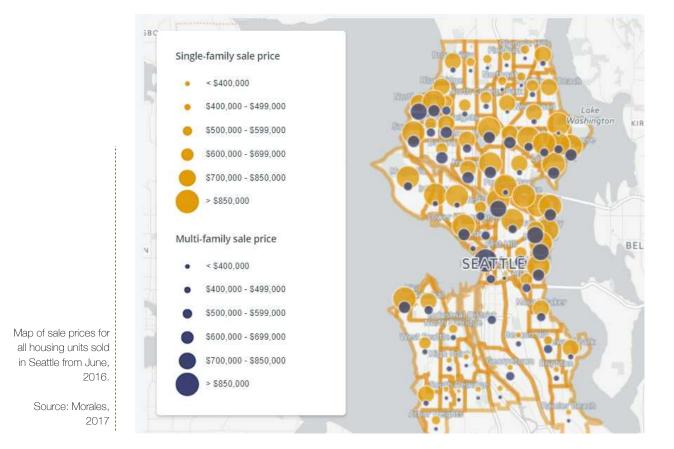
Tougher regulations on mandatory affordable housing imposed by municipalities can sometimes be counterproductive, as they may discourage rather than encourage the creation of housing in the city (Chicago Business, 2020). If the obligation to include affordable units depresses the profits for developers substantially, developers will decide not to move forward with the development project. Developers may also seek out alternative methods to reach inclusionary housing program requirements by paying into a city housing fund and subsequently receiving permission to reduce the number of required affordable homes in the intended project. Additionally, developers may propose to build some of the units in a different neighborhood or location within the city, often one that is characterized by lower rental prices. With this, housing policymakers are challenged in finding the optimal level of regulation that produces more affordable housing without depressing development (Chicago Business, 2020).

Obligation for developers to include affordable units in development

Vignette

Seattle, Washington

In order to achieve action on affordable and market-rate housing production during a period of unprecedented growth in Seattle, city leaders implemented a policy of Mandatory Housing Affordability (MHA), a critical component of Seattle's Housing Affordability and Livability Agenda (HALA). The Mandatory Housing Affordability plan, adopted in March 2019, requires new developments to include between 5 and 11 percent affordable units (performance option), or contribute to the Seattle Office of Housing fund to support the development of affordable housing (payment option) (City of Seattle, 2019). Included in all new multifamily housing developments, more affordable housing units will be available in neighborhoods characterized by higher rental costs. Utilizing incentive zoning, MHA has adjusted zoning laws in 27 of Seattle's urban villages to allow for increased height and density of buildings (National League of Cities, 2019). During field research, a Seattle housing planner described the use of incentive zoning as "a way to allow growth which hopefully increases the supply which has a bit of an effect on price and then also create the requirement of affordability" (Interview 2019). Overall, the MHA proposal aims at creating 50,000 homes by 2025, including 20,000 affordable homes (City of Seattle, 2019). Yet, due to the high price of land all around the city, some developers report that it is not economically feasible to pencil in affordable units (Interview, 2019). Many developers opted instead to contribute to the fund, which does not produce new housing as immediately as the development of higher-income housing. This causes a preoccupation for the city's residents that fear affordable housing will not be able to meet the demand (BCNUEJ, 2019).



Obligation for developers to include affordable units in development

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Vignette

Nantes, France

Since the 1990s, Nantes has developed an ambitious housing agenda with funding to allow working-class and moderate-income residents to benefit from a more livable city. Housing has been at the center of urban planning and policy, with neighborhoods such as Malakoff, Dervaillières, or as large districts of social housing developed in response to the acute housing crisis.

Recently, Nantes has adopted a legal requirement that stipulates a portion of new real estate projects must include social housing (33 percent) and affordable housing (24 percent) (Interview 2019). Within public ZACs (concerted planning zones), Nantes Metropolis defined a slightly higher objective of 35 percent social housing, up to 25 percent of affordable housing, and 40 percent housing in the free market (Gallez, 2020). Those commitments are supported by social and affordable housing laws at the national level and reinforced by municipal commitments to housing rights such as the newly implemented PLH 2019-2025 (Programme Local d'Habitat). The program includes a variety of housing schemes that offer affordable accommodation to all residents, based on income, age, and other social-vulnerability aspects. This is particularly relevant in eco-districts, where affordable housing schemes include Social Rental Mortgage, known as PLS (a type of loan that provides fiscal advantages to the owners of the housing to request lower rent prices to their tenants), and Social Housing Purchase, known as PAS (a type of loan used to become the owner of the house). The diverse set of housing approaches is complemented by a focus on greening practices in the design process of development projects in the city, offering both affordability and high environmental quality for middle- and working-class residents.

Today, Nantes is facing new challenges related to persistent population growth as more people move to the city, attracted by its reputation as a green and livable city, creating pressure on the real estate market. These dynamics have naturally triggered the proliferation of new urban development projects across the city, some of them contested by grassroots groups due to their social and environmental impacts on peripheral, agricultural, or informal green lands (BCNUEJ, 2019).



Map of projected Île de Nantes plan in 2037.

Source: Ouest France, 2018

Obligation for developers to include affordable units in development

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Density bonuses to encourage affordable housing

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Definition

Density bonusing is a zoning tool applied by municipal planners that permits developers to build more floor space than is normally allowed in the zoned area (City of Vancouver, 2020). Developers can accomplish this through a strategic exchange of floor space for community amenities, such as libraries, parks, and childcare centers. Similar to inclusionary zoning, density bonusing may also be exchanged for a certain percentage or number of affordable housing units within the developed unit (2020). These bonuses are generally offered under non-negotiable rules that are predetermined and may be offered at a standard of one market-priced unit for every affordable unit provided ("Density Bonusing", 2016). In order to protect over-development, municipalities often place a limit on the extra floor space that can be added to the development, usually 125 -150 percent of the building's base zoning height limit or floor space area (Ryan and Enderle, 2012).

Strengths and Limitations

Density bonusing can be a highly effective tool in reducing the financial burden on developers in providing affordable housing units, particularly in the case of inclusionary zoning (Ryan, and Enderle, 2012). By reducing the financial impact, developers may be more willing in proposing developments in density bonuses or inclusionary zoned areas. It is also a tool that can ensure that a certain percentage of affordable housing units are included in a new housing complex, thereby building more mixed neighborhoods and theoretically contributing to less displacement. Mixed neighborhoods may also be realized through mixing of housing forms, whereby townhouses and duplexes, as opposed to more apartments or single family homes, are made available, as well.

Despite density bonusing as a useful tool in neutralizing costs for developers, tertiary costs such as parking requirements or setbacks limit the floor space ratio that is made available to developers, thus impeding the number of units that can be built. With such restrictions, developers may not be interested in developing in certain zones as profits do not off-set costs. Preference to where profits are highest can cause uneven development and potential displacement of residents. Last, the percentage of affordable housing units included in an area or a project with density bonuses might be much lower than needed in order to ensure neighborhood affordability and anti-displacement.

Density bonuses to encourage affordable housing

Vignette

Austin, Texas

Austin has experienced significant neighborhood and urban change as a result of population increase due to its attractive climate and cultural amenities. City of Austin planners are limited to the tools available to mandate affordable housing, however, municipal planners hope to leverage density bonusing to provide more affordable housing stock and distribute housing capacity evenly across the city. Austin currently has ten density bonus programs, relevant to several zoning areas within the city, each with its own set of criteria regarding developer qualification (City of Austin, 2014). Of significant interest is the promotion of 'missing middle' housing, or medium-density housing units such as townhouses or duplexes within the city as an effort to encourage density throughout the municipality (Kimble, 2019).

Despite intentions to provide more affordable housing and allow growth to be distributed equally throughout the city, local residents have expressed significant distress regarding attempts to densify their neighborhoods. Residents are concerned they will be displaced from their homes as a result of rising property values and taxes, particularly when new and attractive housing forms, such as townhouses, are developed within their neighborhoods. Some city staff have also voiced their concerns regarding the program, stating density bonusing may reward slumlords as it is easier to demolish buildings that are poorly maintained and later rebuild on the same site (Thornton, 2019). With such limited means to provide affordable housing, the City of Austin must seek to reduce exclusionary zoning and provide more equal opportunities for public participation in planning (Kimble, 2019).



A diagram explaining Austin's density bonusing program.

Source: City of Austin, 2014

Density bonuses to encourage affordable housing

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Definition

Vacant land and unoccupied structures are often considered both a cause and consequence of disinvestment, lost revenue, safety hazards, and crime in urban environments. In addition to being a barrier to urban revitalization, vacant land and buildings affect not only economic prosperity in many cities, but also the health and safety of residents (Garvin et al., 2013; Peleg and Hamstead, 2015). Vacant land is caused, among others, by disinvestment, suburbanization, industrial decline, contamination of land, and both urban shrinkage and expansion (Peleg and Hamstead, 2015). Vacant properties have been shown to create a financial strain for cities, decrease tax revenue, produce greater maintenance costs, and blight that lowers the value of nearby properties (Curbed, 2019). Although real estate vacancy is international, it does not have the same causes and implications across countries (Abbé Pierre Foundation and FEANTSA, 2016).

To combat these issues, cities around the world are investing in policies that offer an alternative perspective on vacant land as a resource. In particular, in areas where housing supply does not meet demand, vacant properties can be mobilized to increase housing supply and provide affordable housing, while limiting urban sprawl. For example, by making publicly-owned vacant or under-utilized buildings available for the development of affordable housing, cities can ensure an increased supply of lower-cost homes in areas with high land costs and limited development opportunities (Local Housing Solutions, 2020). These properties can be made available at no or a reduced cost to developers that commit to specific affordability requirements. Cities that create a program encouraging the use of publicly owned land for affordable housing development must determine if eligibility is limited to non-profit organizations or open to all developers who agree to commit to affordability requirements (Land Housing Solutions, 2020). In addition, cities may use tax policies to encourage development on vacant land to mitigate urban disinvestment cycles and covert purposeless land into affordable housing. The discounted land and low-income housing tax credits and other financing mechanisms subsidize the affordable units.

Strengths and Limitations

Turning vacant land into a resource of affordable housing can help cities meet housing goals particularly for lower-income residents. This policy tool is particularly beneficial in communities where vacant land appropriate for residential use is scarce, such as in high-value, amenity-rich locations where it is extremely difficult to create new affordable housing for low- or moderate-income households (Local Housing Solutions, 2020). In addition to leveraging legal tools and providing incentives to developers, cities can partner with local organizations and individuals to empower neighborhood-based maintenance of vacant land,

creating community gardens and urban farms in addition to affordable housing (Garvin et al., 2013).

On the other hand, the absence of universal definitions of vacancy and abandonment may complicate efforts to assess the number, location, and ownership of vacant and abandoned properties (Hud User, 2014). Moreover, while many of the properties sold by the city become affordable housing as intended, some of them are resold with huge profit for market-rate development (The Philadelphia Inquirer, 2020).

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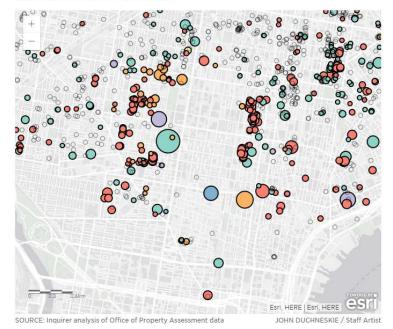
Vignette

Philadelphia, Pennsylvania

As of 2013, Pennsylvania had over 40,000 vacant land parcels, often concentrated in low-income neighborhoods as a result of job loss and significant population reduction (Garvin et al., 2013). Studies have shown that vacant land dominated by decaying abandoned homes and overgrown vacant lots affects community well-being, physical, and mental health by contributing to fractures between neighbors, attracting crime, and breeding fear amongst neighbors (Garvin et al., 2013). In order to tackle the vacant land issue, Philadelphia Housing Development Corporation (PHDC) manages more than 5,000 properties (both publicly and privately owned) for sale around the city, most of which are vacant land or buildings in need of major repairs. Properties, normally sold at fair market value, are available at discounted prices to nonprofits if their projects address community needs, including affordable housing (City of Philadelphia, 2020).

In addition, the Philadelphia Land Bank is a powerful tool, fought to be implemented by community grassroots organizations, that is used by the PHDC for distributing publicly owned vacant lots to community gardens and other community-managed spaces (Grounded in Philly, 2020). Since 2000, Philadelphia has sold more than 2,300 properties for \$1 USD with the goal of greening neighborhoods or creating affordable housing (Philadelphia Inquirer, 2020). However, in nearly 800 cases, owners resold those \$1 USD properties for a total of \$54 million USD. Although the city has the right to take back parcels that have not been developed or rehabilitated within one year, the ability of private entities to profit enormously from the city's flexible policies around vacant lot redevelopment is still an issue of concern. In response, in January 2020, a new law went into effect requiring that nominal land sales have a financial plan in place and a permanent deed restriction or a 30-year mortgage that ensures wider societal benefits if the land is sold prior to the terms of agreement (Philadelphia Inquirer, 2020).

Property not resold Current uses of properties that were resold Circle sizes are proportional to resale price Single family Multifamily Vacant land Mixed use Commercial Commercial



Current uses of properties that were resold in Philadelphia.

Source: Inquirer analysis of Office of Property Assessment data (through Philadelphia Inquirer, 2020)

Vignette

Amsterdam, The Netherlands



A study in 2005 revealed that 18 percent of the total office space in Amsterdam is empty, with some areas approaching nearly 50 percent vacancy (Visit Holland, 2020). In response, the City of Amsterdam focused on a structural approach to tackling vacant office buildings and transforming them into residential properties, hotels, and healthcare centers. A dedicated Office Space Intermediary Team has been appointed to accelerate the transformation, introducing vacancy regulations that encourage office owners to take part in tackling the problem. Moreover, in June 2011 the municipality introduced a new law that established that owners whose buildings contain more than 10.00m² and are empty for longer than half a year must report their buildings to the municipality whom will assign new tenants (students, artists, or other companies) to the building in question (Van Zupthen et al., 2015). When the vacant land is owned by the municipality, a percentage of affordable housing is required when developing the lot through a tender or a bid. Meanwhile, if the land is privately-owned, the municipality assists in the transformation of the relevant land-use plan with the developer's commitment to affordable or social housing. Examples of recent transformations include the construction of student homes and student hotels by DUWO, a student housing association, and social housing corporation Rochdale that converted approximately 12,000m² of an office building into student residences and business units (Arch Daily, 2020). One drawback of such a transformation is the predominance of hotel and student housing type of construction rather than more long-term residences.

Student Housing in Elsevier Office Building/ Knevel Architecten. Source: Leonard Fäustle (through Arch Daily, 2020)

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Anti-displacement policy responses

Financial schemes

Housing-focused, aimed at homeowners

Housing-focused, aimed at renters

Community-focused

-inancial scheme

Aimed at homeowners

Definition

Property tax is a tax paid on property, usually by the owner of the property, and is calculated and collected by the local government for where that property is geographically located. Property tax support is a financial support that reduces the burden of this property tax based on stipulations determined by the local government who collects them. Often, these stipulations can include consideration of the property owner's socioeconomic level and household income in relation to property taxes owed. Local governments may choose to reduce property taxes of households with children over a certain age, owners under a certain socioeconomic level, or earnings under an income threshold in order to reduce financial disparity throughout a municipality and reduce critical financial pressures from taxing (City of Denver, 2020). Property tax support may also be utilized by an organization or business for which owns a property, dependent on factors such as if the building on property provides affordable housing or fulfills certain sustainability and green markers (Shazmin, Sipan, and Sapri, 2016).

Strengths and Limitations

Property tax support may provide critical financial relief to low-income families or individuals in gentrifying neighborhoods as their property taxes are reassessed annually and increase as a result of gentrification pressures (Ajuntament of Barcelona, 2016). By reducing the financial pressure of property tax payment, these families or individuals may be more likely to remain in their neighborhoods and displacement can be reduced. These saved finances may also then be put into the maintenance or improvement of homes, further incentivizing families and individuals to remain in their homes, neighborhoods, and communities.

On the other hand, the same property tax support that may benefit low-income families can also

benefit developers who are interested in redeveloping property in gentrifying neighborhoods, as in the case of Cleveland, Ohio (Allard, 2020). While the extra saved finances by developers may be able to pay forward into the local economy to contractors and builders of the redevelopment, developers may also pocket these extra finances in a surplus of capital. Despite the potential for circular economic benefits from property tax support when claimed by developers is significant, it is dependent upon the intentions of these stakeholders. Such limitations are particularly concerning in US cities where a large portion of the municipal budget for operations such as city services and schools are derived from property taxes.

Property tax payment support for

homeowners

Property tax payment support for homeowners

Vignette

Cleveland, Ohio

After many years of national economic recession, Cleveland aims to reduce blight and attract homeowners through new green amenities and affordable development (Triguero-Mas, 2020). Since 2004, the City of Cleveland aims to encourage developers, builders, and homeowners to continue building and rehabilitate the city through the Residential Tax Abatement program which "eliminates 100 percent of the increase in real estate property tax that results from certain eligible improvements" in remodeling or new construction projects (Greater Ohio Policy Center, 2020). While intended to offer support to individuals or families interested in rehabilitating or redeveloping their homes, developers have also been able to take advantage of the tax abatement as it is "available whether [housing is] affordable or not" (Interview, 2019). As a result of concerns about the gentrification impacts of the tax abatement, Cleveland City Council launched a study in 2018 to measure the impact of the tax abatements on the city (Greater Ohio Policy Center, 2020). This study found private developers were being tax-relieved on expensive, multi-family residential properties, assuming 52 percent of the total abatement value offered by the City (Higgs, 2020). The study also found that tax abatements were largely being issued to gentrifying neighborhoods, such as Ohio City, Tremont, Detroit Shoreway, and University Circle, as opposed to lower-income and under-stimulated neighborhoods (2020). Overall, the study found tax abatements were not successful in "shifting overall patterns of [economic and population] decline" (Rosentraub, Mikelbank, and Post, 2010); instead, tax abatements have contributed to the continued gentrification of certain neighborhoods and uneven development throughout the city as a result of financially uncurbed redevelopment by large, private developers.



Vacant lot, with new development in background, located in the Tremont neighborhood of Cleveland.

Source: BCNUEJ, 2019

Property tax payment support for homeowners

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Aimed at homeowners

Homestead tax credit/tax exemption

Definition

Operated by the state or local government, a tax exemption, like other deductions, reduces the taxable income for taxpayers, whereas tax credits directly reduce their tax bill (Zacks Investment Research, 2020). The homestead tax exemption in particular is a tool widely operated in the United States that applies to property taxes and reduces the amount of property value subject to taxation, either by a fixed dollar amount or by a percentage of home value. Importantly, it only applies to the primary residence, not rental properties or investment properties (Smart Asset, 2020). Homestead tax exemptions usually offer a fixed discount on taxes, for example exempting the first \$50,000 USD of the assessed value, that is the dollar value assigned to a property to measure applicable taxes (Investopedia, 2020).

In the US, 47 states have at least one property tax exemption or credit program with significant variation in their criteria for eligibility, the types of taxes affected, and whether the tax loss is funded by state or local governments (Lincoln Institute of Land Policy, 2019). In the case of a percentage of property value method, the exemption is more valuable to homeowners with more valuable homes, while a reduction in flat dollar amount favors homeowners with less expensive homes. In addition, the homestead exemption can target different groups of taxpayers, for example, low-income residents, seniors, people with disabilities, or veterans. Some states may also set an upper limit on the value of homes that can qualify for exemptions (Smart Asset, 2020) while in some states it is an automatic benefit and in others, homeowners must apply for it (Investopedia, 2020). Finally, the impact of exemptions and credits on property tax depends on how the programs are funded, through state or local funding whereby state funding can help mitigate disparities in property wealth across localities (Lincoln Institute of Land Policy, 2019).

Strengths and Limitations

A homestead exemption can help protect a home from creditors in the event of a spouse dying or a homeowner declaring bankruptcy, as well as provide surviving spouses with ongoing propertytax relief (Investopedia, 2020). The exemption is designed to provide both physical shelter and financial protection which can block the forced sale of a primary residence. However, it does not prevent or stop a bank foreclosure if the homeowner defaults on their mortgage. In addition, by removing a part of a home's value from taxation, the exemption benefits lowerincome residents whose property is increasing in value. This last scenario is particularly important in order to protect working-class homeowners from seeing their housing costs increase by a substantial amount if they live in a gentrifying area undergoing rapid property value increases.

On the contrary, tax exemptions, like other tax relief programs, can negatively impact some

lower-income neighborhoods as they often lead to higher property tax rates, especially under locallyfunded programs where jurisdictions raise taxes to offset the drop in the tax base from the exemptions (Lincoln Institute of Land Policy, 2020). Furthermore, residents must prove ownership of property, requiring a clean title for the property. In many low-income communities, families have inherited homes over generations, with many family members involved, and through this process the title is often lost or entangled. This is important because it particularly affects lowincome and minority families, and in many cases families who have been marginalized over generations. Finally, the stipulations of the act may intersect with issues of limited financial literacy, as residents may be unclear about what tax exemption they can claim, resulting in paying higher taxes than what they are legally obliged to pay.

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Vignette

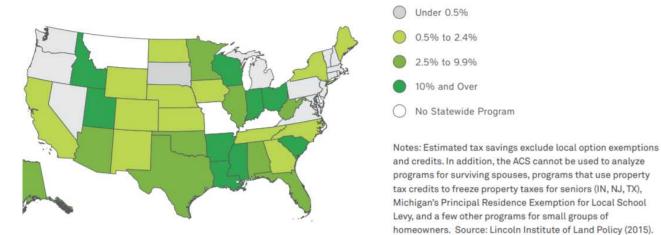
State of Georgia, USA and Atlanta, Georgia

The State of Georgia offers homestead exemptions to all qualifying homeowners with some counties increasing the amounts of their homestead exemptions through local legislation (the State of Georgia, 2020). In general, according to the standard homestead exemption, the home of each resident of Georgia may be granted a \$2,000 USD exemption from county and school taxes. This amount is deducted from the 40 percent assessed value of the homestead. In addition, individuals of 65 years of age and over may claim a \$4,000 exemption if their income does not exceed \$10,000 USD for the prior year. Moreover, individuals 62 years of age and older may claim an additional exemption for educational purposes (the State of Georgia, 2020). Disabled veterans are also eligible and may be granted an exemption of \$60,000 USD plus an additional sum from paying property taxes for country, municipal, and school purposes.

Low-income groups can benefit from homestead tax exemption when their home increases in value, with gentrification processes as a prime example. However, in the case of a dramatic increase in property value, the rising cost of living and the arrival of high-income neighbors may induce displacement among long-time residents. In Atlanta, a Property Tax Homestead Exemption was on the ballot as a referral on November 3, 2020. The referendum questioned the establishment of a new homestead exemption from the City of Atlanta in the amount of \$30,000 for each resident of the city.

In general, there seems to be a lack of understanding of how tax systems work and what exemptions you can qualify for among the residents of Atlanta, "Many other neighbors who have been able to scrape together to buy their houses are paying taxes they aren't really required to pay because they don't know how these processes work" (Interview with a member of the Conservation Fund, 2018).

TOTAL TAX SAVINGS FROM PROPERTY TAX EXEMPTIONS AND CREDITS AS A PERCENT OF TOTAL PROPERTY TAX REVENUES IN STATE (2012)



2012 data on total tax savings from property tax exemptions and credits as a percent of total property tax revenues in state. Source: Lincoln Institute of Land Policy, 2015

Homestead tax credit/tax exemption

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Aimed at homeowners

Limitations or freezes to property tax increases

Definition

Property taxes are taxes paid to local governments from land and property owners and are usually calculated by a local government and based on the value of the property. A limitation or freeze to property tax prevents property tax increases that would affect eligible taxpayers. A property tax limitation program may be applied at a city level or to a specific area through an overlay, as is the case of Dallas's Neighborhood Empowerment Zones, and may be given directly to homeowners to reduce their tax burden or to housing developers to incentivize the production of affordable housing for renters. A tax limitation policy may also work by changing how home values are assessed, as is the case with homestead exemptions which allow qualifying homeowners to exclude a portion of home value from value assessment resulting in lower property taxes.

When a community sees an increase in development, property values rise resulting in higher property taxes for homeowners. In neighborhoods experiencing re-investment, homeowners with steady expenses for decades are suddenly unable to afford the dramatic increase in property tax and may face involuntary displacement. When provided directly to homeowners, limitations or freezes to property tax increase are policy tools that cities can use to protect residents who are at risk of displacement due to their rising property taxes. Cities that have policies that provide property tax limitations or freezes directly to homeowners usually require households to demonstrate income eligibility and a significant length of homeownership, as is the case with the Philadelphia Longtime Owner Occupants Program (LOOP). Property tax limitations or freezes may also be specifically designed to serve groups of especially vulnerable homeowners, such as senior citizens, disabled veterans, or those who have had a spouse die through programs such as homestead exemptions. Alternatively, local governments may charge fees and taxes to developers and property owners in order to raise revenue and then reinvest it into community and city services through land value capture. This financing tool permits redistribution of part of the revenue generated by higher-end developments to pay for social services such as affordable housing, transportation, or sanitation, and it is especially useful in developing countries that often struggle to provide basic infrastructure and services for their growing population (World Resources Institute, 2020).

Property tax limitations or freezes may also be given to housing developers whereby the policy is placed on new construction which theoretically would encourage the production of affordable housing units. With more available affordable housing units, rent is reduced and residents indirectly benefit from more available units and reduced cost of living. Occasionally these programs will also incentivize developers to provide other community benefits, as demonstrated in Atlanta where a lease-purchase bond financing program "provides property tax abatement for projects that lead to job creation and/or retention and workforce housing in the City of Atlanta" (Midtown Alliance, 2020).

Strengths and Limitations

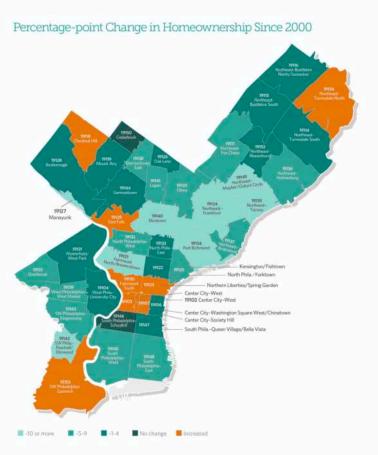
Property taxes represent a large expense for most homeowners and do not go away when a mortgage is paid off, making property tax freezes and limitations a robust tool to ease financial pressures on homeowners in places with high levels of homeownership. Because property taxes still generate some dividend of revenue for cities when tax caps are applied, the taxes paid by low-income and vulnerable residents still benefit the city. This balance can offset any lost revenue that may have occurred from tax abatement programs for vulnerable residents (Dealing with Gentrification, 2020).

Because many property tax limitation and freeze programs require residents to prove the length of homeownership, eligible residents may be prevented from benefiting from these exemptions if they do not have access to clean titles. This becomes a challenge in situations where homes have been passed down informally or shared among multiple family members. In Dallas, neighborhood organizations have partnered with banks and law schools to assist residents in obtaining clear titles to obtain these property tax benefits. Furthermore, if not crafted specifically to support long-time homeowners, property tax reduction can become an incentive to developers and end up benefiting builders rather than homeowners. For example, Cleveland has seen this issue with city-wide tax abatement on new construction which has ultimately incentivized market-rate development rather than affordable housing. The City of Cleveland used tax abatement to incentivize building during a time of slow growth in the 80s. As a result, the tax abatement program which includes a 15-year 100 percent tax abatement maximum for all new construction and acquisition rehabs meant to increase investment in the city and instead has incentivized market-rate development. Longtime residents express frustration that this tool has been utilized by developers in already desirable neighborhoods, such as Tremont, Ohio City, and more recently gentrifying Detroit-Shoreway, rather than in struggling neighborhoods. Used in this way, the tool has provided no benefit to homeowners overwhelmed with raising property taxes and has rather invited new development which is increasing property taxes. Cleveland community members would like to see something like Philadelphia's LOOP implemented.

Vignette

Philadelphia, Pennsylvania

Philadelphia longtime homeowners who make below 150 percent of the median income adjusted for family size can apply for real estate tax relief through the 2014 Longtime Owner Occupants Program (LOOP). Effectively, LOOP works by limiting your home's assessment increase to 50 percent and locking in that assessment for as long as you remain eligible (City of Philadelphia, 2020). This policy has been regarded as effective for the city as "Philly has a very high homeownership rate unlike a lot of cities, so for someone who can see a change in their neighborhood or change coming and has some ability to not be priced out of there, I wouldn't say it's a save all cure-all, but it's a pretty good one" (Interview, 2019). Philadelphia's LOOP recently expanded its 10-year limit on the program so that homeowners will now be protected by LOOP tax limitations for as long as they remain eligible (Merriman, 2020).



