PEAK Urban

Grounding Sustainable Development Goals (SDGs) through existing territorial planning instruments

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This brief sheds light on how Sustainable Development Goals (SDGs) can be achieved in a city by linking existing territorial planning instruments and other municipal legislative tools to the SDGs. When linked effectively, progress toward achieving SDGs transcend any administration's development plan and political priorities without detracting from their autonomy.

The United Nations' Sustainable Development Goals (SDGs) are a joint commitment to address global challenges such as poverty, conflict and climate change. Although these challenges are worldwide, countries are encouraged to localize SDGs considering their own contexts, experience and resources. Subnational governments — and cities, in particular — are important facilitators of adapting global goals to local contexts for several reasons. First, although global problems are a result of unsustainable practices, many of these practices are concentrated in cities. Second, many cities have efficiently implemented contextually appropriate governance mechanisms. Third, cities are often responsible for designing and applying territorial planning instruments at the district and neighbourhood levels, which have a direct impact on quality of life and sustainable urban development.

Cities in low- and middle-income economies often bear a disproportionate number of complex problems, such as poverty and ineffective governance, which makes them more vulnerable to the impacts of, for example, climate change (Culwick et al., 2019). Institutional inertia, bureaucracy and tradition can impede ideas and frameworks that help cities achieve local sustainability goals and fulfil national and international commitments. However, many cities have become important sources of innovative solutions to problems shared with similar cities. It is therefore paramount to support and strengthen local initiatives for positive change.

The UN-endorsed New Urban Agenda puts forth a shared vision for urbanisation as a tool for sustainable development (Habitat III Secretariat, 2017). The Agenda promotes the use of territorial planning mechanisms to achieve the SDGs. City networks, non-governmental organizations and academia are also working in support of efforts to achieve the goals. **A central question remains: How can the existing strengths and previous accomplishments of local governments be leveraged? The case of Medellín provides clear ways forward.**

Linking SDGs to high-level planning instruments such as Master Plans is not enough to achieve localization. Cities achieve desired change through lower-scale territorial planning instruments rooted in local legislation. These instruments are highly compatible with the SDG framework. **The formulation of second and third-level planning instruments, together with other territorial development instruments such as Municipal and Local Development Plans, must be explicitly connected to SDGs from the diagnosis and formulation phases; they must clearly outline how proposed projects systematically impact all relevant SDGs.**

Does Medellin need to develop new tools to implement SDGs?

The city has vast experience in the formulation and implementation of territorial planning instruments, which can be leveraged for the implementation of SDGs.

The most important planning instrument for cities like Medellin is the Master Plan, which generally mandates its occupancy, growth and development models. The plan outlines complementary planning, financing and management instruments to achieve development, as well as their normative and geographic scope. However, Master Plans do not allocate financial resources; rather, it is through Municipal Development Plans that each incoming administration allocates its budget and sets priorities for the materialization of the Master Plan, among other things, during its tenure.

Developing and learning how to use new tools are resource-demanding processes. Instead of crowding out local measures of change, cities should complement and strengthen them. Particular attention should be given to leveraging tools that cities are familiar with and have proven to work.

Medellin started successfully developing and implementing territorial planning tools during the first decade of the 2000s. The Northeastern Integral Project (Proyecto Urbano Integral Nororiental, or PUI, for its acronym in Spanish) was one of the key tools used during the period known as Social Urbanism (2004-2012). The PUI proposed an alternative approach to dealing with informal settlements. It comprehensively intervened with high architectural standards and all aspects of built public space, like the environment, housing, and transport. The aim was to evoke pride in the built environment of the neighbourhood among its residents; thus, filling a void left by the lack of effective

government presence, social segregation, poverty and violence. The PUI included significant neighbourhood improvements, such as libraries, parks, entrepreneurship development centres, and improved education, health and justice facilities.

Interventions were designed and implemented with the intention of having high replicability in communities with similar conditions. The area chosen to implement the PUI — the Northeastern comunas — was where the first public gondola lift system in Medellín was built. The gondola had significant positive impacts on mobility, including the reduction of travel times and improvement of safety, and on the local economy (Brand and Dávila, 2011). Additionally, the gondola is credited with a reduction of violence, according to Cerdà et al. (2012). A 66% decline in the homicide rate and 75% decrease in local reports of violence were found when compared to control neighbourhoods (see also Canavire-Bacarreza et al., 2016).

Why use second and third-level territorial planning instruments to advance the implementation of SDGs?

