Today, for the first time in history, more than 50% of the world’s population live in urban centers, and it is estimated that before 2050 this percentage will reach 75% (ONU-Hábitat, 2006). These figures illustrate the resounding extent to which urbanization is an irreversible process, and the way in which the city has become a primordial theme in the international political agenda.

In the coming decades, growing urbanization will be principally absorbed by the cities of developing countries. It is estimated that by 2030, 80% of the world’s urban population, equal to 4 billion habitants, will reside in the cities of Asia, Africa and Latin America (2006). While it is true that a higher rate of urbanization implies the need for more stable economies, more competitiveness, employment generation and stronger institutions, there is also a need to take into account the enormous challenges that this phenomenon implies.

The urbanization process is necessarily linked to a growing demand for land, public services, housing and infrastructure, all elements which place strong pressure on national and local public institutions. For this reason, as well as due to the recurrent incapacity of the governments of developing countries to supply this demand and guarantee to every citizen what in Brazil has been defined as the right to the city (Fernández, 2001). From the mid-point of the past century, an alternative and spontaneous form of making cities

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1 In this group of regions, Asia and Africa are the ones that present the highest rates of urban growth, with an average of 4% per annum. On the contrary, Latin America presents a more moderate growth rate due to the fact that its urbanization level stands today at 77%.
began to appear, associated with the production of informal settlements. These types of settlements, distinguished, depending on the country, by names such as tugurios, villas miserias, favelas, katchi abadis, slums, etcetera, today represent a common element in our cities, if one thinks that in the world, one in every three inhabitants currently reside in informal-type neighborhoods (ONU-Hábitat, 2008). These housing solutions, while on one hand, try to respond to the city and especially, housing, via methods of self-administration and construction; on the other hand, due to their formative processes, they present serious inequalities in terms of their physical, environmental and social character, all of which have a dramatic incidence on the quality of life of the cities’ inhabitants.

According to the operational definition used by the ONU-Hábitat (2003), an informal settlement is characterized by the way it displays one or more of the following conditions: critical overcrowding, critically precarious state of the housing (in relation to the physical structure and its environment), absence of some of the necessary public services and illegality of tenure. Although these conditions allow one to comprehend the degree of informality of a settlement, they are limited to classifying the problem from within a purely physical and legal perspective, leaving aside the socio-economic dimension despite its importance for an integral interpretation of the phenomenon.

If not all of the urban poor people necessarily reside in slums (2003), it is clear that there exists a direct correlation between informality and poverty, where both finally become cause and effect, one of the other. On one side, urban informality is born as a consequence of the economic inability of poor people to enter into the formal city. On the other side, as poverty is understood also as deriving from having a low level of education and precarious health, a degrading habitat leads to, on its own, a worsening of the conditions of poverty (ONU-Hábitat, 2006).

Additionally, the informal sectors of a city generally tend to coincide with the areas that generate crime and violence, as a consequence of the high degree of social inequality that distinguishes these areas from the formal city (2006). From the favelas of Rio, to the slums of Nairobi, passing over to the katchi abadis of Karachi, without mentioning the comunas of Medellin, there are many cases that give testimony to how in these sectors there is a concentration and proliferation of armed illegal groups, dedicated to illicit activities such as narcotics trafficking, kidnappings,

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2 Although the comunas (districts) are each of the 16 administrative subdivisions of Medellin, the word is sometimes used—and it is the case here—to refer to the poor neighborhoods of the surrounding slopes. (TN)
robberies, etcetera, all of which end up widening their radio of action to the entire city.

In this global context, Latin America has 30% of its population living in informal settlements. The rate of regional annual growth of this phenomenon is 1.2%, with a clear decreasing tendency in the last decades. If one thinks that between the 1960s and the 1970s, the percentage of informality in many countries of the region reached 60%, then the achievements in this sense are more than evident (ONU-Hábitat, 2005). Despite these figures, the challenges that remain to be resolved are many: the inequality index is among the highest on the planet and a significant proportion of the neighborhoods still present very high levels of abject poverty.

Under this regional panorama the Colombian case is exemplary in terms of how it typifies the problematic evidenced on the regional level. The country, with more than 75% of its population living in cities, has between 20 and 30% of its urban population living in precarious settlements (ONU-Hábitat, 2006). Colombia is, together with Brazil, the Latin American country with the highest index of urban inequality and insecurity (ONU-Hábitat, 2009). Despite this, it is also one of the countries that have been doing the best work in terms of countering the phenomenon of urban informality in the last decades, as shown by the growth index of informality in the country (ONU-Hábitat, 2003).