Note: For the exact percentage-point change in each ZIP code, see Appendix B. Sources: U.S. Census Bureau, 2000 Census, Summary File 1 (SF-1) Data; American Community Survey, five-year estimate, 2008-2012 © 2014 The Pew Charitable Trusts Changes to homeownership since 2000

Source: PEW Philadelphia Research Initiative, 2015

Limitations or freezes to property tax increases

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Vignette

Dallas, Texas

Previously disinvested neighborhoods of Dallas have recently seen influxes of economic development causing homeowners to feel the pressure of rapidly increasing real estate prices (Cole, 2019). In West Dallas, the city has used tax limitations in different ways to support residents at risk of being priced out of their neighborhoods. In 2020, Dallas invested \$1 million USD from the Housing Trust Fund to initiate Neighborhood Empowerment Zones (NEZ) as a part of a citywide update to the city's Comprehensive Housing Policy Plan (Norimine, 2020). The NEZ combines property tax limitations for homeowners with concurrent property tax limitations for developers whom provide affordable housing. The neighborhoods of West Dallas were identified as one of the Seven Empowerment Zones where developers and landlords are eligible for development fee reimbursements and a 10-year city tax abatement if they construct new affordable housing or contribute through investments in the renovation of existing homes. Other households can benefit if they bring their single-family or duplex rental unit up to code and reserve it for households under 60 percent AMI. Homeowners with qualifying incomes are eligible for tax abatement if renovating their own homes. Current and potential homeowners with jobs in education, healthcare, or protective service with a gross household income under 140 percent AMI, are considered eligible households for homeowner repair and for new construction (City of Dallas, 2020). As Texas is a state known for high property taxes, Dallas has been successful in curbing the pressures of increasing property taxes as a result of gentrification and neighborhood change.



A man walks along Navaro Street in West Dallas.

Source: Alison V. Smith for Kera News, 2018

Limitations or freezes to property tax increases

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Aimed at homeowners

Housing tax credit programs

Definition

Housing tax credit programs are utilized as a financial incentive for private developers and investors to provide more lower-income housing by subsidizing financing, acquisition, construction, and rehabilitation of affordable rental housing for low- and moderate-income tenants (Novogradac, 2020). Such housing tax credit programs are most homogenous among states in the United States, exemplified by the Low-Income Housing Tax Credit (LIHTC) created by the 1986 Tax Reform Act. In the American context, the federal government issues tax credits to state and territorial governments for which state housing agencies award the credits to private developers of affordable rental housing projects through a competitive process (Tax Policy Center, 2020). In order to obtain funding, developers generally sell the credits to private investors. Once the housing project is made available to tenants, investors may claim housing tax credits over a period of time, usually ten years. Eligibility can include many types of rental properties, including apartment buildings, single-family dwellings, townhouses, or duplexes. Projects must comply with income and rent tests for 15 years for which an extended compliance period of 30 years in total is generally imposed (Tax Policy Center, 2020). This stipulation mandates that owners must keep the units rent-restricted and available to low-income tenants for the period of time imposed. At the end of this required period, the properties remain under the control of the owner (Novogradac, 2020).

Strengths and Limitations

A homestead exemption can help protect a home from creditors in the event of a spouse dying or a homeowner declaring bankruptcy, as well as provide surviving spouses with ongoing propertytax relief (Investopedia, 2020). The exemption is designed to provide both physical shelter and financial protection which can block the forced sale of a primary residence. However, it does not prevent or stop a bank foreclosure if the homeowner defaults on their mortgage. In addition, by removing a part of a home's value from taxation, the exemption benefits lowerincome residents whose property is increasing in value. This last scenario is particularly important in order to protect working-class homeowners from

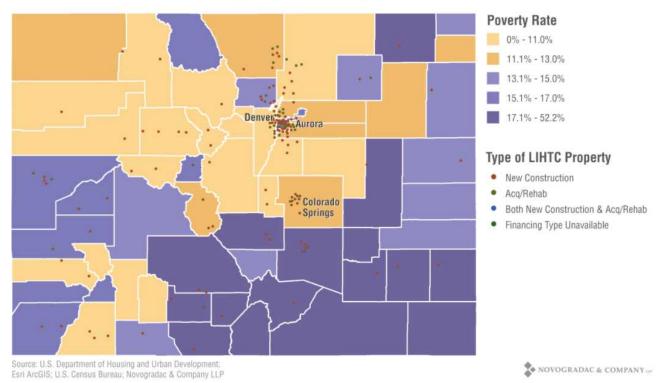
seeing their housing costs increase by a substantial amount if they live in a gentrifying area undergoing rapid property value increases.

On the contrary, tax exemptions, like other tax relief programs, can negatively impact some lowerincome neighborhoods as they often lead to higher property tax rates, especially under locally-funded programs where jurisdictions raise taxes to offset the drop in the tax base from the exemptions (Lincoln Institute of Land Policy, 2020). Residents whose financial literacy is limited might also be unclear about what tax exemption they can claim, and might thus end up paying higher taxes than what they are legally supposed to.

Vignette

State of Colorado, USA

The LIHTC has provided over \$2 billion USD in equity for affordable rental housing in Colorado since program conception in 1986 (CHFA, 2020). Here, tax credits are allocated by the Colorado Housing Finance Authority (CHFA) which administers the LIHTC program in accordance with the 1973 Qualified Allocation Plan (QAP). Moreover, CHFA provides education and technical assistance regarding affordable housing and economic development to communities (CHFA, 2020). Overall, it offers financial resources to strengthen homeownership, provide needed affordable rental housing stock, and support small businesses. For the year 2020, CHFA has awarded \$16.1 million to 14 developments that will support the construction of 940 affordable rental housing units (National Council of State Housing Agencies, 2020). These developments will be built in different regions of Colorado including the Denver Metro Area, San Luis Valley, northern and southern Front Range, and surrounding mountain communities (National Council of State Housing Magencies, 2020).



LIHTC Properties and Poverty Rates in Colorado

LIHTC Properties and Poverty Rates in Colorado.

Source: US Department of Housing and Urban Development through Novogradac, 2020

Housing tax credit programs

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Anti-displacement

Financial scheme

Aimed at homeowners

Loans for homeownership for middle/lowincome residents

Definition

In order to support homeownership amongst low or middle-income residents and first-time buyers, loans for homeownership are provided by state and national governments (Provan et al., 2017). These governmental loan options include subsidies and less stringent requirements than private loan companies in the form of lower cash deposits, lower credit score requirements, or voucher subsidies for loan payments. Loan options can also be issued by private lenders and then regulated by government bodies or lump sum payments offered in conjunction with loans to assist with making a first down payment (Ville de Montréal, 2018). In some countries, concessions also include tax breaks depending on how many dependent children under the age of 18 and whether they are looking to buy a large unit.

Strengths and Limitations

There are several social and wellbeing benefits for individuals when encouraging homeownership through loans, with evidence suggesting outcomes such as wealth accumulation for households, improved wellbeing for children, and higher levels of social capital in neighborhoods (Provan et al., 2017). Furthermore, homeownership has important impacts on social aspects such as social status, citizen self-worth, and improved mental health and wellbeing.

In terms of limitations, there are also many that negate potential benefits if the loan policies are not implemented with the appropriate accompanying measures. Firstly, there is controversy over to what extent loans stimulate housing supply and improve the possibility of homeownership, or whether they work to inflate housing prices in a market with insufficient supply (Provan et al., 2017). Secondly, there is a question over to what extent these schemes actually encourage lower-income, first-time buyers, as opposed to buyers that would have been owners anyway, only at a younger age (Bottazzi et al., 2012; Finlay et al., 2016). Such loan schemes may be used by households that would likely take out a conventional mortgage in the future anyway and are not contributing to expanding social mobility.

Vignette

Montréal, Quebec

Montréal's Home Ownership Program, implemented in partnership with the Quebec provincial government, facilitates first-time buyers to purchase lower- and middle-income housing and aims to help tenants buy property in the city. The City of Montréal states that this program improves the overall quality of life for households, indirectly encourages developers to build more affordable housing, and increases owner-occupancy so that buildings are better maintained and neighborhoods potentially revitalized (Ville de Montréal, 2020). It, however, assumes that households have the capital to make a downpayment on a mortgage, thus limiting access to low-income groups.

Another financial scheme in Montréal that attempts to offer an affordable housing option to those who qualify is the Accès Condos program, which provides a 10 percent purchase credit to assist in buying a condo (Accès Condos, 2020). The program stipulates a minimum transaction required from the buyer as \$1,000 Canadian dollars (CAD). For a \$200,000 CAD condo, the mortgage would be \$179,000 CAD with a \$20,000 CAD purchase credit provided by the government. If the owner resells the property after five years and the price has increased sufficiently, the original purchase credit must be reimbursed, along with ten percent of the increased value. (ibid, 2020). The affordable nature of the Accès Condos programme is questionable. In a local study that calculated available mortgage rates against condo prices, it was found that median household incomes would remain comfortable in the program while low-income households would struggle financially (Tim Ho, 2014). One community housing activist echoed this critique, stating that while condos are deemed to be affordable, they are sold under false pretenses with mortgage rates going up after they quickly expire after five years (Interview, 2019). Despite intentions to improve social mobility and household stability, financial loan and credit programs aimed at increasing homeownership remain largely inaccessible for low-income households and have the potential to contribute to processes of gentrification.



Frontenac Real Estate Complex in Ville-Marie, and accredited Accès Condos project, to be developed in 2023.

Source: Accès Condos, 2020

Loans for home ownership for middle/low-income residents

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Financial schemes

Aimed at homeowners

Development tax paid by developers towards an affordable housing trust fund

Definition

When constructing or redeveloping on a parcel of land, a municipality may apply a development tax to all construction costs involved in the new development. The funds collected from this tax may be applied to specific projects, including a trust fund to construct affordable housing or directly toward the creation of affordable housing (Billings, 2019; City of Sacramento, 2004; City of San Diego, 2020; Stanton, 2020). These programs, also known as linkage programs or affordable housing trusts, help to raise funds for housing creation that may provide a variety of housing forms and within an affordable price range. In many cases, developers may be able to provide affordable housing units directly in lieu of paying a development tax.

Strengths and Limitations

Development taxes that are directed toward affordable housing can be a highly effective tool for municipalities to gather finances that benefit the construction and development of much-needed affordable housing. Through the addition of more housing stock, particularly housing stock in a variety of housing forms, such as townhouses and duplexes, residents can benefit from more affordable and appropriate housing situations. Furthermore, existing affordable housing stock will not be overcrowded or overstressed, allowing for existing stock to be maintained and improved. Overall, development taxes that fund housing trust funds are a powerful mechanism for promoting health equity amongst low-income households such as homeless people, the elderly, and victims

of domestic violence (Housing Trust Fund Project, 2016).

While the program presents significant benefits in achieving municipal goals for affordable housing stock, many city officials and planners fear that the application of development taxes on developers may negatively impact growth as developers will be less likely to apply for development in cities with such overhead costs (Avault, Lewis, and Consalvo, 2000). Cities with development taxes may be less attractive to developers, and so these developers may choose to pursue development in other municipalities. This then creates uneven development pressures amongst cities, particularly in situations where cities are adjacent and geographically close together.

Development tax paid by developers towards an affordable housing trust fund

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Vignette

Boston, Massachusetts

Since 1983, Boston's Development Impact Project (DIP) has collected development tax or linkage fees from large scale development projects to benefit affordable housing and provide job opportunities to lower-income residents (Siedman, 2016). In 2016, through the funding scheme, Boston provided 19.7 percent of funding to affordable housing projects (2016). Additionally, through the linkage funds and as part of the Acquisition Opportunity Program, the City has purchased several existing private high-density developments in order to protect them with permanent income restrictions (Boston Real Estate Times, 2020). Overall, the City of Boston has successfully funded several anti-displacement programs for almost 30 years through developer linkage fees, in part due to the flexible payment period and structure offered. By allowing developers to pay on a 7- to 12-year window and through operating revenues as opposed to 'upfront' equity investment, the City has collected affordable housing contributions every year since the creation of the program (Avault, Lewis, and Consalvo, 2000). The expansions and diversity in anti-displacement programming made available by linkage fees posit Boston as a leader in using development taxes as an anti-gentrification tool.



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Morton Village Apartments - an apartment building part of the Acquisition Opportunity Program that provides permanent income restriction on previously privately-owned units.

Source: Boston Real Estate Times, 2020

Development tax paid by developers towards an affordable housing trust fund

Vignette

Sacramento, California

Following the lead of Boston, the City of Sacramento adopted a Housing Trust Fund Fee (HTFF) in 1989 in order to "provide loans, grants, or other subsidies to nonprofit and for-profit housing developers, governmental entities, and individuals to develop new or substantially rehabilitated affordable housing for low-income and very low-income households whose members are in the labor force, with priority given to very lowincome households" (City of Sacramento, 1989). This fee is calculated on the square footage and type of use of a commercial building in the development. After several years of successful application of the HTFF, the City of Sacramento has also included the Housing Impact Fee (HIF), adopted in 2015, as means to further support the mission of the Housing Trust Fund and as a response to increase demand from incoming workforce populations to the city. The HIF contributes to the City's Housing Trust Fund through fees on the development of residential units and depends upon the location and type of residential project. In comparison to many cities, Sacramento's development fees are on the lower end in California, however, the Sacramento Housing Trust Fund has assisted in the creation and attainment of 3,095 affordable homes since the conception of the plan (BAE Urban Economics, 2016). In the future, the City of Sacramento hopes to streamline complexities in applying fees to mixed-use projects as the City continues to promote such zoning.

HOUSING IMPACT FEE

Housing Type	(per Square Foot)
Single-unit and duplex dwellings (less than 20 dwelling units per net acre)	\$2.78
High density single-unit and duplex dwellings (20 dwelling units per net acre or more*)	\$0.00
Multi-unit dwellings (less than 40 dwelling units per net acre)	\$2.78
High density multi-unit dwellings (40 dwelling units per net acre or more*)	\$0.00
Conversion of a nonresidential building to a residential use	\$0.00
Dwelling units in the Housing Incentive Zone (See Figure 1)	\$1.20

<image>

*Annual Increase Tied to the San Francisco Construction Cost Index

On the left, variety of linkage fees by housing type applied to developers in Sacramento. To the right, delineation of zones where the Housing Impact Fee applies.

Source: League of Cities Policy Committee, 2019

Development tax paid by developers towards an affordable housing trust fund

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-inancial schemes

Aimed at homeowners

Transfer tax on luxury property with funds directed towards affordable housing

Definition

In the United States, the top 1 percent of households own around 40 percent of the nation's wealth, while the bottom 90 percent own just 21 percent; a similar situation persists all around the world. A tool that can contribute to decreasing the scale and speed of gentrification and social inequalities as well as support availability of affordable housing and spread the wealth across the society is implementation of a transfer tax on luxury property (Leachman and Waxman, 2019). In practice, this means that properties that are being sold above a certain amount or fall into the top few percent thresholds set by policy-makers are charged additional tax by the local council or the national government (Choi et al., 2018). The finances received from this tax are then directed to funds used by councils to build or secure affordable housing.

Strengths and Limitations

One of the direct benefits this policy can secure is the generation of revenue for establishing affordable housing in cities (Collins, 2018; Leachman and Waxman, 2019). In cities like Boston alone, this tax could generate nearly \$200 million a year directly for affordable housing creation (Haynes, 2019). This can take the pressure off the local councils to include affordable housing in their overall budgets ensuring allocation for affordable housing is not vulnerable to budget cuts. In addition, by requiring additional tax on potential buyers of luxury homes, local municipalities are slowing down the rate of gentrification (Mullings, 2020). If the costs are higher, the developers are not constructing unnecessary new mansions and high-end buildings because the demand for them decreases. Rather, the developers focus on building properties that are more affordable thereby slowing gentrification pressures. In addition, by applying this tool, the local tax system becomes fairer by shifting some of the responsibility for funding affordable housing and investments from low- and moderate-income taxpayers to those best able to pay (Leachman and Waxman, 2019). Similarly, this can have an impact also on racial inequalities and discriminations.

On the other side, there are certain impediments to this tool. Firstly, depending on the country's legal system, the transfer tax on luxury properties can be applied only locally. This can result in developers and buyers preferring cities that apply lower tax or do not have it implemented in the system at all; however, the evidence supporting this claim of tax migration is weak. Secondly, the policy-makers need to consider many details in the design and operation of the tax, such as choosing the right threshold, determining what types of properties would be included, assessing property values at market rates, and estimating the potential impact on the real estate (Choi et al., 2018). This can result in a lengthy and expensive process before the tax can become an official policy. Thirdly, by increasing the total price of luxury homes, city councils can face an increase in vacant properties. Also, policy-makers and municipalities can experience pressure and disagreement with the application of the transfer tax from luxury property developers, property agencies, markets, and buyers. Finally, as the funds for affordable housing are directly connected to the amount collected through the tax, they can vary annually.

Transfer tax on luxury property with funds directed towards affordable housing

Vignette

Boston, Massachusetts

At the end of 2019 the Boston City Council controversially approved the two-percent transfer tax on luxury properties on sales over \$2 million. On one hand, the mayor, councillors, non-profit organizations and local communities welcomed the tax as it could generate almost \$200 million a year for affordable housing for which the city faces an urgent shortage of. On the other side, developers did not agree with tying a tax to the ever-changing real estate market and newly implemented sustainable housing plan (Haynes, 2019). Nevertheless, the transfer tax on luxury properties can solve the also increasing issue of gentrification in Boston. According to the National Community Reinvestment Coalition, Boston is the third most gentrification pressures between 2013 and 2017 (Mullings, 2020). As a result, residents from several Boston districts are suffering from overcrowded units and eviction filings which are currently exacerbated by COVID-19 cases among communities of color, who are affected the most. Despite the urgent need for this tax, as of November 2020 the tax has not been approved by the State of Massachusetts yet.



One Dalton - residences in luxury towers such as this one could raise millions of dollars for affordable housing funds.

Source: Orde, 2020

Transfer tax on luxury property with funds directed towards affordable housing

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-inancial schemes

Aimed at homeowners

Tax on foreign ownership of units

Definition

Tax on foreign ownership of a property is a tool used by policymakers at the municipal, provincial, state, or federal level to disincentivize property value speculation and consequential distortion of the residential housing market. In many global and attractive cities, real estate is a viable option for foreigners to invest in profitable markets or benefit from more flexible tax regulations. In order to protect existing housing stock and affordability for local residents, policymakers apply a one-time purchase tax or annual property tax on homes owned by foreigners and/or non-residents (Burgoff, 2017; City of Vancouver, 2018; New Zealand Parliamentary Counsel Office, 2018). This tax may also be extended to manage vacancy as a result of the property being a secondary residence or property speculation. Through a variety of taxes that target foreign investment, policymakers hope to curb skyrocketing property value and market prices.

Strengths and Limitations

Taxes on foreign homeownership, in situations where housing prices are quite high, help to dissuade foreign investors in buying property and speculating on its property value over a period of time. Through this preventative system, more homes may be made available to local residents needing to purchase or rent a home that is both affordable and appropriate for their family size. Additionally, taxes on foreign home-ownership may indirectly increase local development and construction of housing as lower property values are more accessible to developers seeking profits on their margins

On the other hand, such taxes on foreign homeownership must be implemented after considerable research and community consultation so as to ensure foreign homeownership is contributing to issues of housing affordability and availability as several concerns regarding the feasibility and overhead costs of running such a program are common. Additionally, concerns that the tax may not be feasible as homeowners may fake their residency or occupation of a home may surface. As a result of such additional taxes, property investors and potential home-buyers may feel as if they are being penalized for their wealth or may consider the affected real estate zone no longer attractive as a result of such a tax, which could have a significant impact on the economy of the zone in question (Shaw, 2019). Finally, policymakers must actively work to ensure that such taxes on foreign homeownership do not overstep a fine line to xenophobia and nationalism.

Tax on foreign ownership of units

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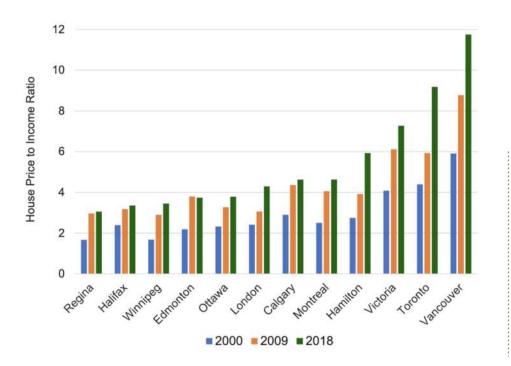
Vignette

Vancouver, British Columbia

Vancouver is consistently ranked as one of the most expensive real estate markets in the world and the most expensive market in Canada (Gaviola, 2019b). Considerable real estate capital in the city is sourced from foreign owners, particularly from China and Hong Kong, with 19.2 percent of all condos owned by a non-resident of Canada and 6.5 percent of housing empty or underused (Hager, 2017; Ip, 2019). Furthermore, one in every four homes is valued at over \$3 million CAD or more, leaving it mostly impossible for middle- and working-class residents to own property or be able to pay increasing property taxes (Gaviola, 2019a). As a means to reduce such a housing affordability and scarcity crisis, the Province of British Columbia implemented the Additional Property Transfer Tax for Foreign Entities and Taxable Trustees in 2018, taxing 20 percent of the fair market value of the property (Province of British Columbia, 2018). As a result of the foreign homeownership tax, prices in the affluent municipality of West Vancouver have gone down 17 percent (Pearson, 2019).

In addition to the foreign ownership tax, the Province also later implemented a Speculation and Vacancy Tax of 2 percent of property value for foreign owners (Province of British Columbia, 2020). In an effort to offer options to improve housing availability, the Province offers an exemption to the foreign ownership vacancy tax by encouraging rental tenancy of the property. With this exemption, many properties have been rented to tenants and the tax mainly affects expensive luxury homes and mega-mansions (Shaw, 2019).

The tax has been met with a mostly positive response by residents of Vancouver and surrounding cities in the area (Chan, 2020). While partly successful in reducing home prices throughout the area, current homeowners have expressed their concerns over the reduction in property value of homes they had owned prior to the tax. Even with such considerable policy interventions to foreign investments, many Metro Vancouver residents have made calls to ban foreign investment in residential property altogether. As such, attention to the 'foreignness' of these investments has caused a shift to xenophobia and anti-Chinese sentiments throughout the Metro Vancouver region, leaving many Chinese-Canadians feeling displaced socially from their greater community. Despite the anti-displacement intentions made when implementing foreign-buyer taxes, many longtime residents continue to feel the social and economic pressures of the Vancouver housing crisis.



Average house-price-toincome ratios in select Canadian cities from 2000-2018, with Vancouver displaying the highest ratio.

Source: Gordon, 2020

Tax on foreign ownership of units

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inancial schemes

Aimed at homeowners

Tax on vacant housing units

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Definition

A tax on vacant housing is a citywide, or in some cases country-wide, tax policy that requires property owners to pay a fee for unoccupied housing units. The objective of the tax is to ensure available housing in a city is utilized. The definition of vacancy is at the discretion of the jurisdiction determined by a minimum amount of time unoccupied. The tax is usually calculated as a percentage of the property value. The revenue from the vacancy tax is often used to build affordable housing or provide services for the unhoused, as is the case of Vancouver. In several cities in the United States, including Oakland and Washington D.C, a tax on vacant housing units is a part of a larger tax policy that also taxes unbuilt land and vacant commercial property.

While a margin of housing vacancy is healthy in an urban real-estate market, when the rate becomes too high, it may reveal a myriad of deep-rooted housing issues as well as a threat to the housing market (McClure, 2019). In depopulating, or shrinking, cities such as Detroit, MI, or Hartford, CT, housing vacancy may be a result of property abandonment and low demand for housing. In a growing development-market city like Paris or Vancouver, a vacant unit may be held as an underutilized second home or rental property which acts as an artificial shortage pressure on housing. Additionally, the overbuilding of luxury sector real-estate may be a factor in the reduction of housing stock, as these properties remain unaffordable to much of the population (Mosley, 2020) and some also remain empty, bought as fixed assets by foreign investors, as exemplified by luxury towers in New York City or Boston (Collins, 2018; Thompson, 2020). In both types of cities, the vacancy can also be attributed to speculation, where property owners hold onto property assuming it will increase in value, a common occurrence in gentrifying areas.

Strengths and Limitations

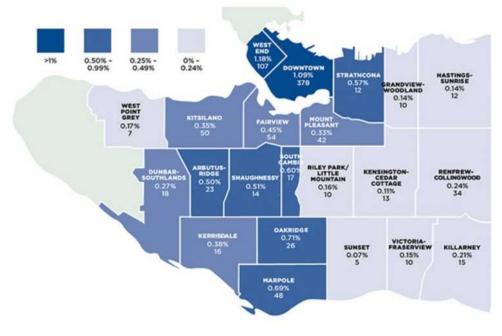
The application of taxes on vacant housing ideally encourages landowners to make more units of housing available to renters thereby increasing the overall housing stock. By disincentivizing property speculation, this tax has the potential to be especially valuable in cities dealing with a housing shortage. In dense cities where it is difficult to construct new housing, this tax provides a possible way of increasing supply without development. If the increased taxation does not discourage landowners to keep their property vacant, the tax revenue can provide important funds to affordable housing. In Vancouver, the vacancy tax bylaw brought in an annual revenue of \$29 million CAD for housing projects in its first year (McAfee, 2020). In order to utilize a vacancy tax and evaluate its success, it is essential to have accurate ways to determine the vacancy of the property. This is challenging when the system relies on selfreporting. Additionally, while there are different types of vacancy, this tax does not treat these types differently. Because of this, a grandmother holding onto a family home for future generations would be fined the same rate as a real estate developer holding onto a housing unit to turn a greater profit. Finally, some housing policy researchers are hesitant to connect the relationship between rent prices and vacancy, stating that addressing vacant units would not improve a city facing housing affordability challenges despite increasing housing stock (McClure, 2019).

Vignette

Vancouver, British Columbia

Vancouver currently has one of the lowest rental vacancy rates and the highest rental costs in Canada (City of Vancouver, 2020). As a part of a larger policy initiative to address housing affordability, Vancouver currently taxes vacant housing units through an 'Empty Houses Tax'. The goal of the EHT is to return empty or underutilized properties to the long-term rental market for Vancouver residents. This tax which was approved in 2016 requires all owners of Class 1 residential properties to submit yearly status declarations related to occupancy. If the unit is occupied less than half of the year and does not qualify as exempt (exemptions include homes undergoing major renovations and owners in care facilities) a tax on vacant property is added on to existing property tax at 1 percent of the property's assessed taxable value. Audits and fines for false declarations are in place in order to prevent fraud (City of Vancouver, 2020).

The city reported the vacancy tax bylaw brought in annual revenue of \$38 million CAD for housing projects in its first year. This revenue is then invested in services for affordable housing support for the unhoused. Using recommendations from an online platform that allowed Vancouver residents to make suggestions on how they felt the revenue would best be used in relation to affordable housing, the City was able to develop a budget for the allocation of these funds which included support for vulnerable renters through rent protections and improvements to low-income housing. In 2017, the Canada Mortgage and Housing Corporation (CMHC) reported only a slight increase in the primary rental market vacancy rate for the City and region from 0.8 percent to 0.9 percent within the city. The City of Vancouver acknowledges that it is difficult to measure the success of the policy as the rental market is dynamic (the City of Vancouver and Housing Vancouver, 2017); however, despite this, the tax is the first of its kind in North America and is setting a precedent for several other North American cities including San Diego and Honolulu (McAfee, 2020).



Percentage of vacant properties compared to total number of properties in Vancouver based on the selfdeclarations from homeowners in 2018.

> Source: City of Vancouver, 2020

Tax on vacant housing units

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Vignette

Paris, France

In 1998, the Prime Minister of France instituted a law that placed a flat tax fee of 12.5 percent, increasing to 25 percent after the first year, on vacant properties in desirable cities of France, including Paris (Décret N° 98-1249 Du 29 Décembre 1998 Relatif Au Champ D'application De La Taxe Annuelle Sur Les Logements Vacants Instituée Par L'article 232 Du Code Général Des Impôts | Legifrance, 1998). The purpose of the tax was to encourage homeowners in larger cities (more than 50,000 residents) to include long-term vacant homes (those empty for more than one year) in the rental market. In Paris, the tax particularly targets second homeownership and property speculation. In 2016, Paris had 100,000 vacant units, nearly half of which are no longer connected to the city's electric grid (O'Sullivan, 2016). As of 2019, the city reported that around 27 percent of Parisian homes remained vacant and is currently considering further increases to the existing tax rate (City of Paris, 2019). In 2017, the city received €20 million as a result of the tax (O'Sullivan, 2017) and in 2020, the tax will collect €61 million throughout all French cities (Fingonnet, 2014).



According to a local journalist, a housing unit in Place des Vosges, one of France's most exclusive residential areas, has been vacant since 1965.

Source: Davies, 2012

Tax on vacant housing units

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Aimed at renters

Rent control at the municipal, regional, and national level

Definition

Rent control is a legal restriction that consists of limiting the amount that a landlord can demand for leasing a home or renewing a lease (Investopedia, 2020). At the State level, it obliges all landlords in cities through the state (or region) to abide by the terms of the law, having thus a greater scope and impact, especially so when high housing costs extend to more than one urban area.

In general, rent control laws have two related goals: to maintain existing affordable housing and to limit disruptions caused by rapid rent increases. Rent controlled apartments create an incentive for residents to remain in their current apartments instead of moving, impacting the distribution of population in a changing city (Glaeser, 2020). Moreover, such laws might also have secondary goals, for example protecting tenants from unjust eviction, decreasing tenant turnover, or enhancing mixed-income neighborhoods (Urban Institute, 2019). Although rent control may constrain housing supply, policies can be tailored to avoid this, for instance by ensuring that landlords receive enough compensation to maintain their properties and earn a reasonable profit.