These instruments facilitate the identification of actions required to achieve goals such as ending poverty, protecting nature and guaranteeing sustainable human settlements in a city.

Medellin's administration has significantly invested in clearly defined changes that need to be measured, by setting out indicators and targets for the localization and implementation of SDGs. The COMPES 1 and Agenda Medellín 2030 documents constitute key examples of these efforts. However, the instruments and mechanisms to achieve intended changes are not so clear or explicit.

Cities like Medellín have a cascade-type urban planning. The Master Plan (first level) sets more general directives and guidelines for how the whole city should pursue its physical and spatial development. Second-level instruments address large geographic areas in order to assess required actions, in line with the Master Plan. Third-level instruments materialize change by acting on the city at smaller geographic areas that share characteristics related to their morphology, architectural and urbanistic features, population density and socioeconomic characteristics.

There is a missed opportunity to implement SDGs at the local level because the SDG goals are not sufficiently well articulated with existing second and third-level territorial planning instruments. Through these planning instruments, together with local participation, data can be obtained, samples analysed, censuses conducted, and different achievements verified, as exemplified in Box 1. It is through these activities that we can create better-informed decision-making processes and support evidence-based governance in our cities.

Box 1: SDGs #3, #4, #9, #10, #11, #13 and #15 in focus via second and third-level planning instruments

The Medellín river is a natural corridor that divides the city. In addition, the mobility and industrial systems were designed to run parallel to it, accentuating this divide. As a result of devoting this space to automobiles and industry, the area lacks public space, has high levels of chemical and auditive pollution, and presents an inefficient use of valuable urban land.

One strategic *Macroproyecto* (a second-level planning instrument) analysed these problems and proposed a series of public amenities related to education, culture and community life, among others, and the densification of the area to manage urban sprawl. It included the construction of the first phase of a large metropolitan park that addresses many of these problems by increasing available public space, mitigating auditive pollution — as it proposes to bury sections of the highway — and linking the riversides to promote connectivity in the city.

Medellin has built a substantially positive international reputation, on which it now depends greatly. Largely as a result of the notion that Medellin works to join global sustainable development agendas, it has attracted tourism, foreign investment and important events to the city. Effectively linking municipal planning instruments to SDGs is one way to maintain this reputation and address emerging critiques to its model (see, e.g., Franz (2017) and Garcia Ferrari et al. (2018)).

Can other cities in low- and middle-income (LMICs) countries apply the experiences from Medellin?

The territorial planning instruments that Medellin has developed and applied have been useful in addressing challenges faced by these cities.

Numerous cities in low- and middle-income countries have similar characteristics and challenges as Medellin and can benefit from its experience. Among these characteristics are population growth mainly from migration, maturing public institutions, some financial stability, and aging infrastructure. Many have acquired good experience or have developed efficacious governance tools. Additionally, other cities in these countries experience challenges previously faced by Medellin. Among these challenges are accelerated growth, the proliferation of informal settlements, and the deterioration of public space.

The housing project along the Juan Bobo creek area (See Box 2) has been particularly transformative and can even be considered to have disrupted ongoing insecurity and violence resulting in part from the lack of connectivity and disinvestment. Comprehensive and intersectoral municipal interventions have served to address, at least in part, issues emerging from the persistent proliferation of informal settlements and ongoing violence, thereby achieving the intended goal of urban renewal and the improvement of liveability indicators.

Box 2: The case of the Juan Bobo neighbourhood

Juan Bobo is located in the North-eastern hillsides of Medellin, where the first gondola lift was built. The main tool used in the context of Social Urbanism in the area was the PUI, as mentioned earlier. The municipal administration quickly realized that the aerial transportation project could not be delivered without complementary services and infrastructure that addressed the breadth of issues faced by residents. Thus, although planners considered the gondola as the backbone for the transformation of the area, they also intervened to address serious housing issues, environmental risks associated with the Juan Bobo creek, insufficient public space and the lack of connectivity between neighbourhoods due to geographic features. A main objective became to offer in-situ housing solutions to all those affected by works or found to be living in risky conditions. Walking paths were also improved considering their importance for the area and its inhabitants. In fact, one of the project's most noteworthy interventions was the construction of a bridge that connects two neighbourhoods of rival gangs that fought each other from the creek's banks.

The success of this strategy can be attributed largely to its governance mechanisms. First, both planning and execution were carried out simultaneously, which avoided ill-conceived plans removed from the local micro-level neighbourhood context. Second, social services were provided alongside effective dialogue with and between the local communities for the duration of the project. Third, every design and physical intervention was made to the highest technical standards possible, making the architectural elements of the built environment a key contributing factor to profound transformations.