Medellín is among the Colombian cities that have confronted
most challenges in this regard. The objective of this article is to describe the characteristics and origins of this phenomenon at the local level and, afterwards, to concentrate on analyzing some successful examples of public policies implemented by the local administrations. This is done as a means of extrapolating from these experiences the principal achievements and mistakes, as well as highlighting the strengths and identifying the present and future challenges.

Marginality in Medellín

The process of “informalization”, understood as the formation of precarious neighborhoods, has been a characteristic of Medellín’s history throughout the entire past century as a consequence of the growing migrations towards the city, which took place continuously throughout the main part of the 20th century. These migrations originated in the final decades of the 19th century and came about due to the catalyzing effect of the industrialization process in the Aburrá Valley which had an irreversible and dynamic effect on its urban development, making Medellín the principle economic pole of the region (Coupé, 1996).

The effects of this demographic growth began to be perceived from the beginnings of last century, due to a considerable rise in the demand for housing. This rise in the demand was associated with the production of working-class residences, a consequence of the huge numbers of manual workers required by the emerging industrial sector (Poveda, 1996). In the 1920s, to cite as an example, approximately 500 new residences were needed each year, when the actual effective production only arrived at half that number (Botero, 1996).

In this way, from this moment on, new neighborhoods of both public and private initiative began appearing, for the most part, towards the north-eastern bank and along the entire tram route and principal roads. The public residences were the product of the conformation of institutions that were created ad hoc, such as the Institute for Territorial Credit,3 and the Central Mortgage Fund4 while the private residences were representations of the hefty effort of local landowners who saw in this process an opportunity to appropriate the urban surplus value (Toro, 1988). The land surplus value result of these different actions is represented by the conformation of neighborhoods such as Villa Hermosa, Manrique, Campo Valdez, Berlín and Aranjuez, to cite but a few.

Despite the huge “public-private” effort, the demand for housing continued to grow in the

3 In Spanish: Instituto de Crédito Territorial (TN)
4 In Spanish: Fondo Central Hipotecario (TN)
following decades. Due to a new migratory wave, the product of rural displacement caused by the political violence of the 1950s, the rate of the city’s annual growth climbed to 6% (Coupé, 1996). In ten years Medellin duplicated its population and informal settlements began to appear in the most inaccessible areas and in the most peripheral lands, under the figure of squatter settlements and illegal neighborhoods. From this period we find, to cite a few examples, the neighborhoods of Popular, Santo Domingo, Granizal, towards the eastern bank, and Doce de Octubre and Picacho, towards the western bank.

These neighborhoods, constituted by illegal processes of subdivision, the sale of land and the progressive self-construction of housing, and characterized by the absence, in the initial stage, of infrastructure and public services, represented, for the low income population, the only opportunity of building their homes. In this way, rapidly, the informal city, characterized by a diffuse growth outwards of the legally defined urban perimeter, came to occupy geographically complicated and fragile zones, and came to accommodate 50% of the total population (PRIMED, 1996).

The new urbanizing dynamic, increasing in intensity, began to generate a profound segregation of the city’s physical, social and...
economic order. Towards the North and towards the high parts of the eastern and western slopes, the informal city began to position itself; it is in these areas that one finds the unfinished residences of the city’s low income people. Parallel to these areas, the middle and upper classes occupy the center and South of the valley, on top of the planned surface of the formal city. Medellín defines its path in two realities, two opposing “cities”, dramatically segregated by their conditions of location and their geographical relief.

Thirty years later, with a new wave of violence, rural displacement, and the emergence of narcotics trafficking, the phenomenon began to take on a dramatic political and social dimension, never before experienced. The neighborhoods of the northern slopes of the valley, commonly termed “comunas”, were converted into the natural habitat of the illegal gangs, bands of assassins who acted according to the orders of narcotics’ traffickers and common delinquents. It is worth mentioning that State control and presence in these sectors was almost non-existent.

As a result of this process of informalization, Medellín today, in accordance with the classification of its land in the Land Use Plan,7 has 25% of its territory in neighborhoods with different levels of marginality, in a total of 2400 hectares. 900 of these hectares have

7 In Spanish: Plan de Ordenamiento Territorial (POT). (TN)
been defined as Areas of Integral Improvement, with settlements in precarious conditions and socio-spatial segregation. 1500 hectares have been defined as level 3 consolidations, with a critical deficit in infrastructure, public space and furnishings, but with a higher level of consolidation that facilitates their articulation with the formal city. The comunas located towards the northern, center-east and center-west zones, concentrate the socio-economic strata 1 and 2 (Alcaldía de Medellín, 2006), which correspond to those areas with the lowest quality of life and human development indexes (Alcaldía de Medellín, 2004) as well as coinciding with those sectors with the highest indexes of violence.