Strengths and Limitations

Rent-control policies produce a variety of effects, including the primary reduction of rents for the tenants they target. As the rent prices in many cities worldwide are rising faster than wages for moderate-income jobs, rent control allows residents on fixed incomes to live decently and without fear of eviction due to rent hikes (Investopedia, 2020). In return, the possibility to remain in gentrifying neighborhoods, among others, and save up for other purposes improves economic opportunities for long-term residents. Overall, lower-income residents are thus able to remain in their houses even when a city is getting more expensive, also preserving the mixed-income character of many neighborhoods (Glaeser, 2020). What is more, residential stability is associated with positive physical and mental health outcomes, especially for children (Urban Institute, 2019). In addition, with a base of long-term residents in rent-controlled apartments, neighborhoods are often safer and more stable, and tenants can preserve their neighborhood-specific social capital, such as networks of friends and family or proximity to a job (Brookings, 2018).

On the other hand, rent control is often criticized by economists who argue that it reduces the supply of decent housing and investment in new rental housing, as landlords are discouraged from declining profits (Glaeser, 2020). In addition, maintenance of buildings under rent control can be of poor quality because of the decreased return on investment for landlords. Moreover, rent control can also lead to a 'mismatch' between tenants and rental units, where tenants who have secured a rent-controlled apartment may choose to keep their apartment in the future and not give up their rent control home, even if their income is higher (Diamond, 2018). Racial and income disparities are also a concern, as rent-stabilized apartments appear to be most popular among white, longterm, and older tenants, and therefore they may not be allocated to the applicants most in need (Glaeser, 2020). As a result, promoting stability may, over time, lead to a growing mismatch between people who live in rent-controlled apartments and people who need them the most (Urban Institute, 2019).

Rent control on municipal, regional, and national level

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Vignette

Vienna, Austria

The City of Vienna has been upholding the principle of housing as a human right since the "Red Vienna" period of the early 20th century. During this time the majority socialist government prioritized the creation of affordable housing for working-class residents. During this period the city used rent control as a tool to keep housing prices low and build city-owned social rental housing. Today, the City of Vienna continues to uphold this legacy of affordable housing. About 70 percent of the housing stock is regulated and rent-controlled and all rental contracts are unlimited, which implies a high level of tenant protection.

There are three types of landlords: the municipality, Limited-Profit Housing Associations (LPHAs), and private market-rate housing providers. The city government directly owns and manages about 25 percent of the city's housing stock as social housing. These rent-subsidized units are intended for middle- and low-income families and individuals (Hud User, 2020). LPHA housing is another form of subsidized housing that is indirectly controlled by the municipality. These units are developed by limited-profit private developers through a cityregulated process. To ensure the construction of high-quality affordable housing, the city allows private developers to submit proposals to develop city-owned land designated for affordable housing, and the city will then sell the land to the winning developer at an affordable rate. Proposals are evaluated by a jury based on architectural quality, environmental performance, social sustainability, and economic parameters. Once constructed, these units are all protected by the Limited-Profit Housing Act which sets parameters for setting fair rent prices and managing repairs and quality. These units, which are controlled and represented by an LPHA organization, and the regional government are open to city residents with any income (Marquadt and Glaser, 2020). The collaboration between private-sector and public policy in LPHA housing provides long-term high-quality rent-controlled housing.



The Kabelwerk LPHA housing project in Vienna with embedded rent control practices.

Source: Pamela Lindstrom through HUD

Rent control on municipal, regional, and national level

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Vignette

Portland, Oregon

For years, climbing rents have posed serious problems for tenants in Oregon, especially in its largest city, Portland (iProperty Management, 2020). To tackle the rent crisis, Senate Bill 608 was passed on the state level in February 2019, establishing how much landlords can raise rent and making it harder for them to evict tenants without a reason. The bill limits rent increases to 7 percent each year, in addition to inflation. The rent cap does not apply to buildings that are less than 15 years old, nor to government-subsidized rents. In addition, the bill limits a landlord's ability to evict tenants without a reason after they have lived in a property for at least one year. However, landlords can still evict tenants if they violate the terms of their lease, or in the case of plans to upgrade the building or demolish it. A member of an organization working on affordable housing and displacement in Portland reported that "it's a first step that will prevent some of the most extreme big rent increases that people have been seeing, but it still allows landlords to raise the rent which is going to probably keep pricing a lot of people out" (Interview, 2019).



Supporters of the bill demonstrating on the Capitol Steps in Salem, Oregon, 2017. Source: Andre Selsky, The Wall Street Journal, 2019



A graffiti denouncing high rents in Barcelona. Source: Alex Garcia, La Vanguardia, 2020

Vignette

Catalonia, Spain

In September 2020 the Catalan Parliament passed the Law on Urgent Measures for Rent Control, applying in 60 Catalan municipalities with more than 20,000 inhabitants in neighborhoods considered as areas under stress, including where rent prices exceed 30 percent of average household income (El Nacional, 2020). The law aims at limiting rent increases and establishes that new contracts signed on properties that were already rented cannot exceed the price agreed in the previous contract. In addition, rent control is applied to prices for properties of 150m² or less. The rent increase is limited within 10 percent to 20 percent of a Referenced Index established by Catalan Government. The exceptions to the limit concerns the landlords who have carried out work in the last year to improve the habitability, safety, comfort, or energy efficiency of the property (International Union of Property Owners, 2020). The new rule also exempts new or just-refurbished dwellings, as well as vulnerable homeowners whose incomes equal to or are less than 2,000 or 2,500 euros per month, depending on the municipality.

The opponents of the bill denounced that property owners, developers, and estate managers have not been consulted and claim that the bill is unconstitutional (Spanish Property Insight, 2020). In Catalonia, where almost all of the housing stock is privately owned and social housing or subsidy policies scarce, the responsibility for housing affordability is thus passed on to the property owners (International Union of Property Owners, 2020) rather than on the State.

Rent control on municipal. regional, and national level

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Aimed at renters

Rent subsidies or vouchers

Definition

Rental subsidies or vouchers are primarily used in the North American context and provide aid to struggling and qualified households living in rental units. Subsidies or vouchers are distributed either through a tenantbased program or a project-based program. In the United States, the federal Tenant-Based Housing Choice Voucher (HCV) program is for qualified families to receive rental subsidies in a housing unit, and neighborhood, of their choice and is administered by local public housing agencies through the residentbased program model (U.S. Department of Housing and Development, 2018). The amount of money granted through this program is dependent on the applicant's income and is adjusted if an applicant experiences an increase or decrease in income, by covering the difference between 30 percent of the adjusted household income and the fair market rate (Schwartz, 2014). More specifically, family income cannot exceed 50 percent of the median income for the area, and 75% of vouchers granted by PHA's must be to applicants whose incomes do not exceed 30 percent of the area median income (U.S. Department of Housing and Development, 2018). The subsidy is paid to the landlord directly by the PHA, and the household is then responsible for paying the difference (2018). This subsidy program is designed to help those in extreme financial circumstances, living paycheck to paycheck, and at high risk of eviction.

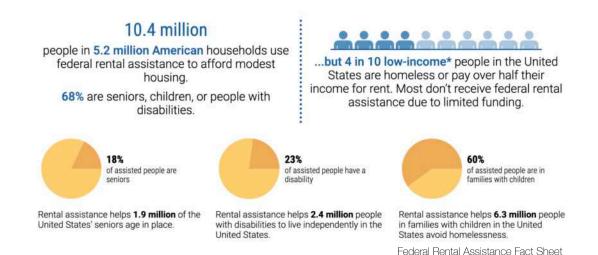
Project-Based Vouchers are similar to tenant-based vouchers in function, however are only applicable to specific units as opposed to being mobile with the tenant. The project-based voucher difference between 30 percent of the family income and the gross rent cost for the unit (U.S. Department of Housing and Development, 2018). While Tenant-Based vouchers will continue to aid the household if they relocate to a new unit, Project-Based Vouchers terminate their aid if or when the household leaves the specific unit (2018).



Public housing in Washington, D.C.

Source: BCNUEJ, 2019





Source: Center on Budget and Policy Priorites, 2019

Strengths and Limitations

Tenant-based vouchers have appeal in that they allow tenants to live, theoretically, in any neighborhood or available unit they choose while paying a subsidized rent cost. The concept for this program arose out of criticism of project-based rental assistance programs, such as public housing, in the mid-1980s, which were seen as being too costly and would concentrate low-income families in high-poverty areas (McCarty, 2008). With tenants being able to "choose" their neighborhoods, historic patterns of segregation and consequential disparities in regard to health outcomes, education, and employment opportunities, were aspired to be mitigated and ideally eliminated.

Contrary to the aspirations of a tenant-based voucher programmatic approach, studies have found that voucher holders typically reside in predominantly minority neighborhoods and that the location of affordable rental units constrain the potential for voucher holders to access middleclass neighborhoods (Schwartz, 2014). Furthermore, tenant-based vouchers and subsidies are based on the income of the tenant, as opposed to the cost of living of the intended neighborhood. So, if a tenant is residing in a unit that increases in price, the subsidy that the tenant-based voucher holder is receiving is not increased as the subsidy is based on both tenant's income and the "fair market rate" cost, instead of the actual cost of the tenant's unit. As a result, gentrification pressures and increases to rent, tenant-based voucher recipients are further rent-burdened, paying over 30% of their income on rent cost and likely pushes the tenant into a displacement situation (Ellen, 2019). Additionally, income requirements of subsidies are problematic in that they put pressure on individuals to remain severely low income in order to continue to receive the subsidy. Finally, the reach of such federal programs often is not widespread and effective as 4/10 low-income people in the U.S. are homeless or pay over half their income on rent and most do not receive federal rental assistance due to limited funding (Federal Rental Assistance Fact Sheets, 2019). In summary, while rental subsidies or tenant-based vouchers can positively impact households that are extremely low income and rent-burdened, this tool seems less relevant as an "anti-displacement tool" and in fact may contribute to denying social and financial mobility for low-income tenants.

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Vignette

Philadelphia, Pennsylvania

In January of 2020, a new program was piloted which provided monthly rent vouchers of \$300 or less to help tenants who are both spending over a third of their income on rent and also live in income-restricted properties (Blumgart, 2020). This \$2 million USD city-funded program is administered by the Philadelphia Housing Development Corporation, a non-profit which recently merged with the Philadelphia Redevelopment Authority. Beyond vouchers, they are also aiming to create more affordable housing using the Low-Income Housing Tax Credit to target subsidized housing in low-income neighborhoods in anticipation of federal funding for the HCV program to decline (Congressional Budget Office, 2018).



The Ruth Williams House at Broad and Boston Streets in Philadelphia has 88 units for those in need of affordable housing.

Source: Kimberly Paynter, WHYY, 2020

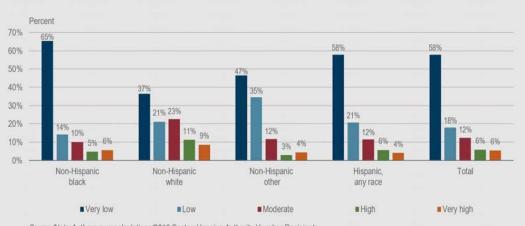
Vignette

Boston, Massachusetts

A study performed by the Federal Reserve Bank of Boston found that many Boston-area families receiving voucher housing assistance faced discrimination while looking for available units (Reserve Bank, 2015). The study interviewed 128 families as they were looking for apartments with a Housing Choice Voucher, and most notably found that while Black households "used more search strategies and sought out more apartments", they had less success and encountered "greater obstacles" in their housing search (2015). Specifically, 80 percent of Black participants experienced landlords who denied their vouchers, while 57 percent of non-Black participants were only offered to view an apartment unit a little over half of the time (Ma, 2019).

In response to the result of the report in an attempt to make the rent voucher system in the city more equitable, the City of Boston created the first city-funded rental voucher program in the US (City of Boston, 2020). This program provides "funding permits" to low-income individuals and is designed to offer support to a larger number of families and individuals that was previously made available to residents through the federal government's subsidy program (City of Boston, 2020).

In addition to the city-based program, the Alternative Housing Voucher Program funded by the State of Massachusetts is also available for disabled, non-elderly applicants as an approach to ensure age and ableism is not an issue in receiving support (Commonwealth of Massachusetts, 1995). Unlike other programs, this voucher program is not implemented based on area median income; instead, all eligible candidates pay only 25 percent and 30 percent of their monthly income on housing regardless of the area median income of their neighborhood.



Access to Opportunity Neighborhoods Across Greater Boston for Voucher Holders by Race

Source/Note:Authors own calculations/2016 Boston Housing Authority Voucher Recipients. The sample includes 8,476 BHA households. Excluded from this sample are households with vouchers that serve special populations (such as veterans only) or come with special services.

A 2015 study by the Federal Reserve Bank of Boston found that race and ethnicity increased discrimination in the search and opportunity for housing in the city.

> Source: Federal Reserve Bank of Boston, 2015

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-inancial schemes

Community focused

Investment incentives in specific areas

Definition

Revitalization of urban downtowns or core districts is occurring throughout global cities as a result of previous decades of disinvestment and recently increased development pressures in dense urban centers. Municipalities may designate certain districts or areas within the city as specific areas where investment incentives are put in place in order, in principle, to revitalize the economic and social capacity of the urban geographic area. Such revitalization is meant to be accomplished at the community municipal, state, or national level through a variety of mechanisms that function to improve financial, social, and housing wellbeing in specific areas.

Qualified Opportunity Zones (QOZ) were adopted and implemented in 2017 at a national level in the United States and are defined as part of "an economically-distressed community of a population of 30,000,000 or more where new investments, under certain conditions, may be eligible for preferential tax treatment" (Internal Revenue Service, 2019). By reducing taxes owed to the government on investment or development in the area, the program is aimed to "move capital across America in a more inclusive fashion" (Simon, 2019). Tax Increment Financing (TIFs) is a similar place-based economic development strategy used in places such as Chicago or Denver which allows the city to redistribute revenue from taxes to development projects once a threshold of tax revenue is reached within the TIF geographic zone (City of Chicago, 2010). This redistributed revenue is used to pay upfront costs or can be used on a pay-as-you-go basis for the intended development projects (2010).

Utilizing similar tax-reduction strategies as QOZs, Special Interest Zones (SIZ) are mechanisms used in places like Brazil in 2002 to reduce housing expulsion, secure housing tenure, and improve existing infrastructure. This is accomplished through local government powers and tax-reduction strategies, similar to other investment incentives already discussed (Yamaguti and Denaldi, 2020). Also implemented at a national government level, Strategic Development Zones (SDZ) in cities like Dublin has been enacted to fast-track development and improve economic capacity in areas of special economic and social importance through a holistic and traditional plan-led approach (South Dublin County Council, 2016).

Unlike organized investment incentives previously described, Business Improvement Districts (BID) function at a community level as a non-profit organization and are "geographically defined [areas in which a] majority of property owners and/or merchants agree to provide an extra level of public service by imposing an added tax or fee on all of the properties and/or businesses in the area" (Elmedni et al., 2018). These services may include street cleaning, security services, general maintenance, and event development and may be provided in partnership with a municipality (City of Vancouver, 2019). In Nantes, France, public development on land is made possible by the zoning mechanism ZAC (Zone d'Aménagement Concertée), or zone of concerted development (Sebastion and Simon, 2018). This zoning tool relies on public and community participation in the development of new housing stock. It has been highly effective in encouraging consultation between public authorities and private promoters who resisted Zone à Urbaniser en Priorité (ZUP), or areas that were to be urbanized as a priority. It has also worked as an effective mechanism to standardize state controls on urban development decisions.

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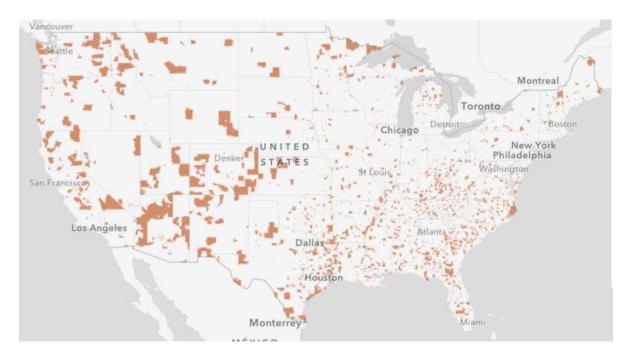
Strengths and Limitations

In the short term, QOZs and BIDs may provide improvements in physical appearance, foot traffic, or the cleanliness of a neighborhood. Such improvements may result in an increase in the value of a property, a benefit more exclusively harnessed by existing property owners. In the case of BIDs, increased safety measures may help to decrease crime which also may increase property values. In terms of housing, both SDZs and SIZs may increase rental housing stock and provide affordable and appropriate housing to communities in need, if they include legal provisions for those types of housing units.

However, over the longer term, the frequent increases in property value that tend to occur as a

result of investment incentives in specific areas tend to price out and displace small-business owners and long-term residents by big businesses and new, higher-income residents through processes of gentrification (Elmedni et al., 2018). Put differently, QOZs and BIDs have been seen as a way to encourage market-price real estate development rather than equity-driven community development. In many instances, developers receive financial incentives to build in underinvested communities, but their real estate projects end up being more targeted to existing or new upper-income residents (Immergluck and Balan, 2017). Such changes have also been known to spill over into adjacent neighborhoods through a dynamo effect (2018).

National map of Opportunity Zones in the United States, with 81,700 gualified census tracts



Source: Economic Innovation Group, 2018

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Vignette

Atlanta, Georgia

In 2017, the mayor of Atlanta selected 26 census tracts in the southern and southwestern areas of the city as QOZs with the aims to "(a) through economic development to attract private investment and improve the city's built environment, including the development of affordable housing; (b) through entrepreneurship, to promote initiatives that assist small business owners and developers; and (c) through workforce development, to provide quality job opportunities for those living and working in the City's Opportunity Zones" ("Atlanta Opportunity Zone Displacement Risk Analysis", 2020). Despite intentions to improve and revitalize the QOZ neighborhoods, it is unclear if QOZ investments are contributing to the community economy or residents as many residents noted investors were not engaging with the community (Abello, 2020). In other designated areas, potential mission-driven projects struggled to find appropriate investors as higher returns were sought out (Abello, 2020). Furthermore, green amenities added as part of the development plan made possible by the opportunity zone produces higher land and housing costs, such as in the case of the Atlanta Beltline (Immergluck and Balan, 2017). A Residential Displacement Risk Analysis, conducted by the development group APD-U found varying levels of displacement were occurring in the affected neighborhoods ("Atlanta Opportunity Zone Displacement Risk Analysis", 2020). The firm hopes to engage with Atlanta QOZ residents to stabilize the community (2020).



New development in Atlanta juxtaposed to existing housing.

Source: BCNUEJ, 2019

Vignette

Navy Yard, Washington D.C.

Navy Yard, a previously industrial and federally-owned district situated on the Anacostia River in Washington, DC, has been the focus of recent municipally-funded revitalization through environmental and economic means. This revitalization has been taking place through the clean-up of the Anacostia River and waterfront and the introduction of highdensity mixed-use commercial and residential properties accompanied by several green spaces (Mock, 2015). In just a few years, the neighborhood has changed so drastically that many developers and business owners have attempted to change the name to the Capitol Riverfront, so as to make the neighborhood more attractive to potential developers and new residents. The neighborhood is led by the Capitol Riverfront Business Improvement District (CRBID), a non-profit organization that acts on behalf of business owners and property tenants to achieve the vision of the Capitol Riverfront as the new downtown of Washington, D.C. (Capitol Riverfront BID, 2020). Despite benevolent intentions, its redevelopment strategies may be exacerbating gentrification pressures as a result of the increased attraction to the neighborhood. These pressures already seem to be spreading directly across the river to Anacostia, a historically Black neighborhood, where gentrification is already raising housing prices, property taxes, and costs of living which all contribute to the displacement of long-term residents (Anguelovski, 2019).



The changing urban fabric of Anacostia, Washington, DC demolition of Barry Farms public housing development.

Source: BCNUEJ, 2019

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-inancial schemes

Community focused

Regular support to housing coops and other non-profit housing organizations

Definition

Non-profit housing is typically funded by a government subsidy that covers the initial development, as in Canada, or by direct subsidies that help cover costs of construction and management, as commonly practiced in Scandinavian countries. Some non-profit housing is designated low- to moderate-income housing, with income limits being imposed on their members, while others have no income limits and can have a broader range of incomes among their residents. There are three different types of non-profit housing structure: market-rate (membership and shares can be bought or sold at the market price), limited-equity (restrictions on what outgoing members can get from the sale of their shares), and leasing cooperatives (zero-equity).

Co-operative housing (co-ops) is a form of non-profit housing that emerged in the 1800s as a result of housing shortages at the end of the First World War, and more prominently after the Second World War (Canada Mortgage and Housing Corporation, 2018, Torontoist, 2014). Co-op housing is a form of tenure that falls between pure rental housing, in which the tenant has limited rights and no ownership of the unit, and private homeownership while co-operative housing is governed by its members. Organized to act as a democratic community, members decide on how the co-operative should operate and grow. Hence, members are not landlords or tenants, but they work together to govern their association. Co-op members elect the board of directors that govern the co-op's affairs and that might hire staff members to manage the day-to-day tasks. One of the leading countries in the co-operative movement is Germany, with 1805 housing co-operatives (2,781 housing companies in total) with 2,160,000 dwellings as of 2016 (Co-operative Housing International, 2020).

Strengths and Limitations

Co-ops offer their members many advantages that are often unavailable in other forms of housing. These include security of tenure, active participation in decision-making processes within the community, and a life within a diversified community of people (Co-operative Housing Association of BC, 2020). Economic advantages include affordability, tax deductions, consumer action, and limited liability (National Association of Housing Cooperatives, 2020).

While co-operative housing by its nature embraces a diversity of communities, including people of diverse ages and backgrounds, living in a co-op may also present a challenge as it often requires more social effort and discussion of financial decisions than in an average house or apartment building. In addition, without the continued financial assistance provided by government programs, co-operative housing could cease to be affordable for all the residents. Moreover, the possibility for the exclusion of low-income households may occur as government legislation can allow for the co-op entities to allow tenants to buy and sell units on the open market at market price. While such models encourage private investment by individuals, they might induce affordability challenges, as the cost of purchasing a co-op unit has risen substantially which in turn may find some households without the necessary funds to afford their housing (Canada Mortgage and Housing Corporation, 2018).

Regular support to housing coops and other non-profit housing organizations

Vignette

Vienna, Austria

The City of Vienna has a remarkable history of social housing and governmental control of the housing market and has successfully contained gentrification through a variety of pro-tenant policies (BCNUEJ, 2019). As of 2018, more than 50 percent of the housing stock is municipal or social housing, preventing large-scale housing displacement and ensuring social sustainability. Additionally, innovative and comprehensive social housing projects which incorporate public green space have been made possible as a result of the coordination of environmental protections and city housing policies (Cucca, 2017).

In Vienna, there are two providers of affordable housing: the council and the limitedprofit associations. The latter are owned by public authorities, charity organizations, parties, unions, companies, banks, or private persons. Limited-profit associations, regulated by the Limited Profit Housing Act, receive public funding from the government in the form of subsidies that oblige them to cap collected rent from tenants; moreover, the profit made through rental income must be reinvested in new building projects (CapaCity, 2017). Overall, the income threshold for eligibility for subsidized housing in Vienna is quite high which allows for a social mix in housing and prevents gentrification and segregation (Spacing, 2017).



Example of limited-profit housing in Vienna.

Source: BCNUEJ, 2019

Regular support to housing coops and other non-profit housing organizations

Vignette

Amsterdam, The Netherlands

While social housing constitutes almost 35% of Amsterdam's housing stock, the city is still in need of alternative methods to provide affordable and adequate housing (BCNUEJ, 2018). Recently, Amsterdam's city council created a loan-fund of 50 million euros with repayment terms of 10-15 years to support the development of housing co-operatives (Co-op news, 2020). These limited-equity housing co-operatives are available to people with low and moderate incomes and include restrictions on resale that ensure the units remain affordable. As part of Amsterdam's new Housing Co-operatives Action Plan (Actieplan Wooncoöperaties Amsterdam, 2020) "groups [will be able] to build their own houses or to create their own co-operatives in existing buildings" in an attempt to reduce affordability challenges (Interview 2019). Another community member highlighted the importance of building new units, especially for middle-income people as "middle-income people would argue there's too much social housing but not [not all is available] due to the income limit" (Interview, 2019). By 2025, the council estimates that 7,000 co-operative housing dwellings will be available to residents in need (The City of Amsterdam, 2020).



Properties owned by a housing corporation in Loenenmark borrow in Amsterdam.

Source: BCNUEJ 2019

Regular support to housing coops and other non-profit housing organizations

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Anti-displacement policy responses

Other regulations and ordinances

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Definition

Formal recognition of the right to stay or right to return policies are designed to ensure that the original residents and those with long-term connections to gentrifying neighborhoods are able to receive affordable housing within their communities. These strategies include assistance to renters, home buyers, and existing homeowners.

New renters may be provided housing through affordable housing preference policies which prioritize housing for residents from groups that have been impacted by displacement. The city may also provide its own payment assistance for home buyers that have been historically prevented from purchasing homes or have faced financial pressures that are associated with gentrifying neighborhoods. Eligible homeowners may receive financial assistance from home retention programs for those who are at risk of displacement. These tools aim to create housing opportunities so that "people get to return and we return the family-based culture, that we return with the culture and the ceremonies that we had, that we return with relationships because that's what it was all about" (Interview, 2019).

These policies can be implemented in different capacities. In some cases formal recognition of the right to stay or right to return policies come from a city agency, in the form of a package of city-sanctioned policies focused on protecting vulnerable communities in a specific neighborhood or neighborhoods as is the case of Portland, Oregon's N/NE Neighborhood Housing Strategy led by Portland Housing Bureau or Austin, Texas's Right to Stay and Right to Return Program for East Austin. City agencies may also partner with nonprofits to carry out these policies. In other cases, a city agency or affordable housing developer may use a right to stay or right to return policy for a specific redevelopment project. In Washington DC's Arthur Capper and Carrollsburg project for example, the Washington Housing Authority guaranteed to re-house residents of the razed housing project in newer affordable homes within the same neighborhood.

Strengths and Limitations

These policies formally recognize the importance of honoring generational and emotional connection to place. They acknowledge that it is a necessary challenge for cities to preserve the existing community in changing neighborhoods. Because formal recognition of the right to stay or right to return policies often responds to histories of marginalization, they represent cities reinvesting in communities that have been harmed. For long-term residents facing instability in their neighborhoods, right to stay or right to return tools can offer possible measures of security.

Cities using or attempting to use this tool have found that despite their positive intention, these policies can be difficult to implement. A planner from Seattle notes it is technically illegal to give preference to some people for affordable housing over others (Interview, 2019). In Seattle, the city has attempted to use an affirmative marking approach to reach out to current residents who may be more vulnerable and less likely to seek affordable housing options within their neighborhoods. Because these policies rely on an adequate supply of housing options, they are limited in the number of people they can support (unless the programs directly involve the construction of new housing). Cities are challenged in determining requirements and evaluating needs for those who are eligible to receive assistance. Some cities, such as Portland, have application processes that involve point systems and proof of ancestral connection to the neighborhood. Finally, a fundamental challenge with formal recognition of the right to stay/return tools is that many of these policies assume that residents *want* to stay in or return to their gentrifying communities. They do not address the challenge residents will face as they continue to live in their changing neighborhoods. Unless entire communities are supported and offered housing security through the right to stay or the right to return, these neighborhoods will inevitably face changes in culture and affordability that may impact the desire of long-term residents to stay.

Vignette

Portland, Oregon

Portland has a long history of racial discrimination in housing. Redlining policies in the 20th century concentrated most of the city's Black population in the Northeastern neighborhood of Albina. Despite low-incomes and deteriorating housing stock as a result of racist employment and financial policies, Albina flourished as a Black community. In the following decades the community faced constant changes and disinvestment in the name of the redevelopment as the city razed homes to build Memorial Coliseum, then Interstate 5, and Emanuel Hospital. In each case, thousands of residents were displaced without replacement housing, despite the city promises. Following all of these changes, in 1989 the area was targeted for revitalization due to its state of decline. With revitalization came increased housing prices and significant demographic change. When in 2013 a development was proposed that would disrupt another historically African American neighborhood, community leaders called for investments from the city to prevent further displacement. This activism led to a decision for \$20 million in urban renewal funds to support affordable housing in the area. After an extensive community outreach process the Portland Housing Bureau developed The N/NE Neighborhood Housing Strategy (City of Portland, 2020b).

The N/NE Neighborhood Housing Strategy includes loan assistance for home repair, down payment assistance for first-time homebuyers, and the creation of new affordable housing. All of these tools are available with a priority to households who had their homes taken by the city through eminent domain or who have received points based on a system that identifies a former or current address within areas identified to have been impacted by the city's racially discriminatory decisions (City of Portland, 2020a). In practice in the case of Albina, not all residents have been able to benefit from the right to return policy as cost to purchase of a home has remained unattainable and/or official documentation to prove ownership of the property is not available due to generational/informal inheritance of the property.



Portland Resident Dianne Causey In front of her home bought her first home through Portland's "Right to Return' policy.

Source: Melanie Sevcenko through The Guardian, 2018

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Vignette

Glasgow, Scotland

In 2005, Glasgow Housing Association (GHA), the largest non-profit affordable housing agency in Scotland, Glasgow City Council, and the Scottish Government partnered to re-develop eight neighborhoods identified as Transformational Regeneration Areas (TRAs) (Glasgow Housing Association, 2020). Large social housing blocks were demolished from many of these sites as they were deemed to be in poor condition due to deliberate stigmatization and undermaintenance. The City of Glasgow reported that residents were involved in community engagement throughout the process of regeneration, although this was heavily critiqued by many activists and local community members.