Image: Juan Bobo Source EDU

Can the private sector become involved in SDG implementation efforts in the city?

Although legislation and enforcement are the responsibility of the State, the SDG localization process in Medellin promoted the participation of non-public actors.

The private sector has actively performed oversight activities in different aspects of city life and on the fulfilment of the administration's constitutional duties. A good example is the national city network *Cómo Vamos*, a watchdog organization financed by the private sector (see TRENDS, 2019). The network has reported since 2006 on quantitative city indicators, including security, utility coverage, public space, education, housing and mobility. The network administers a program called "citizen perception surveys", which report on citizen satisfaction in various areas including education, housing, government, economy and equality. *Medellin Cómo Vamos* actively participated during the SDG localization process. Its monitoring and data collection efforts can contribute greatly to the construction and monitoring of indicators. Additionally, the network's regular contact with citizens to assess perceptions and opinions about general SDG implementation and urban development can be used to administer public education campaigns and other relevant communication activities.

Can SDGs be articulated with citizen participation tools?

Local Development Plans (LDPs) are built with significant citizen participation and are an important contribution to the city's development and must be aligned with its Master Plan. Including explicit links to SDGs in these plans constitutes an opportunity to articulate SDGs with citizen participation tools.

The municipal administration can allocate resources to projects prioritized by LDPs through its Municipal Development Plan. In addition, up to five percent of Medellin's municipal budget is allocated directly by citizens to projects prioritized in community fora, in a process known as 'Participatory Budgeting' (OPPCM, 2017). However, according to the City Council's Public Policy Oversight Office (OPPCM) (2017), there has not been a mechanism in place to monitor, evaluate and control Local Development Plans (LDPs) since they were first formulated in 2005. The objective of a rigorous evaluation exercise would be twofold. First, to elucidate the effectiveness of LDPs in achieving development and impact goals. Second, to identify problems and challenges that need to be addressed. Despite the lack of a centralized evaluation system, the LDPs of neighbourhoods (comunas) 3, 8, 9, 12, 13 and 16 and Rural District 90 were updated in 2019. Currently, these updated LDPs only mention SDGs but fail to include a coherent framework to achieve them. Some Plans even mention an SDG workshop, but do not report on the results or explain how the workshop(s) were used to inform the Plans.

LDPs represent the invaluable opportunity to close the gap between top-down SDG implementation strategies and bottom-up local development initiatives. They are designed by communities and supported by technical municipal staff. This staff can ensure that LDPs are in line with existing territorial instruments. Furthermore, the process of formulating LDPs is an invaluable opportunity to train citizens on SDG-related considerations and articulate citizen initiatives with the city's sustainability agenda. In addition, a shared framework and the use of SDG-focused terminology can guide public understanding of complex issues and connect grassroots ideas with global cooperation initiatives, giving communities access to resources and support to advance their ideas, while further legitimizing their initiatives.

Further reading

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About us

The PEAK Urban programme aims to aid decision-making on urban futures by:

1. Generating new research grounded in the logic of urban complexity;

2. Fostering the next generation of leaders that draw on different perspectives and backgrounds to address the greatest urban challenges of the 21st century;

3. Growing the capacity of cities to understand and plan their own futures;

In PEAK Urban, cities are recognized as complex, evolving systems that are characterised by their propensity for innovation and change. Big data and mathematical models will be combined with insights from the social sciences and humanities to analyze three key arenas of metropolitan intervention: city morphologies (built forms and infrastructures) & resilience; city flux (mobility and dynamics) and technological change; as well as health and wellbeing.

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Our framework

P — Prediction — What can we now predict and project about cities?

E — Emergence — What types of urban structures and systems are emerging?

A — Adoption — ¿Cómo adoptan las ciudades las nuevas ideas y tecnologías?

K — Knowledge exchange — How can we maximize this knowledge globally?

The PEAK Urban programme uses a framework with four inter-related components to guide its work.

First, the sciences of **Prediction** are employed to understand how cities evolve using data from often unconventional sources.

Second, **Emergence** captures the essence of the outcome from the confluence of dynamics, peoples, interests, and tools that characterize cities, which lead to change.

Third, **Adoption** signals to the choices made by states, citizens and companies, given the specificities of their places, its resources and the interplay of urban dynamics resulting in changing local power and influence dynamics.

Finally, the **Knowledge** component accounts for the way in which knowledge is exchanged or shared and how it shapes the future of the city.