Ever since the 1990s, the public administrations, the academy and non-governmental organizations, have been studying and implementing programs aimed at transforming the quality of life of the habitants of marginal neighborhoods, and recompense part of this social debt accumulated during decades of inequality. It is evident that the drama of the informal city with its conditions of inequality, violence and segregation, was an integral part of its past. It still remains part of the present, but there is a bet for change and it is dependent on us whether it will be part of the future of Medellin.

**Neighborhood improvement**

Neighborhood improvement emerges as a response to the failure of all those coercive actions and measures of control which saw the eradication of urban informality as the only possible solution (Rojas, 2009). This focus was shown to be ineffective as it did not attack the roots of the problem, concentrating instead, on spending time and public resources on repressive actions which not only failed to resolve the growing housing deficit but also produced conflicts of public order with severe social impacts.

The policies of neighborhood improvement, on the contrary, imply the implementation of actions that channel resources to perfect the physical conditions of a settlement for its progressive incorporation into the formal urban fabric. This, depending on the context, implies the allocation of public resources, improving the state and the coverage of infrastructure (roads, parks, and transport systems), guaranteeing the allocation of collective types of furnishings, as well as looking at how to motivate actions that are channeled towards the improvement of housing and the provision of formal property titles.

These measures, by mitigating the structural deficiencies originating due to the absence of a conventional process of planning and urbanization of settlements

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* In Spanish: Áreas de Mejoramiento Integral (MI). (TN)
in their initial formative phases, look to make the “problem” part of the solution (Davis, 2006). By recognizing the right to the city of informal neighborhoods, their improvement becomes a valid complement to the production of social interest housing, thereby alleviating the pressure for new land.

On the other hand, by limiting the processes of habitat relocation and the eradication of neighborhoods, and fomenting community construction, there is a decrease in the risks associated with the detriment of social capital, a fundamental factor in the struggle to reduce poverty. Finally, as has been suggested by Hernando De Soto (2000), by promoting processes that legalize property there is a triggering of assets formalization that brings potential economic benefits to the proprietors and the city as a whole.

On the national level Medellín is, together with Bogotá, the city that has had most success in implementing programs of this type “due to the general impact in terms of the life quality of its population” (Departamento Nacional de Planeación, 2009). Among the case studies that are most emblematic on the local level are: the Program for the Integral Improvement of Subnormal Neighborhoods (PRIMED) which was implemented in the 1990s, and as of 2004, the policy of Social Urbanism with actions such as the Integral Urban Projects (PUI) and the Project of Habitat Building and Consolidation of Housing in the Juan Bobo Creek.

**PRIMED**

PRIMED began in 1993 as a pilot program of cooperation between the city of Medellín, the governments of Colombia and Germany (via the Ministry for Economic Cooperation and Development BMZ and the Governmental Bank for Reconstruction and Development KFW) and the United Nations Development Program (UNDP). It was conceived as a strategy for neighborhood improvement designed in two temporary stages and led by a local agency which was put together ad hoc (Betancur, 2007). The program lasted seven years, finishing in 2000 due to an incorrect political decision, which was a clear example of the lack of continuity of public policies. **PRIMED** represented a historic hit in the city as it introduced a new methodology of intervention that

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9 In Spanish: Programa Integral de Mejoramiento de Barrios Subnormales (TN)
10 In Spanish: Proyectos Urbanos Integradores (TN)
11 In Spanish: Proyecto de Construcción de Hábitat y Consolidación de Vivienda (TN)
12 Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development) (TN)
13 Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute) (TN)
differed radically from previous experiences. Due to the integrity of the actions’ implemented, the program identified eight polygons of intervention, located in the high sections of the center-east, north and center-west comunas. The specific objectives of the program were subdivided into three large character areas: physical, social and management. These included processes of community participation, the improvement of basic infrastructure, the improvement of housing and the relocation of high-risk zones, the legalization of land tenure and the mitigation of geological risk (PRIMED, 1996).

One of the principle achievements of the program was the high level of efficiency in the implementation of the respective actions. If one thinks that PRIMED worked simultaneously on different areas of intervention, with a combination of actions that covered each aspect of neighborhood improvement, and that these implied the interaction of multiple actors, it becomes evident that the inter-institutional coordination represented a determining factor in the success. An independent management structure was set up as the PRIMED unit, ascribed to CORVIDE and with total dedication to the program. PRIMED had the role of coordinating all the actors, channeling the resources, and articulating the physical actions carried out on the territory (Montoya, 2010).