When residents were forced to leave due to housing demolitions, a legal right to return requirement made them eligible for new housing on the same site, in the same neighborhood, or elsewhere in Glasgow (Lawson and Kearns, 2017). According to the city's housing department, "sons and daughters of those folk who've got local connections will have the ability through the allocation process to move back in if that's what they want" (Interview, 2019). In Sighthill, the largest of Glasgow's TRAs, 141 of the existing 416 households chose to remain in the neighborhood and are being provided with housing in the regenerated community. However, in some TRAs the amount of social housing being built in the new mixed income housing developments is a fraction of the original amount. Furthermore, due to the scale of intervention, the regeneration process in each area can take up to a decade, meaning that households who do want to return will in the meanwhile be uprooted elsewhere in the city. While the goal of the right to return is to prevent the community from changing completely when new housing is built, it undoubtedly has room for improvement.



Margaret, a community activist and resident of Sighthill stands in front of her old home before its demolition.

Source: Leslie, 2016

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Municipality or tenant opportunity to purchase act

Definition

Tenant Opportunity to Purchase Act (TOPA) is a policy implemented by municipalities to protect rental tenants living in multi-family buildings to collectively purchase their residence building, on the occasion that the landlord is planning to sell (All-in Cities, 2020). The tool offers cities an affordable method to preserve rental housing stock whilst simultaneously being able to provide a buffer against gentrification and displacement. In practice, purchasing rights of a home extend to a number of situations including all government-assisted apartments with city funding or requiring approval by the city to be funded, or regardless of funding source, and all apartments regardless of whether the property has received government subsidies (The Uprooted Project, 2020). When TOPA is applied, housing must be sold at a price equivalent to the preexisting subsidized renting costs with available loan financing options where national nonprofits assist in financing the purchase (ibid, 2020). For the process to be successful, tenants need substantial financial support and technical assistance.

Strengths and Limitations

The tool provides an obvious benefit as an antidisplacement tool by allowing tenants, nonprofit organizations, and districts to purchase the housing stock and maintain it as affordable, particularly in instances where residents would likely be displaced due to no longer affordable rent prices (Lloyd, 2015). Equally, where landlords might be inclined to privately sell the building on the basis of a likely increased profit outcome as the area gentrifies, this act gives rights to tenants otherwise at the mercy of the free market. In these cases, perhaps the building would be sold to a developer who would likely renovate the building or knock it down and rebuild entirely in order to increase profit margins on rented apartments, which would no longer be affordable to original tenants. Additionally, TOPA policies empower tenants to move from a rental to a homeownership situation (Brey, 2020).

Regretfully, such a policy can fall prey to the trappings of free-market fundamentalism. The tool has the potential to be co-opted to encourage private individual ownership at the depletion of public housing stock, exemplified by the UK Right to Buy which was intended to provide low-income renters with opportunities for increased stability through gaining a tangible asset but instead compounded a housing shortage for low income and subsequent houses crises all over the UK as a result of private developers buying out social housing (Kleinhans & van Ham, 2013; UK Government, 2020). One interviewee running for Mayor in Bristol explained that the right "in itself is fine...you can buy your own home but the law said that then the council who sold that home couldn't then use that money to buy or build a new home" and that this was at the core of the problem (Interview, 2019). Furthermore, such right to purchase policies do not protect tenants from a governmental Eminent Domain acquisition, which enables the government to legally displace renting residents or force owners to sell, if the land in question is to be taken and developed for the "greater public good" (Caves, 2005). Upon analysis of these limitations, it is clear that leadership in the municipality or governed area must be willing to work with and support anti-displacement efforts in order for such policy measures to be effective.

Municipality or tenant opportunity to purchase act

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Vignette

Washington D.C., District of Columbia

As the first city to enact the TOPA policy over 30 years ago, Washington DC has used the law to protect renters from being evicted from their homes by landlords who wanted to sell. Under TOPA, the tenant(s) have 90 days to negotiate a contract to purchase and an "affordable unit" is determined by accommodation where the current monthly rent, including utilities paid by the tenant, is not greater than 30 percent of the monthly income of a household at 50 percent of the area median income (Government of the District of Columbia, n.d.) A number of cities in the US operate the same or similar programs that apply to affordable or subsidized housing, but Washington DC's TOPA includes private rental housing making it one of the "nation's oldest and most comprehensive polic[ies]" (All-In Cities, 2020). A 2013 DC Fiscal Policy Institute report found the program was responsible for approximately 1400 affordable housing units remaining with low-income renters between 2002 and 2013 (Reed, 2013). Much of TOPA's success is connected to the establishment of the Housing Production Trust Fund, which aids property acquisitions under TOPA. Currently, policymakers look toward proposing similar funding schemes to further support low-income tenants, ensuring a generally greater success with this policy.

The story of the Adams-Morgan neighborhood in Washington D.C. is one of the first examples of a tenant opportunity to purchase policy used as an anti-gentrification tool (Lloyd, 2016). In the 1970s, the neighborhood faced developer-led gentrification pressures, where whole streets were being purchased for development. Particular displacement concern was experienced on Seaton Street, which included simultaneous housing construction that would result in higher profits per property over the long term (ibid, 2016). None of the tenants of Seaton Street had been offered the first right to refusal, a right allowing them the first offer to buy the property before it would be put on the market, despite requirements by rent control law. In an effort to halt evictions and utilize TOPA requirements to stimulate the tenants' opportunity to purchase their property through first right to refusal, a local community group called the Adams-Morgan Organization (AMO) successfully raised \$5,000 USD per family through fundraising, savings, and grants to provide down payments for loans and closing costs on the properties (ibid, 2016). Through community action and understanding of tenant rights, the Adams-Morgan neighborhood resisted early gentrification and displacement pressures as well as later attempts of red-lining by the local and state governments (ibid, 2016).



Properties estimated at just over \$1million in Seaton Street, Washington DC.

Source: Redfin, 2020

Municipality or tenant opportunity to purchase act

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Definition

In many cities in the EU and US, the pressure on affordable and social housing has increased significantly over the past few years, pushing middle-income households out of city centers where work is often located for essential public workers, such as teachers and firefighters. Since the global financial crisis of 2008, reductions in public spending on affordable housing has led to a lack of investment in affordable housing, further compounding the housing crisis for essential workers (European Commission, 2019). Moreover, the prices of undeveloped land have increased in city centers, where demand is high and work is concentrated (Sissons, Andrews, and Bazeley, 2020). Economic and societal issues of unemployment, wage stagnation, and racial bias further exacerbate a housing availability and affordability crisis (Aalbers, 2004; Parlow, 2016; Zillow, 2017). As a result of these compounding issues, there is a growing need for what has been called 'public workforce housing' to help public sector workers access affordable homes in cities.

Public workforce housing is a means to increase the financial possibilities for public workers to afford to live in increasingly unaffordable city centers, whilst providing their workforce services to the city. It is implemented by municipalities in a variety of ways, including giving priority to registered public workers for already existing social housing on the basis of income limits for new housing developments through publicprivate partnerships (City of Boston, 2017; Gemeente Amsterdam, 2020).

Strengths and Limitations

Social and affordable housing has increasingly become privately-owned while middle-income households have particularly been pushed out of dense metropolitan areas (Parlow, 2016). Consequently, one of the strongest contributions of public workforce housing is that it is able to (partially) counter the negative effects of housing market forces in relation to the geographical location of urban development: "The issue is not how much affordable housing is produced but where it is produced, as well as how to address the challenges of producing it where it is needed" (Haughey, 2002, 2). Through government-led development of public workforce affordable housing, more housing stock can be made available in locations central to the city and public workers can contribute to services and economy more efficiently.

On the other hand, government-led or-owned public workforce housing arguably provides only symptomatic and partial relief on a housing market that is under continuous pressure (e.g. Boston: Acitelli, 2020). Moreover, often incredibly complex arrangements are made between public and private stakeholders in order to make public workforce housing function. In Boston, for example, a large workforce housing project required "the coordinated efforts of some 25 cities, state and federal agencies to stitch together a complex web of financing involving low-income housing tax credits, bond financing, state, and city housing trust fund contributions, and a property tax break" (Prevost, 2017). In sum, although public workforce housing can relieve the pressure on affordable housing to some extent, it has not proven sufficient in countering pervasive housing inequalities in metropolitan areas.

Public workforce housing

Vignette

Amsterdam, The Netherlands

In Amsterdam, the average price for a house went up from €200,000 in 2000 to more than half a million euros in 2019 (Ten Teije, 2020). Simultaneously, social and affordable housing has been under high pressure, with long waiting lists and a lack of promised new affordable projects, causing significant financial pressure on public workers to live and work in the city (Couzy, 2019). Now that the city is faced with a shortage of public workers, with estimates that around 2,550 healthcare workers are needed to meet 2021 population demands, the city has proposed a plan of action to attract public workers to continue working and living in the city (Sevil, 2019). One of its measures is to give priority to 200 teachers and healthcare workers each year, registered through their employer, to enter social and affordable housing within the city's system of social housing (Gemeente Amsterdam, 2020). While providing an opportunity for many public workers, this program also increases pressure on affordable housing for other lowincome and middle-income households who are not direct employees of the public realm. As an interviewee from a civic group stated: "40% of the housing that is allocated to social housing in Amsterdam is already going to [priority groups]...what about prostitutes, artists, or mechanics, or whatever job that is not [directly] necessary for the city" (Interview, 2019). In the case of Amsterdam, further participation by the public in conjunction with robust housing affordability policies or programs are needed to alleviate the housing crisis.



The Javastraat in the neighborhood of Amsterdam-Oost, where social housing, affordable housing, and privately-owned houses are mixed.

Source: Van Beem, 2016

Public workforce housing

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Other regulations and ordinances

Equitable economic development plans with opportunity for equitable access to jobs

Definition

To improve job access for low income or minority residents, bodies of government and policymakers have a number of policies targeted at making economic opportunities more equitable. Equal employment commissions enforce federal laws that determine it illegal to discriminate against job applicants and employees based on race, color, religion, sex, national origin, age, disability, genetic information transgender status, sexual orientation, and also pregnancy (U.S. Equal Employment Opportunity Commission, 2020). Some policies include diversity assurances and minority quotas in filling positions while other initiatives include improving job access by improving transport costs and efficiency, commitments to employing majority local staff, and training opportunities, such as classes for ex-convicts on the structure and good work habits (Finn, 1998). National minimum wage policies or specific city minimum/working wage policies in cities where the cost of living is much higher than other parts of the country also ensure more equitable working outcomes. Planners also have the opportunity to manipulate the urban fabric of the city to economically and socially benefit residents through equitable development planning and community development which ensure equal benefits for original and new residents in the area as a result of economic growth or local development (Von Hoffman, 2019).

Strengths and Limitations

The benefit of such policies is that they minimize barriers prohibiting certain minority groups of people from accessing opportunities for work, creating a more inclusive and diverse working environment (Workfast, 2018). What's more, equity policies have important implications for social mobility factors, as people of color and women are more predominantly earning lesser wages, despite equal work. A pledge to ensure greater equality in the workplace translates to an increased opportunity to be socially mobile and increase one's opportunity for future success potential beyond family experiences.

Yet, equal employment commissions are significantly underfunded and understaffed which leaves the possibility to uphold equity policies and actors accountable sometimes non-existent (Castro et al., 2019). What's more, these laws have been criticized for limiting the scope of antidiscrimination enforcement with laws only being applicable to companies over a certain number of employees (ibid, 2019). In the US for example, more than two-thirds of states have equity policy clauses, including the states with the highest percentages of Back and persons of color residents (U.S. Equal Employment Opportunity Commission, 2020). On the surface, then, it appears as though equal opportunities are effectively implemented and successful in providing improved job access and/or wages; in reality, equal opportunity policies merely exist superficially in a legal capacity but can fail to be effectively implemented where really necessary.

Equitable economic development plans with opportunity for equitable access to jobs

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Vignette

Washington DC, District of Columbia

The 11th Street Bridge Park over the Anacostia River in Washington DC is a comprehensive development plan pledging to ensure equitable benefits for its residents. Set to be complete in 2023, the bridge park will replace the existing bridge, transforming it into the city's first elevated park with "community-generated programming ideas including: outdoor performance spaces; playgrounds; urban agriculture; an Environmental Education Center with classrooms to teach students about river systems; public art that tells the rich history of the region; and kayak and canoe launches" (Building Bridges Across the River, 2018, 5).

In order to ensure processes of inclusive development, where development provides opportunities for all demographics affected by the implementation, the planning team includes planners, non-profit partners, residents, underwriters, and other city stakeholders. Furthermore, the development plan focuses on equitable job opportunity access, small business opportunities, securing affordable housing options, and celebrations of black cultural heritage for current and future residents with lower incomes (Building Bridges Across the River, 2018). Despite its good intentions, residents in the historically Black neighborhood Anacostia nonetheless fear that the proposed equitable development plans might be insufficient to halt gentrification. Indeed, some referred to the 11th Street Bridge Park as a "bridge to gentrification", creating a physical pathway to the gentrified Capitol Hill hip cafés, bars, and projects. Rising housing prices and costs of living, contributing to long-term residents' displacement, are already setting in (Anguelovski, 2019).



11th Street Bridge Park, Anacostia Waterfront. Source: OMA, 2020

Equitable economic development plans with opportunity for equitable access to jobs

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Vignette

Portland, Oregon

The Cully Neighborhood of Portland, Oregon was added to the city as a neighborhood in 1985, without basic infrastructure, facilities, or services. Now, the mainly low-income neighborhood is one of the most rapidly gentrifying areas in the US (Kutz, 2019). To halt gentrification, four local NGOs have started Living Cully, a project that plans to build 140 affordable houses and ground-floor commercial spaces with local residents leading its design, construction, and maintenance. In an effort to employ low-income residents and people of color, the non-profit partner organization Verde has trained over 200 local residents in environment and landscape management (Verde, 2020). Verde Builds, another economic and business opportunity pursued by the Living Cully group, is a licensed general construction company that oversees the conception, design, and development of green infrastructure in Portland. The recent development of Nataka Park, inaugurated in 2019, included a community garden, eco-roof, nature play area, and trails.

In summary, by combining affordable housing projects with environmental investments and local job-creation, Living Cully's inclusive and participatory redevelopment tactics provide a solution against green gentrification while providing an opportunity for local residents to connect and practice employability skills.



Mock up of affordable housing for Living Cully Source: Faunt, 2019.

Source: Van Beem, 2016

Equitable economic development plans with opportunity for equitable access to job

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Equity evaluation of urban projects

Definition

Equity concerns are often neglected in neighborhood redevelopment projects, leading to the marginalization and/or displacement of already disadvantaged communities and groups (Checker, 2011; Eley, 2017; Heckert and Rosan, 2018). To respond to this issue, urban projects or redevelopment schemes can be benchmarked against equity indexes/indicators, otherwise known as equity evaluations. One way in which this is done is through the development of equity indexes, mostly on municipal levels, to quantify the often uneven distribution of socio-environmental amenities and hazards and to subsequently ensure that urban redevelopment is distributed equitably (Pearsall & Pierce, 2010).

Equity indexes/indicators often take the form of maps showing disparities between and/or within neighborhoods. For example, socio-environmental inequalities can be visualized by comparing different levels of access to green spaces in relation to demographics such as minority status, employment status, education levels, and income (Hsu et al., 2018). Similarly, disparities can be shown by tables and charts on poverty levels, demographic data, and housing (e.g. Building Bridges Across the River, 2018). An activist lawyer from Washington DC highlighted that urban planners can use equity indexes to see how "a specific area of the city was up-zoned, and [...] compare it to census data [...] and figure out what happened after" (Interview, 2019). On the basis of such insights, redevelopment projects can be evaluated on the extent to which they counter socio-environmental inequalities.

Strengths and Limitations

One of the strongest contributions of evaluating redevelopment projects against a backdrop of equity is the quantitative perspective of equity indexes/indicators that enables urban planners to move forward or forego redevelopment projects that do/do not comply with equity requirements. As a municipal official in Dallas commented, equity indexes/indicators can demonstrate policymakers "are not making arbitrary decisions, [but instead are] guided by data" (Interview, 2019).

Although noble in intentions to distribute services and amenities to communities of all socioeconomic levels, equity evaluation has been met with a number of issues and concerns. The creation of representative equity indexes/indicators can be impeded by the availability of data, the accuracy of data collected, and the specificity of data (Hsu et al., 2018). In other words, neighborhood data can be quite different from what residents need and perceive, making it important for urban planners to recognize that equity indexes/indicators alone will not solve intersectional problems such as poverty and discrimination in disadvantaged neighborhoods (Eley, 2017; Finn and McCormick, 2011). While data on demographics and socioeconomic factors can be revealing, decisions on equitable distribution of socio-environmental amenities must be conducted in partnership with the local community to reach the best equity outcomes. Equity evaluation of urban projects

Vignette

Vienna, Austria

In Vienna, bidding for the development of housing is a competitive process overseen by the city council's social housing department Wiener Wohnen, and funded in part by the community land trust Wohnfonds Wien (Wiener Wohnbau Forschung, 2017). An official from the city council argued that this system gives them "a lot of new ideas and also [they] are very keen on having innovations" that align with social and environmental equity requirements (Interview, 2019). Criteria for the competition include 1) social sustainability, 2) planning, 3) ecology, and 4) costs (Wohnfonds Wien , 2019).



A housing complex of *Wohnfonds Wien* in the Sonnwendviertel neighborhood of Vienna.

Source: Gurugell, 2016

Vignette

Seattle, Washington

In Seattle, the Seattle's Equity & Environment Initiative (EEI) aims to combat inequities within the city council and in the city itself. Launched in 2015, the EEI formed an Environmental Justice Committee which would review and inform development projects to understand how they serve communities. As part of this committee, the EEI also formed an Environmental Justice Fund in 2017 as "a grant opportunity for community-led projects that improve environmental conditions, respond to impacts of climate change and get us closer to achieving environmental justice" (City of Seattle, 2016). Both of these initiatives are part of a city-wide Equity & Environment Agenda plan, developed in 2016 in partnership with over 1000 residents from a variety of neighborhoods, which aims to provide a standard in racial equity for any aspect of programming or policy produced by the city (2016).

Equity evaluation of urban projects

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Equitable green development

Land use

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Definition

Eco-districts, also known as écoquartiers, eco-cities, zero or low-carbon cities, and carbon-positive cities (Holden and Li, 2014), are neighborhood-scale developments that address climate mitigation and adaptation with sustainable planning strategies (Fitzgerald and Lenhart, 2016). These urban developments employ technologies in green building, smart infrastructure, and renewable energy, with the aim of creating low-carbon and resilient districts. More broadly, eco-districts may potentially support a city's long-term climate change and sustainability planning agenda as they set higher standards for sustainable development throughout a city.

The concept of eco-district can be defined in relation to Sustainable Development Goal 11 that sets to make cities and communities more inclusive, safe, resilient, and sustainable (UN Department of Economic and Social Affairs, 2020). For eco-district planning in cities, "adequate space for streets and efficient street network, high density, mixed land-use, social mix and limited land-use specialization" are five basic principles that represent common features of all eco-districts in sustainable neighborhoods (2020). However, each neighborhood also has its specificities in regards to climate conditions and goals, history of development, economic impact and feasibility, geographical scope, and social aspects of inclusion and benefits (Boquet et al., 2020). In Europe, policy frameworks such as the "Framework for action for sustainable neighborhoods and eco-districts (Flurin, 2017). In addition, the EU also supports the developments of eco-districts by mobilizing funding to support the redevelopment of economically-depressed areas.

Strengths and Limitations

One of the biggest advantages of eco-districts is that they allow planners to experiment with new approaches and technologies on a scale that permits shorter implementation cycles and thus quicker feedback on what is effective and what is not (Fitzgerald and Lenhart, 2016). They represent an urban experiment, limited in terms of land and population, that tests the city's ability to develop a sustainable neighborhood in line with the environmental, social, and economic goals of sustainable development.

The criticism of eco-districts concerns the possible risk of the demolition of buildings and the partial relocation and displacement of residents without sufficient justification. This is coupled with a lack of dialogue with residents when planning or designing eco-districts which may result in projects that are alien to the needs and aspirations of residents, as in the case of Madrid's eco-district Vallecas (Zamora and Carballo, 2018). Moreover, ecodistricts have been criticized for being "islands of sustainability" in privileged, green neighborhoods where issues of traffic, pollution, and housing are peripheral concerns (Zamora and Carballo, 2018). Finally, eco-urban experiments may increase disparities in cities between the engaged and the excluded, especially when they are unable to prioritize affordable housing or integrate vulnerable socio-economic groups into the community (Holden and Li, 2014).

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Vignette

Portland, Oregon

The City of Portland has a global reputation of being a model for sustainability with environmental and sustainability policies dating back to the early 1970s (Loveless, 2018). One of Portland's most environmentally-friendly, diverse, and active neighborhoods is Cully, branded as an eco-district of the city (Enelow and Hesselgrave, 2015). Despite this environmental-awareness and diversity, community members describe the city as "still struggling with equity and with serving low-income and communities of color when it comes to their investments" (Interview, 2019). As a result of these long-standing struggles, a non-profit organization called Verde has worked to create programming that promotes sustainability and social equity. One such project, the Living Cully Weatherization Project (The Cully Weatherization and Home Repair Project 2.0, 2015) aims to lower residents' energy bills by upgrading their homes to low-cost energy systems. Verde claims that this program, among others "has increased income, improved livelihood opportunities, and enhanced access to environmental amenities of low-income people and people of color in the Cully neighborhood" (Enelow and Hesselgrave, 2015).



Vegetables garden in Thomas Cully Park in Portland.

Source: BCNUEJ, 2019

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Vignette

Lyon, France

Emerging in the 1990s, the French Department of Housing grants the label "éco-quartier" to neighborhoods that comply with the principles of sustainable development as laid out by the UN recommendations (Boquet et al., 2020). The City of Lyon, chosen in 2019 as the first capital of 'Smart Tourism' by the European Union (European Commission, 2018), is a French leader in sustainability, climate, and comprehensive city plans. In addition to actions addressing energy, water, waste management, air quality, noise reduction, and access to green spaces (Shokry, 2018), the city's commitments to eco-friendly urban planning involve the creation of eco-districts (Only Lyon, 2019).

The best-known eco-district in Lyon is called La Confluence, named as the first sustainable district in France (Only Lyon, 2019). The project covers a 150-hectare area that the municipality has been restoring since 1998. Once a residential neighborhood located in a former industrial enclave, La Confluence is one of the largest brownfield development sites in Europe (Shokry, 2018). Branded as a new world-class neighborhood, it is meant to attract 16,000 residents into a new mixed-income, mixed-tenure, and mixed-use community before 2030; however, the designations and claims seem to have spurred gentrification in the adjacent working-class neighborhoods in La Confluence district. In Lyon there is a much more limited citizen consultation process. As the city's Director of Urban Ecology put it when describing citizen input over green space, "[residents] do not have full power, but people have a place in the project-- they are allowed to pass on their expectations, needs, etc" (Interview, 2019).



Musée des Confluences.

Source: Galia Shokry, 2019

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Rezoning of urban land to green space

Definition

Zoning is the process of dividing a city, town, or borough into zones reserved for distinct purposes such as residential, commercial, industrial, agricultural, and recreational and zoning laws regulate the uses of the land and buildings. The process of zoning is generally a provincial or municipal responsibility and it is an essential act of city planning as it helps to determine the function of property in specific locations. Zoning regulations determine the density either of population or structure per unit of land. A primary purpose of this form of land-use control is to limit population density and its effects, such as noise or pollution overall, but by doing so it encourages urban sprawl (Zekovic et al., 2015).

Urban rezoning is used when referring to any change in the local laws on zoning, which changes the terms of property use for that portion of land (Zekovic et al., 2015). Nature has long been excluded from cities, but for many people greening urbanized areas has become an increasingly prevalent endeavor. One way is through the rezoning of urban land to green spaces. This also ensures that the land is protected from another use, for instance, that it is no longer in danger of being developed or used for industry.

Rezoning involves revising the land use map and identifying areas, including parcels and corridors with previous uses/zoning, where green spaces can be located. Another way is by identifying brownfields, or formerly industrial land, and rezoning for greening. A notable example of this can be found in San Francisco with the India Basin Mixed-Use District Project (see vignette below). Rezoning often happens as a result of residents putting pressure on local councilors to consider and acknowledge the worth of rezoning urban areas to green spaces (Board of Supervisors of the City and County of San Francisco, 2018; Biennial Internacional de Paissatge Barcelona, 2020).

An example of a city that is making efforts in rezoning urban land to green spaces is Washington D.C., where there is a Green Area Ratio (GAR). The GAR score establishes environmental requirements for landscape elements and design in order to meet environmental performance standards and promote environmentally functional spaces (DCOZ, 2020). It thus requires the zoning code to dedicate a portion of each lot to landscaping. Two other examples of cities that have rezoned some urban areas to green, recreational spaces include Dublin in Ireland, Barcelona in Spain, and Seattle in the United States.



Cristobal de Moura redevelopment of previously industrial land

Source: BCNUEJ, 2020

Rezoning of urban land to green space

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Vacant lot In residential and industrial neighborhood. Source: BCNUEJ, 2019

Strengths and Limitations

On the one hand, this policy tool has many strengths. For instance, as the case in San Francisco later shows, land that cannot be brought to standards for building, such as some old industrial lands, can be optimized by reusing it as green space. This presents a win-win situation as underdeveloped land that cannot be used for development is not left abandoned and is put to some use, and it provides the green spaces that are lacking within cities.

On the other hand, there are several limitations to this policy tool that must be accounted for. Firstly, the city's budget and limited resources are often cited as a major hindrance, not only for the design and construction but also for the ongoing maintenance of the green area. Although this is not specific to this policy tool, it can also be an obstacle to its implementation. Secondly, as the urban population grows, so does the demand for housing, and importantly, social housing. In the case of Bridgefoot Park in Dublin, Ireland, the area was originally zoned as residential in order to provide more residential units given the housing crisis (see vignette below). However, Dublin's City Council also acknowledged the lack of green spaces in the densely populated neighborhood of the Liberties and ultimately the area was rezoned, and the park was built. Therefore, it is largely about reaching a compromise, which is likely to be a long-term process. Thirdly, the ability to build parks has to do with the ownership of land, therefore, the demands to engage in the rezoning process must go to the right and accountable authority. This measure can indeed be a serious source of tension and conflict between different groups of people with opposing demands regarding the contested area. Finally, the rezoning of urban land to green spaces can result in green gentrification, whether the site is used solely for green space or mixed-use (Blackwell, 2020).

Vignette

Philadelphia, Pennsylvania

Philadelphia approved the establishment of a reformed Zoning Code Commission (ZCC), upgrading of the 50-year-old former zoning code which would incorporate new requirements to promote a more sustainable development in Philadelphia and thereby also enable the realization of sustainability objectives under GreenWorks Philadelphia. The new zoning code aims to provide more opportunity for integrated green space in the urban fabric through public amenities, including public art, open space, public plazas, and public parks as well as new sustainable energy forms, such as green roofs, composting equipment and rain barrels, as ways to encourage energy and water conservation.

Of particular note, the plan pushed for more inclusion of urban agriculture, especially in areas that are considered "food deserts" whereby different types of urban agriculture are recognized under this new code and allowed in several zoning categories. For instance, community gardens are now allowed in residential, mixed-used areas, institutional and entertainment areas as well as stadiums and airports, and market or community-supported farms are also allowed in more residential areas, mixed-used areas, and nearby airports. These interventions have also helped Philadelphia to address its stormwater problems not through grey infrastructure, but rather through a widespread network of green infrastructures, which the city hopes will constitute the largest green stormwater infrastructure in the United States by the mid-2030s. All of these changes to the zoning ordinances, which previously acted as an obstacle to high quality urban environments, now facilitate and even encourage the integration of more green space across the city.



New green space in previously industrial-zoned area

Source: BCNUEJ, 2019

Rezoning of urban land to green space

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Vignette

San Francisco, California

The City of San Francisco has a notable example of re-zoning of urban land to green space, as evidenced through the India Basin Mixed-Use District Project. This project was approved by the San Francisco Board of Supervisors in 2018. The site of the project is the Bayview Hunters Point neighborhood and it is one of few undeveloped waterfront areas in San Francisco Bay. In fact, the Bayview Hunters Point was until now a predominantly industrial and residential area. Historically, San Francisco's heaviest industries had been located there and most of its residents were minority populations with low-income living in public housing. The area was characterized by a low-density structure with many parcels of land remaining vacant and a lack of open green spaces. All of this left many residents without access to a variety of resources, which highlights not only the environment but also the spatial injustice they experienced. This is set to change with the project under development. The multifamily residential developer BUILD, along with the India Basin Neighborhood Association (IBNA) and the San Francisco Recreation and Parks Department (RPF) is planning to transform a vacant 27-acre waterfront brownfield area into a mixed-use "urban village" with publicly accessible parkland and open spaces (India Basin, 2017; Gehl, 2014). Therefore, the land use designation will change from "Light Industrial" to "Mixed Use" with commercial space, residential units, public open space, parks, etc. Although the site is not being rezoned exclusively to green space, there will be a significant increase in the amount of public green spaces available for public use.





Source: Gehl, 2014

Rezoning of urban land to green space

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Opening of private green space to the public

Definition

In urban centers throughout the world, not all residents are benefiting from urban green spaces (UGS) as a result of densification and privatization, particularly in neighborhoods that are gentrifying (Anguelovski, Connolly, and Brand, 2018). A regulatory measure to ensure that the public benefits from UGS is the opening of private green spaces to the public by encouraging private urban developers to include and maintain publicly accessible green spaces at their own cost. When converting such spaces, it's important to consider that private green spaces are often considered extensions of the home and therefore hold a very different ownership context than a public green space, even if the space in question does not physically change (Coolen and Meesters, 2011; Haaland and van den Bosch, 2015).

Strengths and Limitations

For most urban developers, green is now a planning priority as residents increasingly want to benefit from the positive health effects of having nature back in the city. Furthermore, for residents that are older, less physically capable of maintaining green space, or without interest/time to maintain green space, opening a green space for public use may help to relieve the burden of responsibility onto the greater community. Opening of private green spaces to public spaces can also contribute to strengthening community ties through everyday interaction within the green space as well as provide crucial nature-play for children within the community (Coolen and

Meesters, 2011; Ward Thompson et al., 2016; Pérez del Pulgar, Anguelovski, and Connolly, 2020; Glover, Parry, and Shinew, 2017).

Nonetheless, this policy has some limitations and can thus be met with some resistance. While responsibility may no longer fall onto one person, responsibility for maintenance time and cost for the public space may be ambiguous leaving the space noisier and dirtier than before. Therefore, the opening of private spaces to the public should be done in a regulated way, and by including multiple stakeholders that can guarantee an appropriate and accepted usage of the space.



Poor access to green space in The Liberties, Dublin.

Source: BCNUEJ, 2019

Opening of private green space to the public

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Vignette

Amsterdam, The Netherlands

The Municipality of Amsterdam has developed a spatial plan called the Quality Input Green (KwaliteitsImpuls Groen) to ensure that its growing population enjoys the benefits of nature and to provide a more attractive living environment for its residents (Paulin, Remme, and de Nijs, 2019; Paulin et al., 2020). To do so, it aims to strengthen green and blue infrastructure (vegetation and water) to meet the needs of current and future demographic trends. One of the strategic actions that the Amsterdam Municipality has proposed is to create new parks and expand existing ones. To meet these objectives, one of the key actions proposed was to transform green areas into city parks, for instance, by opening private green areas, namely allotment gardens, into public areas. One possible tactic could be negotiation with garden owners to open the gardens to the public for only pedestrian and physical activity, creating a semi-public green space (Paulin, Remme, and de Nijs, 2019).



Vogelbuurt Gardens - a public green space that was previously a private garden.

Source: BCNUEJ, 2019



Social housing in The Liberties lacking green space. Source: BCNUEJ, 2019

Vignette

Dublin, Ireland

The Liberties Greening Strategy aims to create a network of new urban parks, making green spaces accessible to all and refurbishing existing green spaces. The strategy seeks, among other things, to provide allotments, community gardens, and pocket parks within The Liberties neighborhood of central Dublin (Dublin City Council, 2015). As a member of Dublin's City Council explained, allotments and community gardens were introduced or at least popularized with the Greening Strategy, as the tradition did not exist prior (Interview, 2019). After five years of implementation of the ambitious Liberties Greening Strategy, many local residents feel that the Liberties was not successful in providing ample public space; instead, they notice processes of gentrification and the fabric of their neighborhood changing with the development of artisanal distilleries or promotion of a digital hub economy (Mullally, 2018). Despite intentions to improve public, open, green space, the Liberties Green Strategy may have instead been a policy catalyst for green gentrification.

Opening of private green space to the public

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Definition

An ambitious plan for green space expansion consists of efforts to provide a greater number and area of green spaces through a city, with a particular focus on those neighborhoods that were previously underserved or underinvested. However, access to green space is not always equally distributed within the cities (Cole et al., 2017). In fact, it is often highly stratified based on income, ethno-racial characteristics, age, gender, ability, and other axes of difference (Byrne et al., 2009). The distribution of such space many times disproportionately benefits white and richer communities and is increasingly recognized as an environmental justice issue. In the United States, people of color and low-income residents typically occupy zones where green space is either scarce or poorly maintained, while wealthier inhabitants often enjoy abundant and well-maintained green space in the suburban periphery (Wolch et al., 2014). Many US cities have implemented strategies that aim at increasing the supply of urban green space, particularly in parkpoor neighborhoods. These include greening of remnant urban land and reuse of obsolete or underutilized transport or utility corridors, and remediated brownfields (Ibid).



Parc Central in Valencia, part of a greater city-wide greening plan.

Source: BCNUEJ, 2019

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Strengths and Limitations

Urban green space, such as parks and gardens, urban forests, greenways, and community gardens, promote physical activity, psychological well-being, and general improved health for urban residents. Moreover, living close to green space has been significantly associated with increases in physical activity, hence reducing cardiovascular disease risks and prevalence. Green spaces also offer socialization and social contact benefits, which is particularly important for elderly residents and children. From an environmental standpoint, green spaces filter air particles, remove pollution, attenuate noise, cool temperatures, and provide food. Last, urban greening has been shown to increase an area's attractiveness and investment potential (Rigolon, 2019; Wolch et al., 2014). Another strength of green space development is the possibility of involving the urban community in the process of planning and design, for example through charettes/participation groups, online questionnaires, or virtual or face to face platforms where people can express their expectations or vision in relation to the green space and influence decision-making over a location, space composition, or design. A park like Superkilen in Copenhagen has been directly co-designed with members of the local multi-cultural community. In Lyon, as the city Director of Urban Ecology put it when describing citizen input over green space, "[residents] do not have full powers, but people are given back their place in the project and they are also allowed to pass on their expectations, needs, and others. And that's a health element. This is just giving people the opportunity to interact with projects that affect them". However, public participation can also pose challenges, as meetings can be dominated by certain voices, as

this interviewee puts it "there are opinionated leaders who immediately take power in the conduct of the meeting" (Interview, 2019).

On the other hand, the creation of green space can sometimes lead to an urban green space paradox (Wolch et al., 2014). By improving the attractiveness and public health, the creation of new green space makes a neighborhood more desirable, resulting in the rise of housing costs and property values. The housing cost escalation can lead to gentrification, displacement, and exclusion of those very residents that the green space strategies were meant to benefit, what is now commonly known as green gentrification (Gould and Lewis, 2016). Eventually, working-class, minority or immigrant residents often end up not being able to harness the values of new green space, even in greening projects that were meant to address the historic lack of green in their neighborhood.

In addition, the development of green space can be a complex process due to the incidence of longterm natural processes that are involved in the growth and maturation of the living elements. Furthermore, they represent public values and their public acceptance and appreciation depend on the characteristics they possess. Green spaces can also be costly to maintain and can be victims of privatization or budget cuts, as in many cities in the UK such as Bristol. Moreover, many European cities have demonstrated an increasing degradation in the general quality of existing urban green spaces have been observed (GreenKeys, 2008).

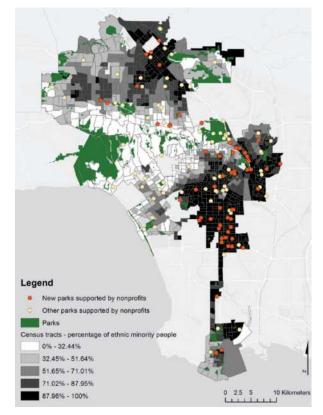
Vignette

Los Angeles, California

Los Angeles was conceived as a city of low-density, single-family homes, each with its own private garden. While large districts of medium-density multifamily housing were being built into the city's central neighborhoods, real estate developers did not dedicate enough land for public open space, setting aside extraordinarily modest amounts of land for park and recreational purposes. Nowadays, the challenge of equity in access to parks and open space is severe in the city, especially when it comes to communities of color. Those communities are often characterized by multifamily housing that typically lacks private yards for leisure, and their residents can rarely afford to access private recreational venues. Therefore, the unequal distribution of parks is particularly acute in the city's low-income and racial/ethnic minority communities. Neighborhoods dominated by Latinxs, African Americans, and Asian-Pacific Islanders have dramatically lower levels of access to park resources than White-dominated areas of the city as the LA Countywide Comprehensive Parks and Recreation Need Assessment study revealed (Rigolon, 2019).

More recently, nonprofit organizations such as park conservancies, "friends of park" groups, conservation organizations, land trusts, grassroots organizations, and sport-recreation programming groups, have stepped in to invest in new parks and recreation areas throughout the United States. This is due in part to public agencies stepping back from providing environmental amenities as a result of federal budget cuts in the last few decades. Nonprofits have helped public agencies by renovating facilities, advocating for park policies and funding measures, raising funds and capital, improvements, maintaining and operating parks as well as organizing sports and cultural events. The recent study on park equity in Los Angeles has shown that nonprofits help by addressing park disparities in the city by, for example, building coalitions and generating public funds for parks and open space in the area (Rigolon, 2019). In this way, advocacy of the voluntary sector managed to establish and improve many parks in low-income communities of color, as well as pushed the state to address the existing disparities. Although environmental nonprofits might have contributed to increasing inequities and supporting neoliberal urban agenda

in the past, today they are leading a park equity movement in Los Angeles, rebalancing the spatial inequalities in park provision.



Location of parks supported by nonprofits. Source: Rigolon, 2019

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Vignette

Lyon, France

Greening is a key political strategy for changing and rebranding Lyon from its post-industrial image as 39 percent of the municipality is green with only 10 percent of available land, or 8 m² per capita, being publicly accessible (Interview, 2019). As a result, the city has prioritized making green spaces accessible along walkable and bikeable corridors and linking greening with urban transit and mobility. From an initial purpose of beautification, the focus is now on a more functional strategy- from increasing biodiversity and recreational opportunities to reducing carbon emissions and climate change impacts. What is more, residents of the city participate in greening practices with an effort to increase volunteer engagement in greening the city and in parks management (Interview, 2019).

Nonetheless, Lyon is also facing some challenges. Once considered an immigrant-friendly neighborhood, La Guillotière is encountering growing racial and class tensions in its public spaces. In particular, the area of Mazagran has been gentrifying with more educated, whiter, and higher-earning classes moving in. In 2010, Lyon unveiled a plan to revitalize the neighborhood's public spaces which originally were safe gathering spaces and homes to squatters and families of poor immigrants or refugees. These groups were displaced as a result of the demolitions. The opposition to the project gave birth to new activist groups, building alliances across different racial and social groups in La Guillotière. In the neighborhood, the link seems clear between the opening and greening of Place Mazagran and increasing rents and house values, however, there is also the sense that gentrification started way before that, and that greening is just one more factor in this larger puzzle. As the city's director claimed, "gentrification brings out the need for green spaces, shared gardens because it is people who are rediscovering nature, who want their little gardens at the foot of the building" (Interview, 2019).





Place Mazagran, Lyon. Source: BCNUEJ, 2019

A Poster against house evictions in La Guillotière. Source: BCNUEJ, 2019

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Definition

Green spaces are often designed to soften the urban fabric, provide a setting for buildings, create small wildlife habitats, and allow for informal leisure activities in cities. They are public open spaces with the primary goal of improving and enhancing the appearance of the local environment as well as improving the well-being of residents. Green space is part of green infrastructure, which refers to different types of green spaces or any vegetated areas of land or water within or adjoining an urban area, such as formal parks, community gardens, green corridors, waterways, or city farms. Planning the type, design, size, and location of green amenities is particularly important to maximize community benefits.

Increasingly so, green amenities are planned as part of large-scale, adaptive-reuse development projects. At times, development occurs on large pieces of abandoned or underutilized infrastructure which is repurposed in a major urban development initiative as well as on empty land. To some extent, they often involve large-scale clean-up of industrial or military infrastructure and or development of peripheral land. These projects are often led by local governments or their affiliate agencies and usually involve substantial public and/or philanthropic subsidies. Examples can be found in New York's High Line, Washington DC's 11th Navy Yard, or the Atlanta Beltline (Immergluck & Balan, 2018).



Luxury housing and greening part of new urban development in Washington D.C.

Source: BCNUEJ, 2019

Strengths and Limitations

On one hand, green space benefits the local community in many ways, such as improving public health, reducing stress levels, improving child development through creative play, and increasing people's interaction with nature (Anguelovski et al., 2020; East Suffolk Council, 2015). Moreover, the integration of high-quality green infrastructure into the urban environment can provide climate change adaptation/mitigation; health, well-being, and social cohesion; economic growth and investment; wildlife and habitats; and stronger communities (Forest Research, 2020). These benefits are more likely successfully achieved when planning, design, and management take place in order to ensure that green space is provided for historically underserved communities and with the needs, identities, and values of local residents in mind. Of particular importance is the need to ensure that the green spaces built next to or as part of large development projects remain accessible, open, and welcoming to the local community of long-time residents rather than luxury, semi-privatized spaces for wealthier, gentrifying newcomers. In that sense, building a green waterfront or a new park next to a high-end condo development is not enough; those green amenities need to feel like a part of the diverse social fabric of a gentrifying neighborhood.

In the case of large, paradigm-shifting projects, there is a risk of increased real estate speculation, meaning that land and housing prices begin to rise before the project has even started. The result here would be a lack of ability to provide for inclusive development in which affordable housing remains viable in the long run. Therefore, it is fundamental to address affordability and right-tohousing issues well before project groundbreaking (Immergluck and Balan, 2018). Without ample affordability interventions implemented early on, affected areas can quickly become far too expensive for large segments of the population, resulting in a direct displacement of existing residents who are no longer able to afford high rents or increased property taxes. As community organization leader from East Boston, a neighborhood under large redevelopment pressures and also benefiting from greening projects reports, stated "There is an incredible amount of stress because of eviction notices and rent doubling. We have had in the past three years a massive increase in the amount of discussion around suicide here and people feeling suicidal and talking about that and we've had to get training for our staff around that" (Interview, 2019). Sociocultural displacement can also occur when residents perceive that new amenities are not for them to use or be part of, creating the dynamic of 'green exclusion'. In addition, some challenges to both the creation and protection of green space exist during a large-scale urban development. For instance, sites adopted to a green use might suffer from physical or chemical problems such as soil compaction or contamination or air pollution, which can affect overall sustainability goals and undermine the ability of green projects to fulfill their social or health benefits expectations, as in the case of Hunters Bayview in San Francisco. Social factors like public perception, vandalism, or fear of crime might also greatly influence the success of any green space development project (Forest Research, 2020).

Vignette

Boston, Massachusetts

Historically a park-deprived and contaminated neighborhood hosting a majority Latinx and Italian immigrant population, East Boston gained a lot of green spaces in the past 20 years. Initially, those spaces were financed by the airport operator Massport, and more recently by the City of Boston with the help of private developer funding. The investments were focused mostly on the efforts of climate mitigation, giving birth to resilient parks and green resilient infrastructure projects. Furthermore, the East Boston waterfront has also been partially cleaned-up and greened by developers who have operated under Massachusetts General Law Chapter 91 which is the primary tool for the protection and promotion of public use of the tidelands and other waterways in Massachusetts. Chapter 91 regulates activities on coastal and inland waterways, and seeks to preserve and protect the rights of the public, guaranteeing that private uses serve a proper public purpose. As a planner from Boston claimed, "These are the types of measures that will enhance public access, public use, with real thought as to how do we ensure direct connections back into the neighborhoods and these areas so they feel comfortable getting out to these new waterfront resources" (Interview, 2019). Among others, Chapter 91 regulations serve to protect traditional maritime industries, such as fishing and shipping, from displacement by commercial or residential development. Under this law, developers have delivered new open, public space as well as housing in proximity to these new green amenities.

However, areas in proximity to the cleaned-up and green waterfront have been affected by green gentrification in East Boston. There, rapid and broad-scale real estate development projects have been anchored and legitimized by new green spaces, contributing to higher housing prices and extensive gentrification. Today, green gentrification weakens socially vulnerable residents' ability to remain in their neighborhood, both from a physical and socio-cultural standpoint. There is a shared perception among residents and planners of land and construction over-saturation, leaving long-term residents visually and physically overburdened and excluded. In addition, heavy, large-scale housing infrastructure contributes to new environmental risks due to their design and construction characteristics along with unequal environmental protection (Anguelovski et al., 2019). Overall, the lack of comprehensive environmental planning for East Boston is creating greater environmental insecurity especially so for socially vulnerable residents. Despite enhancing the environmental and economic value of East Boston, new green amenities also created sources of housing vulnerability and socio-cultural exclusion of working class and racialized minorities.



Elevated luxury condo development with adjacent green space. Source: BCNUEJ, 2019



Lopresti Park. Source: BCNUEJ, 2019

Vignette

Valencia, Spain

The City of Valencia, located on the Mediterranean coast of Spain, is characterized by large extensions of both blue and green spaces. In addition to the Mediterranean Sea on the east side, parkland and farmland surround the city to the north and northwest, while extensive wetlands lie to the south. Since the 2000s, the city has made increasing the availability of green space in the urban context a priority, with particular resources focused towards the Parque Central, a project involving the conversion of former industrial train infrastructure into greenspace. Planned by the city since 2003 and expected to be finalized by 2025 (Las Provincias, 2020), the park was opened to the public in 2017 after a long process of political and technical struggles around the railway tracks that divide the South-East and the South-West parts of the city and that needed to be moved in order to free a central piece of land where the new park was envisioned to be built. Parque Central is part of the Plan de Actuación Integrada (PAI) approved in 2014 which establishes the construction of over 4,000 housing units in 8 new buildings (Interview, 2019). This market-price housing project enables the financial feasibility of the green space construction as state-sold public land to a real estate developer. The project is a part of the agreement between the Spanish government, the government of Valencia, and the railway public company and upon completion will have fully restructured the railway system of the city and the urban development associated with it. The peculiarity of this green amenity project is tied to being such a big infrastructural project, including not only the green space component but also real estate development and a railway restructuring dimension (Interview, 2019).

The project, and especially the construction of the buildings, prompted several important critiques from civil society groups due to its economic and environmental impacts. In addition, the prospect of the new park has boosted gentrification in the nearby already gentrifying neighborhood of Russafa (Argulles Ramos, 2018).





Parque Central in Valencia. Source: lasprovincias.es

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Conservation areas to preserve green spaces

Definition

In general, green spaces in cities often fight the burden of increased urban intensification and expansion, making space more competitive and land more valuable as a result (Colding, 2020). The designation and regulation of certain (existing) green spaces as conservation areas helps to ensure that urban green spaces are protected and guaranteed, despite significant economic redevelopment pressures. Increasing resources for biodiversity adds to social capital, where reaping the benefits of conserving ecosystems ensures good quality environments for both humans and animals in the urban setting (Naidoo and Rickett, 2006).

Strengths and Limitations

Firstly, by designating certain green spaces as conservation areas, it is possible to guarantee green space and protect it against urban development that intends to eradicate it altogether or interfere with it creating negative impacts. By prioritizing biodiversity in conservation areas, efforts protect "plant, animal, microbial and genetic resources for food production, agriculture, and ecosystem functions such as fertilizing the soil, recycling nutrients, regulating pests and disease, controlling erosion, and pollinating crops and trees" (US Aid, 2010). Moreover, the lens of ecosystem services provides a perspective to understand the cost-benefit analysis of implementation a little deeper and can be used as a framework to understand the intrinsic values of nature (Markandya, 2016). Secondly, there is a vast body of research

establishing the link between high-quality outdoor

environments and both general and mental health (Wolch et al., 2014). In maintaining conservation areas in the city and improving the frequency and accessibility of areas, in turn, it can have a positive impact on health outcomes (European Commission, 2011). This is particularly important in lower-class residential areas, where access to good quality spaces is usually more limited (Maantay, 2017).

A major limitation includes bureaucratic bias towards wealthier areas. An interviewee from the Environmental Commission in Austin explained how despite many city organizations now work towards conservation, the geographic boundaries between them increases competition for funds instead of greater cooperation or a convening organization (Interview, 2019). As such, wealthier areas more often receive the funding over lower class areas, exacerbating existing inequalities. Conservation areas to preserve green spaces

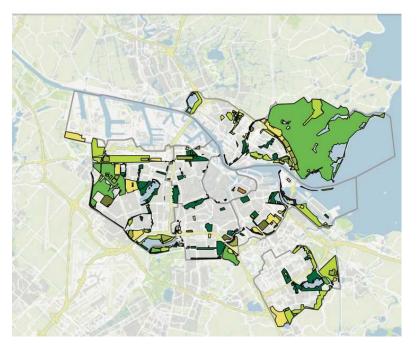
Vignette

Amsterdam, The Netherlands

The City of Amsterdam is one of many fast-growing cities that are looking for ways to increase green spaces in the urban landscape. The Hoofdgroenstructuur (Main Green Structure) is proposed in the Structural Vision Amsterdam 2040, setting the minimum amount of green space that Amsterdam intends to provide, pledging to protect them accordingly so that they can fulfill their functions of promoting green recreation, improving the living environment, and increasing biodiversity (City of Amsterdam, 2020). Thus, this policy simultaneously protects these spaces from housing construction plans, infrastructure building plans, and the like, as these are not in line with the objectives of the structural vision. This policy tool guarantees not only a certain amount of green space in the urban environment but also ensures its protection and therefore its quality.

A political representative from GroenLinks (GreenLeft) mentioned in an interview the extensive work that this party has done in the last 20 years whether as the opposition platform or in the city government to push for greener policies (Interview, 2019). In particular, the interviewee mentions the proposed Main Green Structure. By designating green spaces in the city, whether sports parks, recreational parks, or others, these spaces are protected from developers building within this designated area. Nevertheless, he also points out the criticisms that this policy has also faced from groups such as the Partij voor de Dieren (Party for the Animals), as they claim that all of the green spaces that are not within the Main Green Structure are "up for grabs and nobody is protecting that" (ibid, 2019).

Main Green Structure



Main Green Structure map. Source: City of Amsterdam, 2020 Conservation areas to preserve green spaces

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Definition

A way to stimulate more urban green infrastructure in the city is to create interim green spaces on rundown or vacant lands. This strategy is praised as a cost-effective solution to improve aesthetics and perceptions of land while also combatting green space shrinkage by increasing the amount and diversity of urban green spaces (Rall and Haase, 2010). As cities become denser, there are fewer and fewer opportunities for including nature within the city. As such, opportunity areas ranging from empty building sites to terraces, courtyards, and rooftops, are crucial as they help to expand the surface area of green spaces in built-up neighborhoods across the city. Through expansions of green spaces, more locations for social and physical recreation and creative play are available for a diversity of residents and user profiles.

The implementation of temporary green spaces involves several phases, beginning first with the establishment of minimum conditions and a time frame for the concession. Second, a search for the availability of sites that meet the appropriate conditions must be conducted, followed by a process to design and implement interim green areas according to the availability of the area vegetation that is present. It is generally implemented at a municipal level but can also be initiated by residents themselves or non-profit organizations, among other actors.

Strengths and Limitations

As opportunity areas, unused or vacant urban areas are ideal for the optimization of urban space, as cities are already dense and will continue to densify in the future. In neighborhoods with low or stagnant rates of economic development, interim green spaces can deter vandalism and further deterioration (Rall and Haase, 2010). In general, creating a new image for a vacant or unused space enhances the quality of life for residents and makes the neighborhood more attractive to tenants and/ or investors, encouraging further economic development in the area. Finally, as demonstrated in the creation of green alleys in Montréal, interim green spaces can reduce or even restrict vehicle traffic, which reduces ambient air pollution and environmental noise (WWF, 2020). These manmade re-natured spaces, albeit small, can also contribute to reducing the urban heat-island effect that occurs in dense cities as well as improve rainwater infiltration (Kabisch and Haase, 2012).

Despite positive social, physical, and environmental benefits, there are several consequences when implementing interim green space policy measures that must be considered. First, this strategy often faces a lack of available resources to cover the costs of greening vacant lands and the subsequent maintenance costs of previously vacant land (Next City, 2018). Second, if the site is vacant but severely contaminated it may be too difficult to transform it even for temporary use, or at least controversial given the potential negative health effects. Economic and social conditions must also be considered as some residents may feel that investing too much in open spaces is not worthwhile as they can be easily damaged. Commitment to such a project determines the successful and sustained creation of interim green spaces as concerned citizens and local authorities should be eager to get these projects started and maintained. Such commitment can be affected when the owner decides to use the land for redevelopment, creating tensions between owners and temporary users of the land (Interview, 2019). Finally, as the strategy is temporary, it may perversely contribute to processes of green gentrification — increasing the price of land and housing in the surrounding area, to the detriment of precarious low income and minority renters (Anguelovski et al., 2018).

Interim green spaces on vacant land

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Vignette

Glasgow, Scotland

As a response to the long-term issues of stalled development and abandoned land in Glasgow, Glasgow City Council in partnership with the Glasgow Housing Association introduced the 2016 community-led Stalled Spaces project which promotes the temporary use of vacant land for a range of innovative projects (Glasgow City Council, 2020). This initiative is funded by the City Council and it relies on the participation of community groups by providing short-term lease agreements and professional advice to create pop-up gardens, natural play spaces, wildlife areas, urban growing spaces, and art sculpture parks. From 2011 until 2017, the project received £50,000 each year from the City Council and the Housing Association to permit local groups or organizations to apply for grants between £1000-2500 to be used in vacant areas that have been set aside for development (Yates, 2015). In just the first five years, Stalled Spaces delivered more than 100 projects that transformed 25 hectares of vacant or underutilized open sites into land for temporary community uses (Glasgow Evening Times, 2020). The program has been successful in providing environmental benefits and services to underserved communities as well as enabling community empowerment, social inclusion, and connection to local environments. Yet, Stalled Spaces has also met criticism, namely because of the temporary nature of projects. Communities would like to see the investment going into permanent projects as opposed to short-lived ones. Additionally, as explained by a member of a Stalled Spaces project, these projects need to have a committee to be properly organized and to ensure accountability, but many communities lack experience, skills, or time to form such groups (Interview, 2019). Thus these projects have been increasingly leaned towards artbased interventions, which do not necessarily benefit with nor engage local socially vulnerable residents (Interview, 2019).



Calton Garden in Glasgow, an interim green space created through the Stalled Spaces Project.

Source: BCNUEJ, 2019

Vignette

Montréal, Canada

Many urban boroughs in Montréal have supported the transformation of back alleys into citizen-led, collectively-managed green spaces. These green alleys ("Ruelles vertes" in French) are created by removing pavement and planting bushes, flower beds, etc. in areas that are often used as car parks and otherwise remaining seldom-used spaces. The greening is carried out by alleyway residents who create a committee and apply for financial and procedural support through their borough level Éco-quartier. The Éco-quartier Green Alley program was introduced by the City of Montréal back in 1995, asking local non-profit community organizations to create an environmental action plan that would improve the living environment of its residents and encourage more civic engagement. Montréal now has 18 Éco-quartiers in 15 different boroughs, overseeing activities such as the development of green alleys and other greening projects or clean-ups (see below the green alley in the St-Henri neighborhood). By 2018, there were already 346 green alley projects in Montréal driven by engaged residents and supported by local Éco-quartiers (WWF, 2020). In addition to its environmental benefits, the creation of these green alleys beautifies the surroundings in a particular neighborhood; provides a safer space for kids to play; and, importantly, provides an opportunity for neighbors to work together and manage a local project in a bottom-up way. There are, however, concerns in some neighborhoods about green alleys contributing to processes of green gentrification by raising the prices of surrounding rental properties (The Globe and Mail, 2018). Real estate agents use the presence of green alleys to market housing and to potentially increase the listed purchase or rental price of properties.



Green alley in St-Henri, Montréal. Source: BCNUEJ, 2019

Interim green spaces on vacant land

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Definition

Overcrowding with private vehicles is a major challenge for many cities, leaving little physical space for implementing green infrastructure. A tool to counter this and significantly increase the amount of urban green spaces involves repurposing streets for green transit areas. This measure would not only disincentivize the use of private vehicles — reducing ambient air pollution and environmental noise — but also free urban areas from fast-moving transit in order to revitalize public spaces and allow residents to enjoy the abundant benefits of green spaces. This policy tool is generally implemented at the municipal level and can be accomplished through a partnership with private developers and contractors. The COVID-19 pandemic is placing further emphasis on how the design, use, behavior, and perceptions of public space may change in the post-COVID-19 world (Honey-Roses et al., 2020). Some scholars see the crisis as a potential opportunity for city planners to repurpose streets to suit pedestrians and cyclists while making them greener and more livable.

Strengths and Limitations

Implementation of this tool is a critical method to reclaim the streets from cars, which have long dominated cities and caused congestion, noise, and air pollution. Fewer cars also decrease accident rates in the area and thereby helps increase safety for its residents and visitors. This policy increases the amount of available public space for greening, which provides both environmental and socioeconomic benefits, such as increased social cohesion, improved health and well-being, and stimulation of green jobs.

However, a potential constraint to implementing this policy tool may result from the existing infrastructure of many cities, especially European ones, where compact streets may result in congestion issues and complaints over lack of road space. Additionally, this measure can result in resistance from the political and social sphere as it can be seen as part of a progressive agenda that some political groups do not identify with, and it can also meet resistance if it is implemented without the inclusive participation of the public. Finally, this policy tool has the risk of leading to green gentrification in surrounding neighborhoods resulting from increased housing insecurity (Oscilowicz et al., 2020). Considering this risk, tool implementers should try to minimize the likelihood of negative outcomes by protecting residents from rent increases resulting from the project.

Vignette

Barcelona, Spain

The City of Barcelona has one of the highest population densities in Europe as well as the sixthlargest city in terms of population in the European Union. The city's air pollution largely exceeds the recommendations by the World Health Organization (WHO) due to automobile traffic which contributes to intense accumulation of greenhouse gas emissions. As a result of these compiling characteristics, there is a need for a new mobility model that adapts to and mitigates climate change effects while also meeting the needs of present and future urban residents.