The international entities (UNDP and KFW) provided technical consultation and resources. The national organs (Treasury Ministry, INURBE, SENA channeled the resources of cooperation, provided subsidies, and financed community training in the improvement of housing. On the local level, the municipal instances (Public Works, Treasury, Metropolitan Planning, EPM, etc.), provided financial, technical and human resources within the areas of their competence. Finally, the non-governmental organizations (NGOs), Base Communities, and private contractors all participated in the physical execution of the works (PRIMED, 1992).

As well as the inter-institutional management, the program placed particular attention on the rela-
tionship with the community (PRIMED, 1996), involving it in distinct ways, from the stage of identifying necessities and prioritizing problems, up until the phase of building the actual works. What more, there was a search to build local-level capacity, via training in self-construction, in environmental education, in leader formation and in the formulation of project management, all with the objective of fomenting social development.

Obviously, there were limitations and difficulties. In territorial terms, little attention was placed on the structuration of the territory. Even if there was an improvement in the quality of some spaces, ordering them correctly was not achieved. On the other hand, the standard of interventions was low, which had consequences in terms of their durability (Montoya, 2010). There was a scarce number of projects of a social character that were channeled towards improvements in conditions of poverty, violence and unemployment, which was also the case for projects offering attention to juveniles and old people. There were difficulties in the legalization processes; of all the program’s components, this was perhaps the most complex one, which was also due to the high goals that had been proposed (Betancur, 2007).

Finally, from a political-institutional perspective, the program displayed its weakness by not being inserted in an institutional manner within the city’s territorial plans. It was always considered a special program, separate to the other programs and projects of the Mayor’s Office. This ensured that upon the change in administration, when the political will to guarantee the program’s continuity disappeared, the program was ended (2007).

To conclude, PRIMED managed to lay down the bases for a new form of tackling marginality, for its methodological design, the capacity for achieving management and institutional coordination, and a strong political commitment during the seven years of its duration. What more, it was a very important reference point for the Social Urbanism strategy.

Social Urbanism

Under the leadership of the mayor, Sergio Fajardo, the city, in 2004, decided to bet on a public policy that was focused on reducing the profound social debts that had accumulated during decades, as well as the problems of violence. In this way, in a decisive manner, structural transformations that combined, integrally, programs of education, culture and entrepreneurship were implemented, together with a “face-lift” of some neighborhoods located in the most critical zones of the city. The strategy was de-

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22 A major part of the information contained in this section of the article stems from the direct experiences that the authors acquired as part of the team charged with leading the planning and development of those projects here outlined.
fined by the concept “Medellín the most educated”, which for the transformation of the comunas involved Social Urbanism, together with Integral Urban Projects, as one of the strategies of change. For this, in the selected territories, the best technical knowledge and designs were applied (Rodríguez, 2010).

The Strategic Urban Projects that were defined as priorities in the Municipality’s Development Plan were located within Medellín’s Empresa de Desarrollo Urbano (EDU), a decentralized entity that makes up part of Medellín’s municipal structure, founded in 1993. Among these projects, the entities created the Library-Parks,24 the Schools of Quality,25 the City Center Plan,26 the Poblado’s Plan,27 the Projects for “a New North”,28 and the Integral Urban Projects, as well as others. The EDU suffered an internal transformation, as a specialized and interdisciplinary team with exclusive dedication to each one of the Strategic Urban Projects was set up. As such, it was converted into a key instrument that planned and executed the urban projects in the prioritized territories.

As the EDU assumed for a period of years, as an interim task, the sole technical leadership in this exclusive group of projects and territories, some of the keys to success, without doubt, were the political leadership and inter-

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23 Urban Development Enterprise (TN)
24 In Spanish: Parques Biblioteca (TN)
25 In Spanish: Colegios de Calidad (TN)
26 In Spanish: Plan del Centro (TN)
27 In Spanish: Plan del Poblado (TN)
28 In Spanish: Proyectos del Nuevo Norte (TN)
institutional coordination. The teamwork conducted with the city’s Direction of Planning, and the detailed and rigorous monitoring that was done for all the internal processes of administration and execution by the Private Secretary, allowed, in only a few years, for the conclusion of a wide group of high complex projects.