The Municipality of Barcelona, in collaboration with the Urban Ecology Agency, established the Urban Mobility Plan of Barcelona 2013-2018, which proposed a series of guidelines to tackle urban challenges such as mobility, public space, social cohesion, and biodiversity, all with a clear focus on sustainability (BCNecologia, 2012). Barcelona has thus far implemented six Superblocks in different districts across the city and plans to construct up to 503 of them (Urban Mobility Plan of Barcelona 2019-2024). The interior of these blocks gives preference to pedestrians, by establishing a 10 km/h speed limit for resident vehicles and services and emergency vehicles, as well as by removing above-ground parking. The interior is also meant to include parks, playgrounds, or other green spaces. Areas on the outside of the Superblocks make up the basic road network and host motorized traffic. Alternative modes of transportation are also implemented such as new orthogonal busses, bicycle lanes, carpool, and pedestrian lanes. Last, the green spaces part of the Superblocks have offered new nature access to residents and been found to improve community relations and a sense of belonging (Oscilowicz et al., 2020).

In summary, Superblocks do not require intensive urban restructuring, which makes this model appealing as "an innovative urban and transport planning strategy that aims to reclaim public space for people, reduce motorized transport, promote sustainable mobility and active lifestyles, provide urban greening and mitigate effects of climate change", according to one policy-maker in the municipality (Interview, 2019). Despite those benefits, some residents have expressed concerns about the reduced access to private businesses and the location of some public transit stops, which older residents originally saw as far away from their homes (Zografos et al 2020). Finally, Superblocks have been found to be catalysts to green gentrification causing housing displacement and financial stresses on families (Oscilowicz, et al., 2020).



Marked entrance into the superblock in Poblenou. Source: Muñoz, 2016

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Vignette

Amsterdam, The Netherlands

The City of Amsterdam is looking for ways in which to make its neighborhoods lively and greener through the Quality Input Green (KwaliteitsImpuls Groen) spatial plan. The Hondsrugweg in Amstel, initiated in 2018, is a promising project which intends to upgrade a mono-functional office area into a mixed-use building consisting of offices, residential and student housing area, and green infrastructure in place of the existing roadway. The Municipality of Amsterdam and Wonam, a housing construction organization that aims to respond to the large demand by the youth for affordable rental housing, has implemented the plan by beginning with an initial facilitation activity to help the local community share their voice regarding the plan and potential changes to the urban fabric, so as to include multiple perspectives and incorporate developers, local residents, public officials, and entrepreneurs. While this project is still in the planning phase, the transformation of the area around Hondsrugweg will focus on buildings that are either vacant or temporarily inhabited as well as a major roadway that leads into the Hondsrugpark (Placemaking Plus, 2018).



Future Hondsrugweg, including the green transit areas intended for development. Source: Hondsrugpark website

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Measuring/mapping access to green space

Definition

Green spaces have long been undervalued especially in compact cities, however more recent attention has been placed on the economic, health, quality of life, and ecological benefits of introducing more green spaces into cities (Jansson, 2014). This shift has prompted governments to look into the strategic planning, design, and management of urban green spaces so that the functions, services, and benefits of these can be optimized. The planning is indeed crucial as the proximity of green spaces to where people live, work and spend time is a major determinant of people's use of green space (ibid, 2014). As green spaces in cities have not historically been equitably distributed, some residents have had more access than others as a result of particular planning decisions that may have been different with additional data or visualizations.

A planning tool that can be used to ensure widespread (equal) access to green spaces is to set a benchmark for the amount of green space, for instance, a specific requirement of square meters per capita or minimum proximity to green spaces (Teimouri & Yigitcanlar, 2018). It is the local authority that can set these planning policies through local green strategies or plans. Many of these local authorities base their benchmarking on recommendations from other organizations. Some of these recommendations contain equity considerations through examination of the percentage of residents of the city with access, such as the Trust for Public Land (2018) in the United States which recommends that every resident lives within a 10-minute walking distance from a park, or the World Health Organization that assumes a minimum of 9 m² per capita and claims that the ideal minimum green space per capita should be 50 m². Other recommendations are not as precise regarding the difference in access and instead include city-wide averages. This tool places cities in direct competition with each other in a measurable way, and programs such as the European Green Capital further encourage cities to set standards and meet them (European Commission, 2013). They encourage ambitious goals to boost sustainable development and provide role models to inspire other cities.

Strengths and Limitations

A strength of this planning tool is that it reveals a commitment by the municipality to achieve high environmental standards and to ensure a minimum amount of green space per capita or minimum proximity to green space for all residents. In addition, it can help cities to reverse existing inequities by identifying areas for targeted greening (Panagopoulos, 2019).

However, this policy tool also has some limitations. First, to set a minimum number of square meters of green space per capita may not be an accurate indicator of the actual equal access to green spaces. As an interviewee from the Department of Greenspaces and the Environment ("Services des Espaces verts et de l'Environnement"- SEVE) in Nantes said, the average square meters per capita of the city, which is 57 m², does not represent what it is in reality for residents in specific neighborhoods; in the city center, it is 37 m² while in northern neighborhoods it can be even more than 110 m² (Interview, 2019). In addition, these measures may not account for the quality of the green space. For example, especially in the peripheral areas in Nantes, residents have many more meters per capita of green space, but the quality of these spaces is much lower and needs improvement (European Commission, 2011). This makes the average square meters per capita of green spaces a misleading value as this indicator does not represent well the equality of access, does not say reflect on the quality of the green spaces, nor the inclusiveness of a green space.

Measuring/mapping access to green space

Vignette

Nantes, France

The City of Nantes, which won the European Green Capital Award in 2013, has been following a greening strategy that has led to attractive and highquality green landscapes across the city (European Commission, 2013). Since laying out the initial greening goals in the late 1980s, the quantity of green spaces has doubled, and the city currently hosts a total of 100 municipal parks. By 1999, the percentage of residents living within 300 meters of green space had already reached 100 percent, and it has not decreased since then (European Commission, 2011). These efforts mean that Nantes's residents enjoy 57 m² of green space per capita spread around networks of green and blue stars, as several maps highlight. However, the quality of these green spaces varies per area. For instance, in northern neighborhoods traditionally those inhabited by working-class and immigrant residents more square meters per capita do not translate into high quality green spaces. Nantes's Green Space department is aware of this inequality and has been working on improving maintenance, activities, and overall park quality in more peripheral parks. Overall, the city is conscious of gentrification threats and has placed equity and inclusion at the core of its redevelopment policies (Anguelovski et al., 2019).



Green spaces in Nantes, France. Source: European Commission, 2011

Vignette

Seattle, Washington State

The City of Seattle has set the objective to provide, protect, and enhance its urban forest and green spaces to ensure that all residents of Seattle enjoy the benefits of their natural assets.

One such goal is to increase the proximity to parks, and more precisely, to increase the number of residents living within a 10-minute walk to a park (Fesler, 2016). The Trust for Public Land (2018) — a nonprofit organization that strives to create parks and protect land for people to guarantee healthy, livable communities for future generations — has developed a ranking based on four characteristics of an effective park system: 1) access, 2) investment, 3) acreage and 4) amenities. In terms of access to parks, the Trust for Public Land found that 96 percent of its residents of Seattle live within 10 minutes from a park, in comparison to a national average is 55 percent, and with no discrepancies between income levels.

To achieve that equitable access to parks, Seattle Parks and Recreation (SPR) prioritizes park acquisition in areas with gaps in walkability so as to guarantee an increase in equitable access to parks (Fesler, 2016). SPR created the 2017 Parks Development Plan to determine the type of improvements that were most needed in the next six years. The gap analysis map is divided into several main themes: 1) park space, 2) access, 3) walkability, 4) gaps in walkability opportunity, 5) equity and 6) population density. An interviewee from Outside Citywide (Government of Seattle, 2019) — an interdepartmental initiative that aims to create a more equitable, integrated, and complete public space network for a thriving and green Seattle — said that at this point, equity is largely embedded into everything that the city does, and this interdepartmental initiative is a perfect example of it (Government of Seattle, 2020).



Seattle Park District. Source: City of Seattle, 2020

Measuring/mapping access to green space

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Definition

With the increasing threat of climate change and consequential extreme weather occurrences, waterfront cities and other urban settlements have become one of the most challenging tasks in urban planning. Rising sea levels and more frequent floods force cities to rethink and redesign their shorelines into resilient infrastructures that would offer not only flood protection but also accessible natural space for their citizens. Traditional waterfronts of late modern cities often include massive concrete structures such as trades, piers, industrial centers, and touristic and leisure promenades (Wessells, 2014). Depending on the location and needs of the city, these places can be transformed into accessible blue spaces, resilient parks, living shorelines, natural marshes, and wetlands. Even though they greatly differ in their structure and character, all of the listed redevelopments offer shoreline erosion and flood protection, carbon sequestration, and restorative effects on human health and community cohesion (Haeffner et al, 2017; Kaprielian, 2017; Mitchel and Bilkovic, 2019; NOAA, 2019; Pasanen et al., 2019; Williamson, 2016).

Strengths and Limitations

Firstly, resilient waterfronts play an important part in climate change adaptation strategies of coastal or riverside cities. If properly designed, resilient parks reduce the impacts of flooding by capturing and storing floodwaters with minimal damage to the park infrastructure (Naturally Resilient Communities, n.d.). In combination with proper plant selection, these parks and spaces can restore and sustain important ecological functions of local biodiversity and in turn secure carbon sequestration and oxygen production (Haeffner et al. 2017; Kaprielian, 2017; Mitchel and Bilkovic, 2019; NYC Parks, 2017). As the wildlife that inhabits the waterway and surroundings is unique to only this location in the city, resilient spaces can also become an interesting tool in local environmental education (Williamson, 2016; Mitchel and Bilkovic, 2019). Of further environmental benefit, waterfront green and blue spaces can mitigate temperature in cities, especially during heat-waves events (Williamson, 2016). Considering the direct impact on residents, blue and green spaces have a significant positive effect on physical and mental health as they provide space for relaxation and sport (Haeffner et

al., 2017; Pasanen et al., 2019). Moreover, accessible waterfront parks and shorelines can create opportunities for community engagement and cohesion (Williamson, 2016; Naturally Resilient Communities, n.d.).

Certain issues with blue and green resiliency infrastructure can occur due to inappropriate design and unsuitable location. The most challenging aspect of redeveloping a waterfront site is the need to construct a place that works to counter established patterns of local and regional injustice (Wessells, 2014). As the access to public green space is increasingly recognized as an environmental justice issue, careful consideration of localization and surrounding communities is necessary. This is especially essential when private properties are adjacent to waterways and individuals can access them only by trespassing (Haeffner et al., 2017). Planners should also assess potential social and racial discriminations that can be created by constructing the parks only in rich parts of a city. To avoid this, developers and policymakers should include under-represented populations in project planning and site design (Wessells, 2014).

Vignette

Boston, Massachusetts

In 2016, the City of Boston launched the ongoing Climate Ready Boston strategy plan which presents an assessment of the city's climate vulnerability and readiness as well as summarizes various activities the city undertakes to increase its level of climate change adaptation (Walsh, 2016). In East Boston, the city council, together with local residents, businesses and regional partners assessed the most vulnerable parts and proposed short- and long-term coastal resilience solutions (City of Boston, 2020). The overall strategy design emphasizes accessibility, recreation, connections, views, social spaces, and ecological features. The City is planning to construct elevated waterfront parks, plazas, waterfront pathways, docks, and nature-based features (City of Boston, 2017). Even though the Boston City Council presents social justice as the center of the resilience strategy, the recent construction of luxury housing at the new waterfront has brought up concerns about green gentrification and a widespread affordability crisis. Several housing justice groups are denouncing the lack of permanent affordable housing options in the neighborhood as well as constant threats of eviction faced by residents. As a response, city officials have committed to improving outreach and better involve vulnerable groups in decision-making. (Rios, 2019). Doubts are however present about the ability of the municipality to create and preserve large stocks of affordable and public housing and to prevent further displacement.



East Boston resilience park plan: accessible open green spaces. Source: City of Boston, 2019

Waterfront redevelopment

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Equitable green development

Developer requirements

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Developer requirements

Fee paid by developer directed to green funding

Definition

This policy entails the creation of a fee that developers, interested in (re)developing a piece of urban land, are obliged to pay towards a park fund. By applying this policy, municipalities can increase their budget for green spaces and parks (Bristol City Council, 2012; Grimwood, 2019). The park fund is managed or coordinated either by a parks department or a non-governmental organization. Generally, this policy may be applied by local municipalities or national governments.

Strengths and Limitations

A benefit that comes with this policy tool is a promise that a certain amount of finances will be available to park fundings. Such funding is particularly important in the case of cities where park funding or green space management budgets have been cut, often in the context of austerity policies. On the other hand, it removes public agencies or institutions from traditional responsibilities to directly fund the maintenance or creation of environmental amenities (Bristol City Council, 2012). From an education standpoint, such a tool may raise awareness about the importance of parks in cities, especially so for developers who must pay the fee.

However, the effectiveness of this tool for providing and maintaining parks depends on the percentage of the fee paid by the developer. This amount may not be sufficient to implement and properly maintain a decent number of parks. Some developers also appeal the payment of the fee (Grimwood, 2019) or simply do not contribute to it (London Councils, 2020). In addition, depending on the fee that is required to be paid and the number of new developments planned, the availability of funds for parks can vary annually, making the provision of parks fairly unstable (Bristol City Council, 2020). Moreover, occasionally this policy tool is implemented by local authorities as a recommendation rather than an obligation for developers (London Councils, 2020; Planning Portal, 2020), which again does not guarantee that there will be sufficient funds for parks. From a broader sustainability standpoint, although this fee might, in theory, support the creation of new parks, overall there might be a net loss of open land and space in a city if real estate developments are built on large, previously, untouched portions of land.

Fee paid by developer directed to green funding

Vignette

Bristol, United Kingdom

Bristol has made public a long-term commitment to improving the state of the environment and minimizing its carbon emissions through a series of strategies and plans (European Commission, 2015). One such strategy has been Bristol's use of national policy tools through which developers pay a fee directed to funding parks and open spaces (Bristol City Council, 2012).

Section 106 Agreements are legal agreements to ensure that new development meets certain planning regulations or requirements (Bristol City Council, 2020). These agreements are made between the local planning authorities and the developers, and they concern planning permissions and obligations. The overall aim is to enforce measures for three purposes: first, to prescribe the nature of the development; second, to compensate for losses or damages that the development has caused; and third, to mitigate the development's impact. Section 106 Agreements are specific to the site proposed for development and therefore are meant to compensate the local community for the new development (Bristol City Council, 2012).

The money obtained from these Section 106 Agreements can either be devolved, meaning that it is held by Area Committees which then decide how they want to allocate the money, or non-devolved, meaning that the City Council keeps the money to make improvements across the city (Bristol City Council, 2020). The tool provides a legal framework for reducing the impacts of new development and increasing the funds for public space interventions including green initiatives such as the creation or improvement of parks (Grimwood, 2019). In addition, a similar and related regulatory tool is the Community Infrastructure Levy (CIL), which was introduced in 2008 at the national level and came into force in 2010. CIL is a levy imposed on all development over a certain size used to fund infrastructure, such as green infrastructure, anywhere in the local authority (Planning Portal, 2020). The local authority decides how it wants to invest the money obtained from the fee which comes with both advantages and disadvantages. On the one hand, it may be preferable for the site of the new development to receive the benefits from the investments made from the fees paid, as almost all developments have some impact on the site and on the future need for new infrastructure, services, and amenities; however, since it is mostly affluent neighborhoods that attract new development, CIL ensures that less affluent ones receive investment, too (Bristol City Council, 2012).



Public green park. Source: BCNUEJ, 2019

Fee paid by developer directed to green funding

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Developer requirements

Minimum amount of green space in new development projects

Definition

This policy measure consists of a minimum amount or percentage of green infrastructure in new development projects. It improves access to green spaces while contributing to climate change adaptation (Kruuse, 2011). It can be accomplished through developer-funded initiatives, as potential homeowners demand higher quality green living (European Commission, 2019; The Concrete Jungle, 2019). Alternatively, the measure can also be embedded in legal obligations that developers must meet to receive permits and move ahead with construction projects.

Strengths and Limitations

This policy tool can help to ensure that cities improve access to green spaces, especially so on sites targeted for new real estate development projects. It emerges from the recognition that green spaces provide ample recreational, health, and biodiversity benefits and that vacant or agricultural land is increasingly encroached upon for real estate development. There, the green space to be built or incorporated in new development projects can include playgrounds, sports grounds, parks, gardens, or green resilient infrastructure and fulfill diverse social, ecological, and climate-protective functions (Kruuse, 2011; Randolph, 2004). By targeting developers directly it ensures that developers themselves compensate for limiting the availability of urban open spaces

with their constructions and relieves the cost from the municipality.

However, this tool also has some limitations as in the case of developers constructing higher buildings and including more units as a way to compensate for the cost of creating green spaces which, in turn, increases the density of housing to a point where green space might not be accessible, enjoyable, or welcoming for all residents. In the case that the policy is considered on a voluntary basis, real estate will increase the demand for green spaces in new developments which can intensify social inequalities, support the growth of gentrification and reduce the total affordability of housing (Kats et al., 2013).

Minimum amount of green space in new development projects

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Vignette

Lyon, France

The City of Lyon at the foothills of the Alps is surrounded by nature reserves however, while 39 percent of the city consists of green space, only 10 percent of it is accessible to the public. In order to ensure greater accessibility to urban green spaces, the City has introduced the policy tool of establishing a minimum amount of green spaces in new development projects through the Local Urbanism and Housing Plan (PLU-H; Plan Local d'Urbanisme et de l'Habitat), approved in 2019 (Metropole de Lyon, 2019). The PLU-H seeks to encourage urban renovations, the protection of natural areas, heritage and urban functions, and improve housing affordability along with environmental awareness. PLU-H regulations constrain future constructions by determining the minimum area of open space on each piece of land as well as what type of greening (i.e. tree planting, community garden implementation) must take place (Metropole de Lyon, 2019; Prevost et al., 2012). The tool is a promising top-down strategy that targets the construction sector by setting mandatory requirements of open green space and encouraging the planting and growth of trees to reinforce the presence of nature in the city.



An example of an open green space incorporated in a new construction development.

Source: BCNUEJ, 2019

Minimum amount of green space in new development projects

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Equitable green development

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Equitable green developmen[.]

-inancial schemes

Specific national financial schemes to fund green infrastructure or parks

Definition

Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services in both rural and urban settings (European Commission, 2013a). It increases resilience to environmental challenges such as climate change, which has emerged as a major threat to cities around the world (CDP, 2020). Lack of funding is a significant barrier to the implementation of green infrastructure or parks; however, green infrastructure projects generate many benefits in different socio-economic areas and so must compete for a variety of diverse funding sources from different levels of government (US Environmental Protection Agency, 2020). Different financing approaches can be used to deliver green infrastructure to urban areas, one of them being specific national financial schemes. States can contribute to the funding of nature-based infrastructure in numerous ways, i.e. through innovative use of the public budget, grant funding or donations, debt-based instruments, and instruments generating revenue. Moreover, they can encourage other actors, such as community members or small businesses, to implement nature-based solutions through public-private partnerships, leveraging regulatory obligations, or utilizing revolving funds (EU, 2020). These last ones remain available to fund the operations without any fiscal year limitation, as the organization replenishes the fund by repaying money used from the account.

Nations might work with landowners, partner groups, or public agencies in order to acquire, provide access to, or put into public ownership lands and waterways. Notably, they collaborate with cities, regions, and counties to pass measures and create funding for green infrastructure and parks, with special attention towards socio-economically vulnerable communities. Advocacy is also an important part of the process as work with elected officials, leaders, and communities is fundamental to mobilize necessary support for critical bills and policies in favor of green amenities. Finally, park creation and green infrastructure should be addressed in close collaboration with equitable development entities, schools, designers, and builders, in order to create green spaces that reflect local needs. Smart planning, partnerships, and science-based solutions are necessary to make cities resilient, healthy, and equitable.

Strengths and Limitations

Collaborating with third-party investors like banks or insurance companies, nations can help to recreate a financial system that values nature's benefits in the global economy and leads to sustainable outcomes. Furthermore, establishing partnerships amongst a variety of funding actors can often be difficult as differences in decisionmaking, methodologies, values, and organization can be barriers to a fruitful collaboration. This can

be further exacerbated as local governments may not be able to find sufficient financing for small scale projects, as investors are generally interested in larger development projects. Additionally, financing may only be available for capital projects and not for operations and maintenance which are essential to successful green infrastructure projects (Georgetown Climate Center, 2020).

Specific national financial schemes to fund green infrastructure or parks

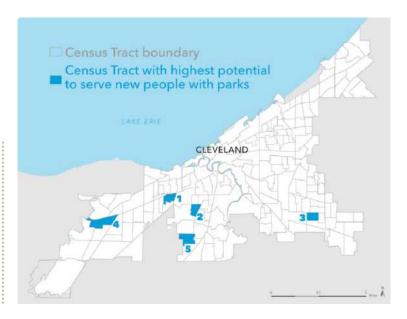
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Vignette

Cleveland, Ohio

The Trust for Public Land (TPL) is an American non-profit organization based out of San Francisco, California, that creates parks and protects land in order to bring nature to communities nationwide. The organization helps communities raise funds, conduct research, and assists in the acquisition of green land spaces (The Trust for Public Land, 2020). It has also provided assistance to communities in the participatory design and renovation of existing green spaces. The organization draws its funding from a variety of sources, with major funding provided by individuals (landowners), foundation grants, and businesses or corporations. TPL functions as a vehicle to provide the community-based green infrastructure that is funded through a larger federal, non-profit, and private-partnership financial scheme (2020).

TPL is currently assisting the City of Cleveland in prioritizing building and improving parks in neighborhoods that have been historically denied access to green space. Through an extensive research project, TPL identified communities in Cleveland with the most pressing need for park access by illustrating the highest priorities for park creation from an equity standpoint. The research used the characteristics of existing parks in the city to estimate the expected benefits of park investment. While designing these parks, TPL advocates for a community-led process, identifying the characteristics that will engage residents. The study illustrates the benefits of investing in new parks, such as providing recreational opportunities, improving public health, storm-water management, enhancing property value, reducing air pollution, boosting tourism, and economic development. In addition, the study highlights the economic benefits that are expected to result from the investments directed towards the creation of such green spaces responsive to environmental justice (2020).



A map designating where parks can have the biggest impact on equity.

Source: The Trust for Public Land, 2020

Specific national financial schemes to fund green infrastructure or parks

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Green bonds

Definition

Government policies can play a key role in influencing how private capital is mobilized to encourage and facilitate a transition towards a more sustainable future, without losing sight of questions of equity and justice. Green bonds are used to fund sustainability, climate-sensitive, renewable energy, energy efficiency, clean transportation, agriculture, and water programs, function identically in structure, risk and return to conventional bonds. Issuing bodies are municipalities, corporations, government agencies, and supranational bodies. In 2007, the first green bond was launched, backed by the World Bank and the European Investment Bank (EIB) (ECLAC, 2017), with Gothenburg, Sweden as the first municipality to issue green bonds in 2013 (City of Gothenburg, 2018). The green bond market has grown rapidly ever since.

Strengths and Limitations

Governments, corporations, and supranational bodies are able to acquire financing at a variety of term-lengths otherwise often limited to sustainability-related projects or initiatives through green bonds. For many investors, green bonds provide the opportunity to generate profit whilst simultaneously contributing to environmental improvements, thereby increasing impact-based investment. Overall, the tool creates a culture of awareness and encourages ideas of sustainability among investors and the financial community (García-Lamarca and Ullström, 2020).

Standardization of green bonds presents a challenge for issuers as they attempt to present their environmental contributions in an unsystematic manner. As a response to this limitation, the European Union has already drafted a model of the EU Green Bond Standard that is intended to be globally relevant (Rajwanshi, 2019). The formalization of the process of the green bond poses challenges in determining the impact of sustainability programs financed by green bonds. Without a clear objective and comprehensive reporting of completed objectives, it is difficult for investors and the public to measure the success of impact, particularly on social equity, inclusion, and justice. This may raise concerns of greenwashing, particularly when an entity that issues green bonds portrays itself as being environmentally friendly, yet not sufficiently integrating socially and environmentally just climate-sensitive measures. Finally, it can be questioned as to what extent green bonds have positive additional climate impacts. For instance, as an Environmental Analyst from Gothenburg points out, green bonds are financing or refinancing projects that would have most likely been financed anyway and therefore may be serving as a branding instrument (Interview, 2019). Moreover, the linking of bond proceeds to specific expenditures can make funding more expensive or lead to underfunding (Giugale, 2018).

Vignette

Gothenburg, Sweden

Gothenburg, the second-largest city in Sweden, is a frontrunner in green bond financing. In 2013, the municipality became the first city in the world to issue a green bond in an attempt to attract investments aimed to reduce the effects of climate change (Ullström, 2019). The Gothenburg City Council (2018) cites green bonds as "a vital tool to reach the city's environmental and climate goals". Green bonds projects can support eight main project categories: 1) renewable energy, 2) green buildings, 3) energy efficiency, 4) clean transportation, 5) waste management, 6) water & wastewater management, 7) sustainable land use & environmental management and 8) climate change adaptation (ECLAC, 2017). While green bonds have been used to fund a large solar park, a sewage pump station, a city-wide electric car-sharing system and tree planting, by the end of 2018, over two thirds (71 percent) of total green bond funds had been invested in the green building category, largely for green social housing (ibid., 2018). Researchers have found that rents are higher in these buildings, making them unaffordable for single-parent and/or low income households and further highlighting the critical importance of considering the social dimensions of municipal green bond spending (García-Lamarca & Ullström, 2020). This is particularly important considering both the growing use of and investor appetite for such bonds as issuance has climbed from less than 11 billion USD in 2013 to 257 billion USD in 2019 (Climate Bonds Initiative, 2020; Kidney, 2014). While Gothenburg is an example of a very strong and sustained municipal push towards the issuance of municipal green bonds to finance climate-sensitive projects that usually lack upfront capital, social dimensions



require consideration.

Tree planting. Source: Ullström, 2019

Green bonds

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inancial schemes

Regulations to support the development of urban agriculture

Definition

Urban agriculture includes farming projects on private or public land, such as backyard gardens, community gardens, allotment gardens, and urban farms. These activities can be of different productive intensity, ranging from gardens that grow food for personal consumption (or donation) and market gardens or urban farms that grow food for sale. Urban agriculture is typically viewed as a strategy to achieve larger environmental and socio-economic goals, such as land regeneration, food security and sovereignty, improved health, economic development, and community engagement. Some of the functions of urban agriculture include vacant land remediation, development of business models and social entrepreneurship, community service and volunteer activity, preservation of cultural and ethnic identity, promotion of physical activity for children and adults, provision of environmental education tools, leadership opportunity for community members, and an answer to food insecurity and urban food deserts, among others (Meenar et al., 2012).

Local and regional governments play important roles in legitimizing urban agriculture as recognized land use or community development strategy and they can effectively integrate it into decision-making processes. For example, open-space policies can favor the conversion of vacant or abandoned land to urban agriculture; economic development policies can create new financing tools for its development; tax incentives may encourage its location in under-represented neighborhoods; housing goals can promote urban agriculture near affordable housing; public health policies can support access to fresh fruits and vegetables. In addition, zoning standards can be revised to formally acknowledge community gardens and urban agriculture uses, or specific areas can be created by creating new zoning codes (American Planning Association, 2020).



Community, urban agriculture and gardening in Nantes, Frances Source: BCNUEJ, 2019

Regulations to support the development of urban agriculture

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Strengths and Limitations

From an environmental standpoint, urban agriculture helps to transform previously contaminated or vacant land into more productive spaces, which can serve both for climate adaptation (i.e., fighting against heat islands) and mitigation purposes (i.e., reduced greenhouse gas emissions; carbon sequestration from trees). From the point of view of farmers, urban agriculture has been shown to improve physical and mental health by offering participants new access to green space and both recreational and physical activities. It can also enhance valuable relationships between the gardeners and their ecosystems, promoting a meaningful connection to nature. Through certain activities and social missions, it can offer job skills and workforce training, triggering a sense of pride and accomplishment among users. Moreover, urban agriculture improves access to fresh food, provides healthy food choices, strengthens the resilience of local food systems, and supports community empowerment as well as cultural ties.

Some of the growing challenges faced by urban agriculture practices involve dynamics of exclusion, discrimination, and gentrification affecting mostly socially vulnerable residents (John Hopkins Center for a Livable Future, 2016). Notably, when such initiatives are led by young, white non-residents in predominantly minority neighborhoods, they can unintentionally exclude historical residents and people of color from benefiting from or engaging in the garden or farm (Anguelovski, 2015). In contrast, when the activities are led by low-income residents and people of color, they often experience discrimination in access to land or government funding, and the political support given to them can often be weaker compared to white and middleclass groups. Furthermore, urban gardens and farms can make neighborhoods more attractive to developers, causing an increase in property values and resulting in the displacement of lower-income residents who can no longer afford to live there. In some North American cities, gardens have indeed been associated with green gentrification patterns (Braswell & Harris, 2018), especially those that are not driven by food justice goals (Aptekar & Myers, 2020), while in Europe, gardens might be spaces to fight against gentrification (Merino Mayayo, 2019). Another limit relates to the legal barriers faced by gardeners and farmers, and specifically to securing the right to farm through land tenure and land use control. Usually, gardeners and farmers grow food on land that they do not own and often they lack the right to stay long-term or permanently. Without land tenure or land use protections, many gardens and farms are lost, as their success and their ability to care for members and retain them depend strongly on their permanence, stability, and longevity (Kotsila et al., 2020).

Vignette

Seattle, Washington

P-Patch is the name given to the City of Seattle's community gardens. The gardening program was developed in the 1970s, and is one of the first and largest in the country. As of 2020, the Seattle Department of Neighborhoods' P-Patch Program oversees 89 P-Patches located throughout the city. Community gardens come in many different shapes, sizes, and ownerships. They are open to the public and represent restorative and gathering spaces, as well as learning and idea incubators. Community members engage with the gardens through volunteer hours and by supplying fresh, organic products to Seattle food banks and feeding programs. The P-Patch Program actively partners with other organizations to support youth gardening and community food security programs, with a special emphasis on Seattle's immigrant and lower-income residents.

South Park, located on the banks of the Duwamish River, has historically suffered from environmental injustices. It is also one of the few neighborhoods in Seattle with a strong presence of people of color, primarily Latinx, along with smaller Vietnamese and East African communities. Here, the P-Patch in Marra Desimone Park is in the process of transitioning to the Marra Farm, Seattle's largest site for urban gardening. The planning for the project involved meetings with the Latinx and Vietnamese communities, along with other diverse groups of the South Park area. "They do all sorts of work. There's a group of neighbors that take care of the chickens, there's a children's garden over on this side. So it's used by different groups", an activist from South Park explained (Interview, 2019). Interestingly, the city's involvement with the project presents both advantages and challenges for the community members. On one hand the gardens have more resources, the bureaucracy of the city makes the gardens less flexible in how they are managed. In fact, the farm has been missing a community board of leadership for the last four years, because "there are so many barriers to being part of it. Just to get into the board, it's like a job application process", an activist reported (Interview, 2019).



Marra Desimone Park in South Park neighborhood.

Source: BCNUEJ, 2019

Regulations to support the development of urban agriculture

Vignette

Boston, Massachusetts

Historically park-deprived and heavily contaminated, East Boston gained a series of new large and small green spaces in the last 20 years including Eastie Farm. The farm was born in 2015 as an initiative of residents "dedicated to improving food access and community resilience through the development of interactive urban agricultural spaces, where residents of all ages and backgrounds are encouraged to learn and take part in the production of healthy, locally-grown, and culturally relevant foods" (Eastie Farm Website, 2020). Through the years, the farm has been a highly popular spot for Latinx families and others to grow fresh food and access a peaceful, green space in a dense and heavily trafficked neighborhood (Interview, 2019). The farm represents a particularly valuable resource for community cohesion. "People, in general, these days are more disconnected from each other and feel like they have to solve their own problems. Something that Eastie Farm has been able to really contribute to is a sense of community", a development officer from East Boston reported (Interview, 2019).

Eastie Farm, as well as the many other urban farming projects in Boston, are supported by Article 89 of the Boston Zoning Code which addresses a wide range of urban agriculture activities throughout Boston, most notably farming. Article 89 allows farming in different parts of the city, given several determining factors: the zone in which the property is located, the size of the proposed farm, and the nature of agricultural operations.



Eastie Farm in Boston. Source: Eastie Farm Website, 2020

Regulations to support the development of urban agriculture

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New/improved urban green amenities

Definition

Tight local budgets — for urban services and specifically for urban green spaces — are often the most significant economic challenges in the governance of urban green spaces as they face pressures from increasing urbanization, economic downturns, and municipal budget cuts (Hickman, 2019; Schicklinski, 2017). Under budget constraints, local governments are mostly guided by relieving short-term pressures from "essential" city sectors, such as the maintenance of key infrastructure and services, which can undermine green space funding, management, and maintenance (Colding, Gren, and Barthel, 2020). Additionally, the gradual shift towards the privatization of public land and resources (or at least the increasing dependence on external funds) is also resulting in a major loss of green space, thereby decreasing the chances for people to enjoy the benefits of nature (Rigolon, Browning, and Jennings, 2018). A financial policy tool to ensure that urban green spaces do not become further jeopardized is increasing the municipal budget dedicated to new and/or improved urban green amenities.

Strengths and Limitations

Increasing the municipal budget for urban green amenities would provide cities with the flexibility and capital to provide high-quality green spaces in an equitable and just manner. By providing municipalities with more funding capacity, financial pressures on local and national nonprofits, such as the Trust for Public Land in the US, as well as private developers or companies that have provided additional funding in lieu of municipalities (Rigolon, Browning, and Jennings, 2018). Increasing budgets in theory can also remediate poor green space access, such as the Liberties in Dublin, an area historically deprived of green space. This financial tool has the potential to increase the quantity, quality, and access to green spaces in cities.

On the other hand, increasing the budget ringfenced for green spaces might result in a loss of budget to support other areas such as education or health in the absence of increased revenue. Increased green space budgets also do not signify that new or improved green spaces will go to the lower-income underserved neighborhoods where green spaces are either less available, of lesser quality, or under-maintained (Garcia-Lamarca et al., 2019; Nesbitt et al., 2019). Some cities such as Los Angeles are indeed struggling to provide greater or better green spaces to working-class communities (Humphrey, 2019). New or renovated green spaces might also contribute to green gentrification and to the further displacement of low-income residents and minorities (Anguelovski et al., 2019; Kenneth, Alan, Gould, and Lewis, 2017). Furthermore, providing more funding to the city might reduce pressures on private developers to contribute to the development and maintenance of urban green spaces.

New/improved urban green amenities

Vignette

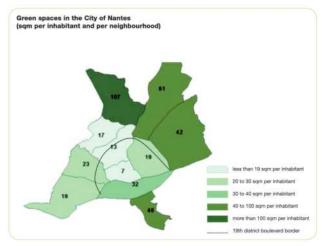
Barcelona, Spain

The City of Barcelona, being the second-largest city in Spain and one of the most densely populated cities in Europe, is challenged in finding available land for building new green infrastructure. According to a report of the Barcelona Green Infrastructure and Biodiversity Plan 2020, each resident benefits from 17,71 m² of green space per capita, one of the lowest rates in Europe. To build additional green infrastructure, Barcelona has been increasingly devoting larger amounts of money to building and maintaining small patches of connected green spaces through the city (Ajuntament de Barcelona, 2020a). Data from 2013 until 2020 shows that an average of 57 million Euros per year has been allocated to green spaces. Reviewing yearly budgetary increases, in 2013 the budget allocated was 53.2 million Euros while in 2020, the budgeted amount grew to 67.1 million Euros. This results in a 26 percent growth in the budget allocated to the building and maintenance of green spaces. This increase in budget will help to achieve greening that is more inclusive and equitable (Ajuntament de Barcelona, 2020c).



Public life made possible by the pedestrianization and greening of streets in the Superilla of Sant Antoni neighborhood in Barcelona.

Source: Ajuntament de Barcelona, 2020



Geographical distribution of square meters of green spaces per inhabitant per neighborhood.

Source: European Commission, 2013

Vignette

Nantes, France

The City of Nantes, located in Western France, has developed an ambitious green agenda since the late 1980s and 1990s and was awarded the European Green Capital Award in 2013. One main focus of the greening strategy has been the implementation of urban re-naturing policies, or "Nature en Ville" (European Commission, 2013). The city's greening strategy also favors an equality-driven approach that seeks to guarantee access to green space throughout the entire municipality as opposed to investing in concrete flagship projects. The positive effects of these policies are illustrated by the doubling of green spaces in the last 20 years. Nantes currently has 100 municipal parks and calls itself "The City in a Garden". This increased amount of green space translates into 57 m² of green space per capita and makes it possible that 100 percent of Nantes's residents live within 300 meters of a green space. All of Nantes's green success has been made possible thanks to 6 percent of the city's total budget dedicated to green space, which is twice the budget of the security department.

New/improved urban green amenities

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-inancial schemes

Green resilient infrastructure funding in socially and environmentally vulnerable neighborhoods

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Definition

As a result of unevenly distributed high-quality green spaces in cities, vulnerable groups are more likely to experience social and residential displacement as a result of the provision of green infrastructure and its related gentrification risks (Anguelovski et al., 2019). To address these issues of green inequality and gentrification through fiscal policy, green resilient infrastructure funding from municipalities or private groups can be directed towards socially and environmentally vulnerable neighborhoods.

Strengths and Limitations

This policy tool is crucial to bridge the gap in green infrastructure between affluent and impoverished or vulnerable neighborhoods and help to contribute in accessing the wide-ranging physical and mental health benefits that come with experiencing nature (Cole et al., 2017). In addition, these investments often respond to the needs and demands of residents, despite often being seen as "too late" by residents who have been asking for changes and investments for several decades (Interview, 2019).

At the same time, there are many risks to account for when trying to implement this policy tool. While the policy's intent is to provide more funding for green spaces to address the above-mentioned inequalities in particularly vulnerable neighborhoods, this policy could conversely be a driver of green and climate gentrification in these same areas (BCNUEJ, 2018). This happens because the new investment in green resilient infrastructure may make those neighborhoods that were previously unattractive become more attractive to a wealthier group of investors, real estate developers, and sustainability-class residents after investment, thereby favoring again the more privileged social groups. Thus, this policy tool must be implemented with other anti-displacement measures, such as rental subsidies, forms of rent control, and community land trusts, in order to guarantee that funding green infrastructure is not inherently displacing vulnerable residents. Green resilient infrastructure funding in socially and environmentally vulnerable neighborhoods

Vignette

Boston, Massachusetts

East Boston, home to mostly Latinx and Italian immigrant populations, has lacked access to public green spaces and long suffered from the air, water, and noise contamination from the Boston Harbor and the Logan Boston Airport. In 1995, the neighborhood gained several new green spaces, such as Piers Park, the East Boston Greenway, Bremen Street Park, and Bayswater Street Park, which were financed by the airport operator Massport to compensate for the environmental and health impacts of Logan Airport (Interview, 2019). More recently, the large-scale 2018 Resilient Boston Harbor Plan lays out several strategies to increase access to green spaces along the waterfront while also mitigating and adapting to increasing flood risks (City of Boston, 2019). This plan builds on Imagine Boston 2030 and advances Climate Ready Boston in four geographical areas along Boston's Harbor: 1) East Boston/Charlestown (identified as Boston's most vulnerable areas), 2) Downtown and North End, 3) South Boston, and 4) Dorchester (City of Boston, 2019). These strategies require collaboration and funding from federal, state, private, nonprofit, and philanthropic partners (City of Boston, 2018). The vision behind this reinvented harbor is to build resilience through improved seawalls, retention areas, and new green areas, making green infrastructure an essential barrier against sea level rise and flooding. Nonetheless, these investments in green resilient infrastructure are also contributing to a real estate renaissance, as more luxury real estate developers increasingly move into the neighborhood, especially along the East Boston waterfront. These real estate projects call for new policy tool and zoning mechanisms to put a break to new development, address soaring gentrification, and build a neighborhood-wide development plan.



Resilient Boston Harbor Plan 2018. Source: City of Boston, 2019 Green resilient infrastructure funding in socially and environmentally vulnerable neighborhoods

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Vignette

Philadelphia, Pennsylvania

Since 2008, Philadelphia has made significant progress toward sustainable development with Mayor Michael Nutter's commitment to making Philadelphia the greenest American city by 2015 (Environmental Protection Agency, 2012). To do so, Nutter created the Office of Sustainability, which only a year later released the city's sustainability plan, Greenworks Philadelphia, Green City Clean Waters Program, the Climate Adaptation Framework and the Beat the Heat Initiative. As part of Greenworks Philadelphia, the 15 sustainability targets in five different areas: 1) energy, 2) economy, 3) engagement, 4) environment, and 5) equity. Each area has its own overarching goal and measurable targets to meet through 166 different initiatives, ranging from more access to wellmaintained parks, access to food, and litter-free streets. By 2013, most of these were either complete or underway however not all neighborhoods in the city have benefited equally from these sustainability initiatives. In particular, communities of color continue to be disproportionately exposed to environmental stressors. Moreover, Central Philadelphia neighborhoods which had gentrified from 2000-2016 received the greatest share of GRI than anywhere else in the city during those same years while the percentage of residents of color dropped significantly in those gentrifying neighborhoods with simultaneous increases in other more climate vulnerable and less protected (by GRI) parts of the city. As a result, in 2017, the Office of Sustainability received funding from Partners for Places, a matching grant program, to launch the Greenworks Equity Index, which is a data-driven tool to trace communities that are not benefiting from existing sustainability initiatives and thereby help ensure that they are endowed with the same benefits (City of Philadelphia, 2017). This index aims to guide the city where to invest in green infrastructure in underserved socially and environmentally vulnerable neighborhoods.

Another example of Philadelphia's commitment to equal distribution of green resilient infrastructure is the establishment of a 10-year Urban Forest Strategic Plan for the City of Philadelphia and its stakeholders. Importantly, the plan envision Philadelphia as "home to a resilient and equitably distributed urban forest that helps residents thrive in every neighborhood" (The Mayor's Fund for Philadelphia, 2020). The plan is not only guided by values of sustainability, but



also environmental justice and community engagement. Given that tree density is currently higher in more affluent neighborhoods in Philadelphia, this plan can reduce the city's tree disparity and related inequalities (Briggs and Jaramillo, 2019).

Developing a healthy and equitable tree canopy. Source: The Mayor's Fund for Philadelphia, 2020

Green resilient infrastructure funding in socially and environmentally vulnerable neighborhoods

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Equitable green development

Other regulations and ordinances

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Other regulations/ordinances

Improved maintenance and security of public space

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Definition

One of the most important qualities of accessible public space is safety — a basic right for citizens that must be protected (EU, 2019). Residents describe not feeling safe in a public space and using it less (Interview, 2019). In general, urban security concerns various forms of crime and an actual or perceived lack of security. It often depends on aspects like social cohesion, innovation, law enforcement, and community empowerment against violence. It also relates to enhancing the protection of buildings and infrastructures. Overall, security is a shared responsibility among various actors, public and private, and at different levels.

The maintenance, cleanliness, and overall upgrading of public and unused spaces and buildings contribute greatly to feelings of (in)security in cities. Moreover, urban infrastructure design and placement play a crucial role in enhancing or weakening this sense of security. Spatial and urban design can therefore contribute to creating an urban environment that is perceived as safe and secure by its residents, such as through improved lighting. In addition, safety-conscious green infrastructure and nature-based solutions can be a powerful tool for achieving a greater sense of security and safety for visitors to public spaces (EU, 2019).



Pou de la Figuera park in Barcelona after redevelopment. The changes to the park were intended to improve safety and functionality while also contribute to community. Despite such intentions, the park has transformed into a point of meeting for petty theft and violence in the neighborhood.

Source: BCNUEJ, 2019

Improved maintenance and security of public space

Strengths and Limitations

Enhancing security and maintenance in cities contributes to promoting a safe, healthy, inclusive, and secure environment enabling all residents to live, work, and participate in urban life without fear of violence or intimidation. It can ameliorate the quality of life, social cohesion, and well-being, as well as the attractiveness of a city and consequently its investment policies and local economy. Furthermore, secure green spaces encourage a diversity of visitors to engage in activities within the confines of a space and provide confidence in the space and its ability to provide social and health benefits.

However, when considering the effectiveness of security measures, it is crucial to reflect on social dimensions of safety and on whose safety is being prioritized. Measures implemented to enhance safety might have the opposite effect for some urban residents, or privilege the interests of some groups over others. For example, the gating of urban environments and the privatization of public spaces permit the wealthier residents to buy safety by separating themselves from the rest of the community (The Conversation, 2018). Seemingly, police use of "sniffer dogs" at train stations, public spaces, and events is more often exercised on aboriginal people and LGBTQI communities (The Conversation, 2016). In addition, homophobic and racial violence is a threat that most vulnerable groups face in cities, and women are likely to be particularly affected by the lack of sense of security (EU, 2019). In the US, for instance, racialized groups have historically faced violence, lynching, and crime in green spaces (Brownlow, 2006; Finney, 2014; Rigolon and Nemeth 2018). For many, green spaces are spaces of segregation and exclusion. Minorities might also feel stared at when in public spaces, which affects their sense of comfort and trust in the space and in others (Anguelovski et al. 2020; Oscilowicz et al. 2020).

Technologies such as cameras, urban supervisor centers, and other platforms can contribute to the prevention of crime and violence in urban environments. However, they are also causing debates in relation to data protection and issues of control and surveillance of racialized groups. In Lyon, for example, community members reported that the use of security cameras leaves behind certain "undesirable" users, preventing them from accessing public spaces (Interview, 2019). Therefore, safety should be particularly guided by principles of recognition as part of achieving social justice (Low & Iveson, 2016).

Improved maintenance and security of public space

Vignette

Cleveland, Ohio

The City of Cleveland is one of the most segregated American cities, characterized by enduring environmental degradation, poverty, violence, and crime. Since the early 2010s, Cleveland has been trying to change its image and become a "green city on a blue lake" through different environmental clean-up and redevelopment projects (EcoWatch, 2015).

Located in the Detroit Shoreway neighborhood and adjacent to Lake Erie, Edgewater Park used to be an undesirable place, perceived as insecure and poorly maintained. The park encompasses over 130 acres of public land and overlooks 6,000 feet of shoreline. However, depleting resources and general upkeep, pollution, and security challenges led the city to lease the park to the Ohio Department of Natural Resources (Metro Parks) in 1978. Since then, Edgewater Park has been extensively cleaned and included in the Cleveland Lakefront State Park, which includes a beach, picnic and fishing areas, a yacht club, and the Edgewater Marina. In addition, the Park offers many activities that helps promote it as the main city attraction, visited and used by all the residents. "They had no money so it was a disaster. I mean it was not safe. It was dirty. (...) [Metro Parks] took it over and completely transformed it. So I think that has had more to do with the health of this neighborhood than anybody really talks about", a resident claimed (Interview, 2019) as environmental amenities such as Edgewater Park brought new attention and investment to the neighborhood. An architect from the neighborhood described the change in the management of the Park as "transformational for becoming an asset to people wanting to live in Detroit Shoreway and Ohio City on the inner west side" (Interview, 2019).



South West of Detroit Shoreway. Source: BCNUEJ, 2019



The entrance to the Edgewater Beach. Source: BCNUEJ, 2019

Improved maintenance and security of public space

Vignette

Lyon, France

Greening is a key political strategy for redeveloping and rebranding Lyon (Shokry, 2018). The area of Mazagran in La Guillotière neighborhood has been particularly subject to gentrification, partially due to the increase in greening projects some of which are still in the consultation phase. These projects include the potential green diagonal pedestrian way and the proposed demolition and development of a new block featuring green space, as well as new housing and facilities. In 2010 the city unveiled its plan to revitalize the neighborhood's public spaces, including the replacement of the community-built Amaranthes garden with a park and children's playground.

Aside from the garden, Mazagran was originally home to many squatters, from which immigrant and refugee families were displaced due to the demolitions. As a result, once a safe and inclusive gathering place for many, including racialized minorities, residents and activists report that Place Mazagran is now segregating activities and groups. What is more, the resulting design has replaced social control with policing and video surveillance. Many residents perceive security cameras as controversial because they exclude certain so-called 'undesirable' users such as visible minority immigrant groups or people of color, preventing them from accessing the space. As some of the inhabitants claimed, these security elements actually make spaces more difficult to be managed by the community, and therefore insecure (Interview, 2019).



Mural street art in Mazagran invoking solidarity and trust. Source: BCNUEJ, 2019

Improved maintenance and security of public space

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Improved green space management

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Definition

As a result of municipal budgetary cuts, public green spaces are often neglected as they are considered of secondary importance compared to the provision of housing, economic development, and other imminent municipal needs. This results in a lack of funds to properly sustain and maintain these sites in safe conditions, ultimately leading to spaces that are not usable or welcoming for residents (Colding, Gren, and Barthel, 2020). To help address this issue, clarification of administrative management of these green spaces is needed in order to prevent the gradual loss of urban green spaces and thus a loss of extremely valuable ecosystem services.

Strengths and Limitations

This process of administration ensures that a competent administrative body or resources will manage the maintenance and security of the green space. Transferring power to larger administrative bodies may provide more resources for the maintenance of green spaces. On the other hand, transferring power to a smaller administrative body, such as a community group, may provide an opportunity for community building and a sense of place that provides an incentive to maintain the green space.

A risk that emerges from this policy tool concerns the potential privatization of urban green spaces. There are numerous examples of how limited or decreased budgets lead to a decline in the quality of urban green spaces, especially due to the decreased number of staff and resources to maintain these (Colding, Gren, and Barthal, 2020). Supported by research, these unfavorable financial situations pressure many park authorities (often local public authorities) to sell parks and green spaces or to transfer their management to private entrepreneurs. This can affect both the accessibility and use of spaces and create a negative impression if private police or surveillance equipment is used (Colding, Gren, and Barthel, 2020). Thus, this trend can lead to worse equity of access as more marginalized groups can potentially feel less welcome, in part due to green gentrification processes that could occur (Anguelovski, Connolly, and Brand, 2018). Finally, if local authorities transfer the management of green spaces to private or semi-private entities, this can result in those authorities losing their power in the long term, which can affect the future provision of urban green spaces.

Improved green space management

Vignette

Cleveland, Ohio

In 2013, several lakefront parks were transferred from the control of the state agency of the Ohio Department of Natural Resources (ODNR) to the Cleveland Metroparks, which is a nationally recognized public park system consisting of 18 reservations (Cleveland Metroparks, 2020b). A particularly successful example was that of Edgewater Park, which many interviewees discussed (Interview, 2019a) as it underwent a fast transformation after Cleveland Metroparks was placed in charge of the management.

The previous state of the park was described by a developer from Cleveland as "so poorly maintained by the state, they gave no resources to it. You almost felt like, when you went down there in the summer [...] that you may have been trespassing on an abandoned park. It was that kind of sketchy. The grass only got mowed once a year. They put no money into landscaping and basic maintenance" (Interview, 2019). It was not only unkempt, poorly taken care of, and considered unsafe but it became the notorious spot for sex trafficking.

After the transfer of management to Metroparks in 2013, Edgewater Park has seen a huge improvement. As another developer from Cleveland described it in the interview (2019), "it's combed, it's well maintained, it's clean, they put investment in it for bathrooms, food, drinks, and they're programming it, they're having events". By being managed with a higher level of care, it has become a very diverse site that now attracts a lot more visitors as well as developers. Thus, Edgewater Park in Cleveland can be regarded as a notable example of a green space that significantly improved after a change in the administrative role over green space management security.



Edgewater Park and Beach successful example of Improved Green Space Management tool.

Source: Cleveland Metroparks, 2020a

Vignette

Dublin, Ireland

In 2015, Dublin's City Council unveiled the strategic document called "The Liberties Greening Strategy" which seeks to significantly improve the urban environmental quality of the central area of the Liberties, a formerly industrial working-class community near the center of the city. This strategy can be seen as an example of improved green space management for its success in fulfilling its vision to improve the public realm's living quality by increasing and enhancing green space areas in residential as well as industrial areas. The Liberties has been one of the city's poorest neighborhoods with limited access to green in both quantity and quality. To address the former, the city hoped to alleviate the lack of tree canopy coverage, just 5 percent when the strategy was proposed, as well as the high population density of the neighborhood, which made for few green spaces . Regarding the latter, the city hoped to include good quality recreational and play spaces for all residents, as in the case of Park Terrace, Oscar Square St. Audeon's and St. Catherine's Park.

The projects proposed by the strategy included the creation of new green spaces, improvement of the environmental quality of civic and hard landscape areas such as that of the Newmarket, and enhancement of local green areas not only by improving the environmental quality, but also by providing more recreational benefits to its users. This strategy has been developed closely together with the Council Drainage Department, so as to incorporate the necessary water considerations to improve water quality and reduced flooding- as successfully achieved in other cities such as Seattle or Philadelphia.



New green space, Weaver Park, in The Liberties, Dublin

Source: BCNUEJ, 2019

Improved green space management

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Improved food security or sovereignty

Definition

Today's increasing urbanization is bringing new challenges for cities, such as the incremental demise of urban green spaces or the difficulty to guarantee food security to all citizens. As urban areas become more populated, the demand for food increases, but its supply is often not distributed equally or accessible to all, leaving many people food insecure. This difference in distribution is particularly evident in healthy foods. In many neighborhoods in the United States especially, the access to healthy foods such as fresh fruits and vegetables is poor and residents only have access to shops that sell low quality and unhealthy food options (Allcott et al., 2019). Moreover, often when the neighborhood undergoes a process of gentrification, this problem remains, as in West Dallas, Texas, and in South Park, Seattle. Often, the gentrification process does not introduce a basic and affordable grocery store with fresh produce; instead, the neighborhood gains unaffordable sources of food such as organic markets, which remain out of reach for poorer residents (Anguelovski, 2015). Particularly prevalent in urban centers in the United States, food deserts are defined as impoverished areas where residents lack access to healthy foods (Hendrickson and Porth, 2012) and food mirages are defined as areas where grocery shops are abundant but prices are far from affordable for low-income households (Alcott et al., 2019; Breyer and Voss-Andreae, 2013). Comprehensive policies that take into account both proximity and price to ensure equal access to healthy food are needed.

Cities evidently have a key role to play in addressing these challenges. A promising planning policy tool that could be used to introduce new green spaces and simultaneously improve a city's food security is to improve food access through urban gardens and farms or rooftop gardens. This tool can be implemented by local authorities, non-governmental organizations, private entities, or even residents themselves.

Strengths and Limitations

This tool has several strengths, namely that it has the potential to respond to two major pressures increasingly felt in cities: the incremental loss of green spaces in cities and urban food insecurity. Many studies have shown that urban agriculture has numerous physical, psychological, and community benefits that they can bring at the individual and community levels, known ecological benefits when introducing new green spaces, and promising solutions to food deserts (Hendrickson and Porth, 2012).

Yet this tool also has some limitations. First, the current literature shows that there are significant barriers to adopting urban agricultural practices, the most challenging being zoning, city ordinances, and access to water and capital (Santo et al., 2016). Second, the risks of food production in the few places where these practices could take place, as these tend to be vacant lands associated with air and soil contamination. It is crucial to ensure that the soil is suitable and safe for food production and to make careful choices of which crops will be planted according to the properties of the soil (Land8, 2014). This health aspect could influence the social acceptance of urban agriculture. Third, although it has the potential to reduce nutritional inequalities, some researchers have also warned against the potential exclusion and marginalization of these practices. Researchers emphasize the white dominance and social exclusion within alternative agri-food systems; despite the studied neighborhoods being predominantly Black, the farmers were mostly white (Santo et al., 2016).

Vignette

Boston, Massachusetts

Studies have found that Boston ranks as the third-lowest city out of 15 major US cities in terms of green space density (Boston Magazine, 2019) and residents report food insecurity is an issue (Interview, 2019). The Office of Food Access in the City of Boston is committed to working towards increasing access to healthy (and affordable) food while also considering the diversity of residents in the city and addressing the lack of urban green spaces in the city. An example of an urban farm that has contributed to greening the city as well as offering greater and improved access to green spaces is the Eastie Farm in East Boston.

Eastie Farm was born in 2015, out of an initiative of residents who decided to turn an overgrown, underused lot in Jeffries Point in East Boston into a space for growing fresh food, accessing urban nature, and building new community ties, while offering educational programs on composting, sustainable growing techniques, and environmental stewardship and resilience. As an interviewee from the Department of Neighborhood Development (DND) in Boston says, "A lot of what food pantries can offer is processed non-perishable items. So the fact that they get fresh groceries delivered by this farm and the neighborhood is amazing" (Interview, 2019). Housing density and gentrification are rising at an overwhelming rate in that area, the farm guarantees not only access to food that would have proven increasingly difficult with the housing density trend, but also a small space to breathe in East Boston (Edible Boston, 2019).



Eastie Farm in East Boston. Source: Holt, 2019

Improved food security or sovereignty

Vignette

Seattle, Washington

The City of Seattle also has a promising example of a greening initiative that improves food access within the city. The Department of Neighborhoods has the P-Patch Community Gardening Program, which currently oversees 89 P-Patches throughout the city (Government of Seattle, 2020). P-Patch is Seattle's term for a city-owned community garden. This program was launched in the early 1970s and by 1993 it was the largest municipal community gardening program. Its gardeners practice organic gardening techniques, help connect people to nature, improve access to local and organic foods, and increase food self-sufficiency and revitalize the city's neighborhoods, among others.

P-Patches improve access to food by producing fresh and organically produced foods not only for personal consumption but also to the city's food banks and feeding programs, thereby improving the community's welfare (The Free Encyclopedia of Washington State History, 2018). Although the base model for a P-Patch is a group of individual plots for rent, the program has made deliberate efforts to ensure more flexibility and inclusivity. In addition, race and social justice have become chief considerations and effort has been put to ensure that all residents have equal access to these community gardens (Opalka, 2012).

However, despite all the achievements that the program has made, it faces increasing pressures of escalating population growth and development boom in Seattle (The Free Encyclopedia of Washington State History, 2018).



Picardo P-Patch in Seattle. Source: Government of Seattle, 2020

Improved food security or sovereignty

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Part 4. Analysis Through Simulation

Understanding anti-displacement, anti-gentrification and equitable green development tools in relation to each other is crucial in the process of reducing or eliminating gentrification/displacement pressures and achieving more equitable green development in city spaces. Informed by a facilitated discussion amongst BCNUEJ researchers related to the tools laid out in this report, this section analyzes the policy tools through a lens of scenario and simulation to ground them in specific contexts. We then use these simulations to provide recommendations and identify best practices.

We present five scenarios, incorporating historical and political contexts, growth characteristics and associated city greening practices (Connolly and Anguelovski, 2021), and socio-environmental challenges, which are intended to act as imagined simulations of cities in the current Global North context. These simulations are developed directly from the characterizations of cities featured in the vignettes and are intended as archetypal profiles that represent the variety of possible contexts which policymakers, planners, and community activists may come across in their practice. The city's type is taken into consideration, especially in relation to its economic growth or decline. One city may encompass a multitude of city profiles, particularly when considering different neighborhoods, resident populations, neighborhood amenities, and historical contexts within a city. We also highlight the potential for positive outcomes as well as unintentional negative outcomes, or *wicked problems*, which result after mixed implementation of the relevant tools and regulations.

These simulations demonstrate that the policy and planning path toward urban green justice lies in finding the right mix of anti-displacement and equitable and inclusive green development tools for the specific context of each city.



Simulation 1. Typical North American municipality

implementation

wicked effects

gentrification pressure in the area,

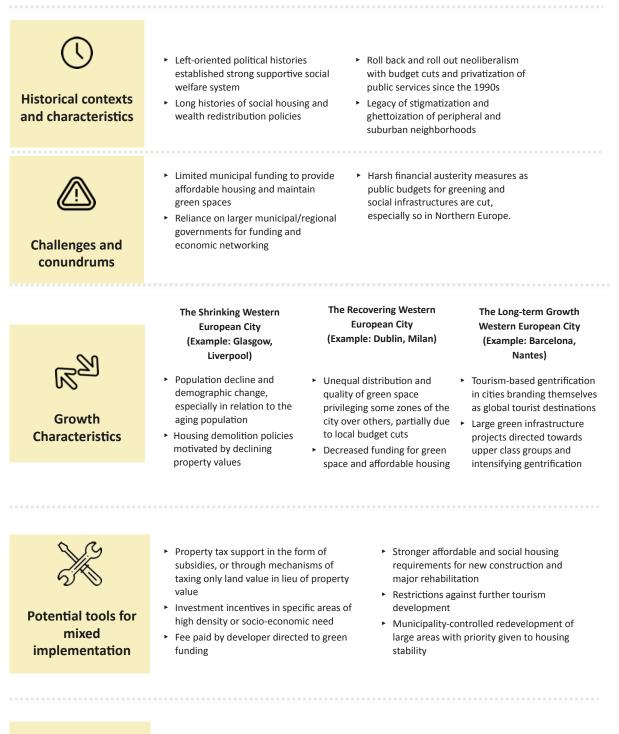
because they cater high-end owners

Example: Detroit, Cleveland, Philadelphia, San Francisco, Seattle, Austin

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Historical contexts and characteristics	 Legacy of slave-trade, share-cropping, and segregation of Black residents; land- grabbing and forced displacement of Native Americans Systemic entrapment of lower- or working-class in social welfare system without significant option to build inter- generational wealth 	 Intrinsic and cultural value of home- ownership as financial wellbeing is tied to property value Strong sense of community organization, 				
Challenges and conundrums	 Significant wealth, housing, and green space inequity, particularly in Black/Latin neighborhoods Lack of funding for affordable housing development and management Historical and cultural preference for home-ownership, with stigmatization and 	municipality, with lack participation and pow	ween developer and a of community			
conundrums	lack of funding for affordable and social	-				
	housing					
	The Shrinking North American City (Example: Detroit, Cleveland)	The Recovering North American City (Example: Philadelphia, San Francisco)	The Long-term Growth North American City (Example: Seattle, Astin)			
$\mathbb{R}_{\mathbb{N}}$	migrations of white residents from urban areas with significant	New economic incentives targeting fast-paced luxury and green developments Non-white areas becoming the target of new	 Exclusive greening regulated within a dominant market- centered ideology of economic development benefitting few at the expense of many 			
Growth Characteristics	 Lack of investment in infrastructure and downtown economic development 	concentrated greening and facing new vulnerabilities from gentrification	 Development centered around key industries (finance, tech, healthcare) 			
	 Center-city housing abandonment and abundance of vacant land Limited but intense new greening in white areas only and widespread but small-area greening in non- white areas 	Intensive local rebranding work around sustainability and livability	 Difficulty in maintaining sense o community and social character of the neighborhoods due to gentrification pressures 			
A 0	To address the green space inequity in	To support individuals to	romain in their			
Yig S	Black/Latinx neighborhoods:	homes:				
S ^r N	 Green resilient infrastructure funding in socially and environmentally vulnerable neighborhoods 	 Rent control/rent subs Property tax payment				
Potential tools for mixed implementation	 Measuring/mapping access to green space Improved maintenance and security of public space 	 To address funding chall Equity-driven loans to affordable housing 	-			
\rightarrow	 Rent control/rent subsidies are importar by may support speculative landlord practices 	 Right to return qualific only marginalized pop certain income level 				
Post-	 Property tax payment support combined with homestead tax credit/tax exemptio applied to the new buildings increase th gentrification pressure in the area 	n cause gentrification ar	nd further push			

Simulation 2. Typical Western-European municipality

Example: Glasgow, Liverpool, Dublin, Milan, Barcelona, Nantes, Amsterdam



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Post-implementation wicked effects

- New green amenities funded by most green financing schemes, such as green bonds, do not consider social dimensions and impacts, and thus may generate unintentional gentrification pressures on surrounding neighborhoods
- Green redevelopment of large areas might still contribute to gentrification in marketrate housing
- Public and social housing do not solve social mobility expectations

Simulation 3. Municipality centered around intensive tourism economy and/or foreign investment

Example: Barcelona, Dublin, San Francisco, Boston

Listorical contexts and characteristics	 Foreign investment provides significant capital to build housing stock and boost economy Municipal objectives to take advantage of attractive historical, cultural, and/or environmental aspects of destinations
Challenges and conundrums	 Steers development to match demand of investors — most often luxury housing Prioritization of tourism economy and investors over needs of local residents as a result of income reliance on tourism and (tax-exempt) foreign firms. Impacts of tourism gentrification include conversion of housing stocks to short-term rentals and hotels, loss of communities, sense of belonging, and sense of place Urban greening often benefits the needs and uses of visitors and tourists
Potential tools for mixed implementation	 Regulations on short-term rental apartments Moratorium on new businesses and hotels Transfer tax on luxury property with funds directed towards affordable housing Tax on foreign ownership of units Tax on vacant housing units Funding for small scale neighborhood green spaces and informal green infrastructure
Post-implementation wicked effects	 Regulation of short-term apartments and new touristic businesses may have negative effects on local residents working in tourism industry and economy The laissez-faire approach to short-term rental regulations may exacerbate affordable housing crisis for local residents Different types of urban greening, especially growth-oriented greening, might still incentivize concentrated private investment





Simulation 4. Municipality with strong justice-centered community activism

Example: Portland, Boston, Washington DC, Montreal



Simulation 5. Smaller/rural municipality or suburb in Western-Europe and North America

Example: Boulder City, Nevada, USA; Canmore, Alberta, Canada; Maresme, Spain

Instorical contexts and characteristics	 Smaller economic power and funding, typically reliant upon a singular industry (i.e. forestry, agriculture, tourism etc.) Urban dwellers seek more affordable living conditions in less-dense municipalities, disrupting the economy and housing availability due to economic resurgence Presence of large networks of accessible and preserved green spaces Economic resurgence around new industries and the green economy
Challenges and conundrums	 Limited municipal funding to provide affordable housing and maintain green spaces Reliance on larger municipal/regional governments for funding and economic networking Environmental justice activism is often countered by strong private investment centered redevelopment Presence of large networks of preserved green spaces, yet may be difficult to access without private cars
Potential tools for mixed implementation	 Opening of private green space to the public Urban agriculture Regular support to housing coops and other non-profit housing organizations Preservation Districts or Historic Districts Creation of a land bank
Post-implementation wicked effects	 Incentivization in specific areas without participation from residents may overwhelm local community organizations and produce intense gentrification pressures in highly contained areas Arrival of new residents attracted by high livability risks overwhelming local services and constrain inter-city mobility
-	 community organizations and produce intense gentrification pressures in highly contained areas Arrival of new residents attracted by high livability risks overwhelming local services and





Part 5. Recommendations: from Simulation to Action

The following recommendations are synthesized from the expertise of urban practitioners and academics drawing from the vignettes discussed and analyzed in the toolkit section of this report. We present these recommendations to challenge policymakers, planners, and community activists across a diverse range of Global North contexts so they may be able to implement a mix of bold and progressive policies and planning tools that provide just and equitable green urban living for all residents.

North American policymakers, planners, & community activists

In many North American contexts, vulnerable communities have succeeded in mobilizing for equitable greening and environmental justice. This mobilization has come as a direct response to a legacy of historical and political racial injustice and a relative dearth of public and affordable housing. In a context of increasing social and racial inequality, North American change-makers face the challenge of continuing to support existing community environmental justice mobilization while also prioritizing affordable and safe housing for all in a context of limited federal support for housing rights policies and property-taxdependent municipalities.

EU policymakers, planners, & community activists

The European context has traditionally benefited from well-funded social housing programs and a general successful management of affordable housing by varying levels of government. This has been accompanied by top-down municipal efforts to provide enhanced green spaces to residents. Lacking, however, is support for civic groups in establishing neighborhood leadership and a robust organizational structure, particularly as housing becomes increasingly commodified and privatized. Participative, green, and equitable community planning should be more widely promoted and can be achieved through the combination of these processes.





Recommendations - North America



Resist and overturn neoliberal policy and planning (focusing on privatization and market mechanisms) and opt for public, institution-led housing practices, with opportunity for rent control and inclusive zoning.



Increase public funding for green space rather than privatization of funding and management by private developers or nonprofits.



Hold developers accountable to mandated fees, taxes, and requirements such as minimum amounts of green space, minimum number of affordable units, and inclusion of affordable units built on site.



Utilize a variety of funding schemes and land use tools to help support the financial hardships of vulnerable tenants/homeowners as well as non-profit and affordable housing developers.



Implement historical and special zoning protections with priority given to the vulnerable communities that will be affected by such land use regulations.



Include community participation and enhance community power in every planning decision, particularly in contexts suffering from deep racial inequality.



Advocate for the preservation, improved maintenance and upgrading, and increased funding of public and affordable housing currently threatened by the increased commodification and neoliberalization of the housing market.



Recommendations - Europe



Support grassroots and community groups through funding and place-making opportunities so as to embrace community organization and other leadership qualities which best represent the needs of vulnerable communities.



Align greening efforts with the needs of vulnerable residents before demands of developers and the market. Support resident-driven greening, both in formal and informal greening projects.



Require local planning agencies to evaluate and mitigate possible neighborhood gentrification pressures and outcomes prior to development.



Continue, and ideally increase, funding of social housing and social welfare services from all levels of government (municipal, state/provincial, and national government).

Global Recommendations



Recognize urban greening as a non-isolated intervention from other urban redevelopment initiatives which may trigger unaffordability and displacement for socially vulnerable residents. These other initiatives may affect housing, transport, commerce, historic districts and waterfront redevelopment, schools, crime, and jobs, among others.



Consider historical and ongoing contexts of injustice in a municipality as a critical first step in understanding the uses, preferences, knowledges and needs of socially vulnerable residents and how best to address them through funding and placemaking opportunities that embrace community organization and leadership to best sustain the needs of vulnerable communities.



Recognize power asymmetries within communities and in relation to government and non-governmental agencies. Self-assess preconceived notions of place and way of life, especially when life experiences differ from one's own. Implement innovative participatory planning practices and community engagement in the (re)development of all green spaces and green amenities such as community mapping, neighborhood photovoice and exploratory walks.



Support housing stability—critical for economic, physical, and mental wellbeing— through density bonuses, inclusionary zoning, and/or anti-displacement neighborhood benefits agreement aiming to ensure affordable housing provision. All such policies should be coupled with policies to prevent tenant displacement, such as rent control, subsidies and use of land banks.



Ensure equal access to green space first through mapping and benchmarking, followed by implementation of policies that mandate a minimum area of green space per resident in order to provide opportunity for urban food agriculture and achieve positive mental and physical health outcomes for all. Revive and fund informal, hidden, or invisibilized resident-driven green practices.



Provide green spaces that can be both safe and secure for socially vulnerable residents, especially racialized minorities, women, people with disabilities and LGTBQI+ communities without creating heavily surveilled or coercive places where these their uses and identities are erased or criminalized to defend the green privilege of a few. Encourage racialized residents, and youth in particular, to occupy public green spaces and make them their own and thus fight socio-cultural displacement produced by gentrification.



Improve climate change mitigation and adaptation through environmental development tools such as the designation of Eco-District zoning, employment of green bonds, or conservation areas to preserve green spaces, while also considering the social impacts of such measures.

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Enhance equitable and inclusive climate change adaptation policies by reframing green resilient infrastructure as a means for community-led development, socio-ecological security and sustained livelihoods through Eco-District zoning, urban food production and living wage jobs.

Part 6. Conclusion

Overall, our recommendations are based on the notion that the appropriate mix of anti-displacement and equitable and inclusive green development tools for the specific context of each city can achieve urban green justice.

These recommendations aim to 1) prevent displacement that results from the (re)development of green amenities in cities of the Global North and 2) improve the accessibility and equitability of urban green spaces for all residents. It is important to note that the measures also present some limits, and their successful application depends on both the specific urban context and their combination with other greening and housing tools.

An ideal green and just city has:



Climate change mitigation and adaptation enhanced by sustainable planning strategies, such as the designation of eco-districts or conservation areas

Positive mental and physical health outcomes supported through inclusive and accessible greening





Housing stability encouraged through developer-focused policies and complemented by anti-displacement measures

Food security improved through community-led and cooperative urban agriculture projects





Land and new spatial arrangements controlled and repaired through land use regulations





Appendices

Appendix A. List of Stakeholders

	_	Tool name	^{Esnante}	de la contraction de la contractica de la contra	Municosta	See Do Contraction Contraction	Gorenner Soutenner	Subanical and Subanical Su	Ceres Constant	Action of the second se	400 minut	Pasterines Pasterines Pasterines
		Inclusionary zoning										
		Up-zoning										
		Rezoning of green space to residential space										
		Preservation Districts or Historic Districts										
	Land use	Regulations on touristic/short- term rental apartments (e.g. AirBnB)										
		Moratorium on new businesses, hotels, and other hospitality industry permits										
		Defence of single family homes or minimum lot size										
		Community Land Trusts										
ent		Land bank										
eme	irements/ t	Obligation for developers to include affordable units in development										
olac	Developer requirements/ support	Density bonuses to encourage affordable housing										
Anti-displacement	Deve	Support for developers to develop empty lots or buildings into affordable housing										
Anti-		Property tax payment support for homeowners										
	ស៊	Homestead tax credit/tax exemption										
	lomeowne	Limitations or freezes to property tax increases										
	aimed at h	Housing tax credit programmes										
	l schemes	Loans for home ownership for middle/ low-income residents										
	Housing focused financial schemes aimed at homeowners	Development tax paid by developers towards an affordable housing trust fund										
	ing focuse	Transfer tax on luxury property with funds directed towards affordable housing										
	Hous	Tax on foreign ownership of units										
		Tax on vacant housing units										

Appendix A. List of Stakeholders

		Tool name	lenents	toneon of the second	Municipality	See	Cuentinent	Storanie Santanio Santanio entrone	Oeren Dere	O. W	45000000	450 Clumes
	Housing focused financial schemes aimed at homeowners	Rent control at the municipal, regional, and national level										
		Rent subsidies or vouchers										
nt	Community focused financial schemes	Investment incentives in specific areas - Opportunity Zones, Strategic Development Zone, Special Interest Zone, Business Improvement District)										
eme	Cc focus s											
Anti-displacement	ordinances	Formal recognition of the right to stay/place OR right to return										
i-dis	Other anti-gentrification regulations/ordinances	Municipality or tenant opportunity to purchase act										
Ant	itrification re	Public workforce housing										
	her anti-ger	Equitable economic development plans with opportunity for equitable access to jobs										
	ot	Equity scoring/evaluation/index of urban projects										
		Eco-district zoning and climate change mitigation										
oment		Rezoning of urban land to green space										
		Opening of private green space to the public										
evela		Ambitious green space development plan										
en d	Land use	Green amenity planning in large- scale urban developments										
gree		Conservation areas to preserve green spaces										
able		Interim green spaces on vacant land										
Equitable green develo		Repurposing of streets to green transit areas										
		Measuring/mapping access to green space										
		Waterfront redevelopment										

Appendix A. List of Stakeholders

		Tool name	1. Julie	roneeunees	Municipality	State House State	Cot Fool	Guodana Olamation Alicente	Developered	O 40,00 O 40,00 Million	A Contraction of the second	de de lesi
	loper ments/ port	Fee paid by developer directed to green funding										
Πt	Developer requirements/ support	Minimum amount of green space in new development projects										
Equitable green development		Specific national financial schemes to fund green infrastructure or parks										
velo	mes	Green bonds										
n de	Financial schemes	Regulations to support the development of urban agriculture										
lreer	Fin	Increased budget for new/ improved urban green amenities										
		Green resilient infrastructure funding in socially and environmentally vulnerable neighbourhoods										
uitak	Other greening regulations/ ordinances	Improved maintenance and security of public space										
		Clarification over administrative roles for green space management-security										
	Other gr	Urban agriculture										

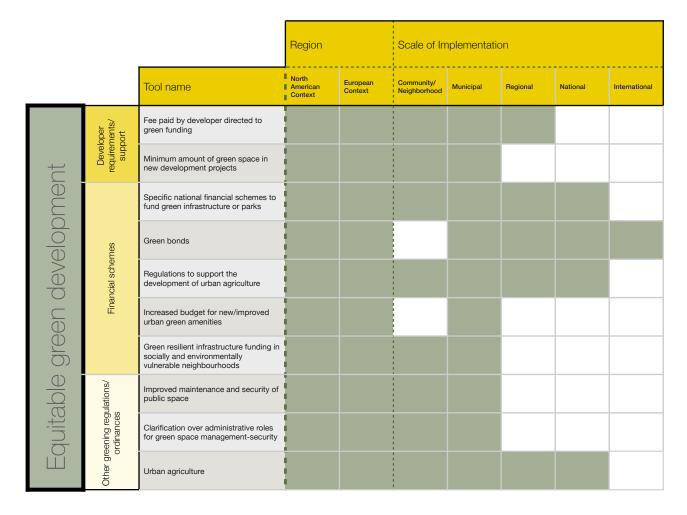
Appendix B. List of Regions and Scales of Implementation

			Region		Scale of Im	plementatio	วท		
	_		North American Context	European Context	Community/ Neighborhood	Municipal	Regional	National	International
		Inclusionary zoning							
		Up-zoning							
		Rezoning of green space to residential space							
		Preservation Districts or Historic Districts							
	Land use	Regulations on touristic/short-term rental apartments (e.g. AirBnB)							
	Lan	Moratorium on new businesses, hotels, and other hospitality industry permits							
		Defence of single family homes or minimum lot size							
nt		Community Land Trusts			1 1 1 1 1				
imel		Land bank							
ace	er support	Obligation for developers to include affordable units in development							
displ	Developer requirements/support	Density bonuses to encourage affordable housing							
Anti-displacement	require	Support for developers to develop empty lots or buildings into affordable housing							
A	(0	Property tax payment support for homeowners							
	leowners	Homestead tax credit/tax exemption							
	d at hom	Limitations or freezes to property tax increases							
	Housing focused financial schemes aimed at homeowners	Housing tax credit programmes							
	al schem	Loans for home ownership for middle/ low-income residents							
	d financie	Development tax paid by developers towards an affordable housing trust fund							
	l focused	Transfer tax on luxury property with funds directed towards affordable housing							
	Housing	Tax on foreign ownership of units							
		Tax on vacant housing units							

Appendix B. List of Regions and Scales of Implementation

			Region		Scale of Im	nplementati	on		
		Tool name	North American Context	European Context	Community/ Neighborhood	Municipal	Regional	National	International
	Housing focused financial schemes aimed at homeowners	Rent control at the municipal, regional, and national level							
int		Rent subsidies or vouchers							
Anti-displacement	Community focused financial schemes	Investment incentives in specific areas - Opportunity Zones, Strategic Development Zone, Special Interest Zone, Business Improvement District)							
plac		Regular support to housing coops and other non-profit housing organizations							
-dis	Other anti-gentrification regulations/ordinances	Formal recognition of the right to stay/ place OR right to return							
Anti	egulations,	Municipality or tenant opportunity to purchase act							
	trification 1	Public workforce housing							
	er anti-gen	Equitable economic development plans with opportunity for equitable access to jobs							
	Oth	Equity scoring/evaluation/index of urban projects							
		Eco-district zoning and climate change mitigation							
nent		Rezoning of urban land to green space							
ome		Opening of private green space to the public							
/elop		Ambitious green space development plan							
dev	esr	Green amenity planning in large-scale urban developments							
reen	Land use	Conservation areas to preserve green spaces							
le gi		Interim green spaces on vacant land							
Equitable green develo		Repurposing of streets to green transit areas							
Edr		Measuring/mapping access to green space							
		Waterfront redevelopment							

Appendix B. List of Regions and Scales of Implementation



Appendix C. List of all Policy Tools and Regulations

ANTI-DISPLACEMENT POLICY RESPONSES (30)

Land use	Developer requirements/ support	Housing focused financial schemes aimed at homeowners	Housing focused financial schemes aimed at renters	Community focused financial schemes	Other anti- gentrification regulations/ ordinances
Inclusionary zoning	Obligation for developers to include affordable units in development	Property tax payment support for homeowners	Rent control	Investment incentives in specific areas - Opportunity Zones, Strategic Development Zone, Special Interest Zone,	Formal recognition of the right to stay/place OR right to return
Up-zoning	Density bonuses to encourage affordable housing	Homestead tax credit/ tax exemption	Rent subsidies or vouchers	Regular support to housing coops and other non-profit housing organizations	Municipality or tenant opportunity to purchase act
Rezoning of green space to residential space	Support for developers to develop empty lots or buildings into affordable housing	Limitations or freezes to property tax increases			Public workforce housing
Preservation Districts or Historic Districts		Housing tax credit programmes			Equitable economic development plans with opportunity for equitable access to jobs
Regulations on touristic/short-term rental apartments (e.g. AirBnB)		Loans for home ownership for middle/ low-income residents			Equity scoring/ evaluation/index of urban projects
Moratorium on new businesses, hotels, and other hospitality industry permits		Development tax paid by developers towards an affordable housing trust fund			
Defence of single family homes or minimum lot size		Transfer tax on luxury property with funds directed towards affordable housing			
Community Land Trusts		Tax on foreign ownership of units			
Land bank		Tax on vacant housing units			

Appendix C. List of all Policy Tools and Regulations

EQUITABLE GREEN DEVELOPMENT (20)

Land use	Developer requirements/ support	Financial schemes	Other greening regulations/ordinances
Eco-district zoning and climate change mitigation	Fee paid by developer directed to green funding	Specific national financial schemes to fund green infrastructure or parks	Improved maintenance and security of public space
Rezoning of urban land to green space	Minimum amount of green space in new development projects	Green bonds	Clarification over administrative roles for green space management-security
Opening of private green space to the public		Regulations to support the development of urban agriculture	Urban agriculture
Ambitious green space development plan		Increased budget for new/ improved urban green amenities	
Green amenity planning in large- scale urban developments		Green resilient infrastructure funding in socially and environmentally vulnerable neighbourhoods	
Conservation areas to preserve green spaces			
Interim green spaces on vacant land			
Repurposing of streets of green transit areas			
Measuring/mapping access to green space			
Waterfront redevelopment			

Appendix D. Glossary

Term	Definition
ACCOUNTABILITY	involves processes and systems used to hold individuals or institutions in check for their actions and decisions
AFFORDABILITY	is not a particular number; it is a marker for how much some- one can comfortably afford without having to sacrifice other basic needs. When it comes to housing, affordability is measured as being no more than 30% of household monthly income.
ANTI-RACIST	refers to the active process of identifying and eliminating racism by changing systems, organizational structures, policies and practices and attitudes, so that power is redistributed and shared equitably. (from NAC International Perspectives: Women and Global Solidarity)
AREA MEDIAN INCOME	is a measure for median income for a specific area, where half of the population earns more and half earn less.
CAPITALISM	is an economic system that depends on constant growth through the accumulation of capital (wealth). Anticapitalism is the movement and ideological opposition to this system, rooted in a critique of colonialism, imperialism, and exploita- tion.
CO-CREATION	is a framework for participatory action wherein power, decision- making, and planning are democratized so as to build an environment where ideas are formulated and actualized collectively with a focus on community involvement.
COMMODIFICATION	refers to the process of treating a material, service, or idea as a commodity to be bought, sold, or traded in the open market. Decommodifica- tion, therefore, is the separation of a material, service, or idea from market valuation.
COMMUNITY DEVELOPMENT	refers to practices that promote income generation, improved access to green and public space, safe and affordable housing, and overall right to place by and for neighborhood residents often long term or socially vulnerable residents
COOPERATIVE ECONOMIES	are economic systems based on shared prosperity, enacted through practices like collective ownership, redistribution, and shared resources.
DISPLACEMENT	is the forced physical, cultural, or emotional severance that an individual or group might experience from an area where they historically found home and community. The "force" here is not necessarily direct, but rather refers to the condi- tions that lay the groundwork for displacement to take place.
ENVIRONMENTAL AMENITIES	are natural benefits that we get from our environment including clean air, water, beauty, and much more. Other green ameni- ties are part of the built environment like parks and gardens.
ENVIRONMENTAL JUSTICE	is a movement that came out of Black strug- gle against disproportionate environmental burdens. Environmental justice understands that environmental conditions interact with and reflect systems of oppression.
EQUITY (SOCIAL)	is a measure of justice where all can thrive and prosper, taking into account the impacts of historic and ongoing oppression.
EQUITY (FINANCIAL)	refers to the net monetary value an asset holds. In the housing market, when property gets more valuable over time it is building equity, whereas limited-equity housing places caps on how much value home assets can accrue.
FINANCIALIZATION	is a process whereby financial markets, financial institu- tions and financial elites gain greater influence over economic policy and economicoutcomes.
GENTRIFICATION	describes the transition of a community from low-income or working-class status to middle-class or affluent status, largely through in-migration and replacement of existing residents. Gentrification usually has highly racialized impacts and connotations.
GREEN/ ENVIRONMENTAL GENTRIFICATION	is the process whereby green investments and the seemingly progressive discourse of urban sustain- ability drive up property values and increase displacement pressures on communities of color and low-income residents.
GREEN INFRASTRUCTURE	in its technical definition, is infrastructure that provides traditional municipal services working with and harnessing the power of natural systems. More broadly, it is all physical infrastructure involving green amenities.

Appendix D. Glossary

Term	Definition
GOVERNANCE	refers to how institutions both public and private plan, finance and manage policies or projects. It involves a continuous process of negotiation and contestation over the allocation of social and material resources and political power.
INVESTMENTS	are assets acquired with the goal of generating income or appre- ciation over time.
JURISDICTION	is the power or right of a legal or political agency to exercise its authority over a person, subject matter, or particular territory.
JUST GREEN ENOUGH	is a park revitalization framework from the green gentrification academic literature. It suggests countering gentrification through community centered park development rather than splashy large-scale remodels. Some critique this theory as one that promotes lower quality parks for communities of color and low-in- come neighborhoods.
MARGINALIZATION	refers to the systemic exploitation of systems, institutions, and people that deny them access to participation, power, and resources.
PRIVATIZATION	is the process of moving control from the public sphere to private business or private non-profit interests, employing the argument that privatization maximizes efficiency and minimizes costs.
PROPERTY	an asset with market value held in ownership by an individual or group and protected by law.
PUBLIC-PRIVATE PARTNERSHIPS	involve collaboration between a government agency and a private-sector entity that can be used to finance, build, and operate projects meant for both public and private benefit.
RACIALIZATION	is the process of externally imposing ethnic or racial identities to a relationship, social practice, or group that did not identify itself as such.
RENT-BACKED SECURITIZATION	is a way for banks to bundle rents and sell them to investors through the stock market. Turning rental housing into an investment mechanism has encouraged landlords to minimize basic housing maintenance while maximizing rents.
RENT GAP	is a theory that describes the disparity between the current rental income of a property and the potentially achievable rental income.
SOLIDARITY	reflects an understanding of shared liberation through building actions and systems of mutual support across identity and experience of oppression.
SPECULATIVE DEVELOPMENT	is a real estate practice wherein developers purchase property with the expectation of turning a profit through sale or demolition rather than rental income or land use.
SUSTAINABILITY	is the physical development and institutional operating practices that meet the needs of present users without compromising the ability of future generations to meet their own needs, particularly with regard to use and waste of natural resources.
SUSTAINABLE DEVELOPMENT	lies at the intersection of economic, environmental, and societal interests to build economies that work for everyone in the context of environmental concerns.
TYPOLOGY	is a method of classification according to general type. Urban typologies then refer to different classifications of cities based on factors such as size, governance structures, and environments.
URBAN PLANNING	refers both to a process and a professional practice of designing the physical development of a city or region using a variety of regulatory and legal tools.
URBAN RENEWAL	is a system of urban "revitalization" involving demolition, reconstruction, and displacement. It is most notably associated with a period of urban planning in the second half of the twentieth century.
VULNERABILITY	describes the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

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