An Integral Urban Project is an instrument of planning and physical intervention in zones which are characterized by high indices of marginality, segregation, poverty and crime (EDU, s.f.). In agreement with these criteria, Medellín’s north-eastern comuna was chosen as the ideal scenario for the implementation of the first pilot program. Firstly, this zone was the city sector with the lowest levels of LQI and HDI (Alcaldía de Medellín, 2004). Secondly, at that moment and in the same area, the inauguration of the mid-level capacity, transport system – the Metrocable – was fast approaching, which would connect by way of ski-lift the informal city to the Metro.

The implementation of the cable transport system and its new stations was the essential base in the definition of the territorial strategy. The Integral Urban Project helped in selecting and making dynamic the location of the stations, with the objective of complementing and amplifying the impact generated by the Metrocable. A process of neighborhood consolidation was implemented, which permitted the structuring and ordering of the territory (not only improving its accessibility) via works and projects of a public character such as community furnishings, parks, streets, paths and pedestrian bridges to connect the neighborhoods, among others. The north-eastern Integral Urban Project focused on the provision and improvement of public infrastructure as the motor for social transformation, giving special attention to those areas that were densely populated that had first formed in the 1950s, mainly via illegal processes of urbanization (La Francia, Andalucia, La Cruz), and those formed via invasion processes (Popular, Santo Domingo 1, Santo Domingo 2, and Granizal) (Naranjo, 1992).

The magnitude and the complexity of the polygon of intervention, with a population of more than 150,000 habitants concentrated in more than 10 neighborhoods, all of which displayed complex topographical and morphological conditions, required a detailed analysis of the territory. In 2004, the desktop reconstruction of the process of evolution of the urban form of the neighborhoods was done, as was a typological analysis of their structural elements, supported by the methodology of Barcelona’s Urban Laboratory (LUB). What more, there was a systematization of

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29 LQI stands for Life-Quality Index and HDI stands for Human Development Index. (TN)
30 In Spanish: Laboratorio de Urbanismo de Barcelona. (TN)
the different studies and proposals that had been done on the city, and technical teams were set up, originating in certain universities that had developed applied research that explored solutions to some of the problems in these territories. All this allowed for the categorization, in a short period, of what initially had seemed to be a chaotic urban grid, identifying problems and opportunities with precision.

As a result of this process, a plan of action was elaborated, looking for an integral physical transformation and combining actions at different scales. The urban project, its architectural design, and technical rigor, were the key instruments with which to begin the process of neighborhood recuperation and work with the community.

The urban project became the dynamic force in processes of inclusion and social development as alternatives to the violence and indifference that had ruled the roost for decades in the sector. In this way, bridges over creeks, for example, as well as simple connecting pathways, became means of integrating communities which had been, up until
that point in time, divided by imaginary and impassable boundary lines; or the Santo Domingo library, due to its strategic location and its educational programs, became the community’s principal reference point as well as a promoter of coming closer to knowledge and education as alternatives to arms.

From the phase of diagnoses and planning, up until the phase of execution, the community was invited to actively participate in the process, accompanying the technical teams, the social workers and the communicators in the realization of their tasks. Due to the breadth of the territory, neighborhood committees were set up, grouped in the areas of influence of each Metrocable station: Andalucia, Popular and Santo Domingo. These were not necessarily linked to the Boards of Community Action (JAC)\textsuperscript{31} to ensure the prevention of possible political influences and broaden the level of participation. The result

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image15}
\caption{El Mirador Park and Street 106 urban passageway, connecting Santo Domingo Savio Metrocable Station with España Library. Source: EDU}
\end{figure}

\textsuperscript{31} In Spanish: Juntas de Acción Comunal. (TN)
was, for example, the conformation of Imagery Workshops in which the community directly participated in the definition and design of the projects. The workshops were notorious for fomenting leadership, elevating the spirit of belonging and the level of compromise of the community towards the neighborhood.

As well as the participation processes, numerous projects and programs of a social order were developed and coordinated in the area, via the Integral Urban Project team, and under the management of the Mayor’s Office and the public and civil sectors. These projects reached 650,000 million Colombian pesos, equivalent to 80% of the total investment undertaken in the sector (Pérez, 2010). Among other things, there was an improvement in the coverage of primary and secondary educational services, projects that were channeled towards protecting the vulnerable population were promoted, programs of recreation, culture and sport were promoted for the youngest population groups, as well as other specific programs aimed at citizenship formation with regards to the use of public space, respecting human rights, etc.

In order to coordinate and lead a strategic project of such complexity, a special management group was set up, comprising an interdisciplinary team with exclusive dedication for this territory, supported within the EDU organizational structure. The manager had periodical work committees with the mayor and his direct support team, and he became an integral part of the weekly meetings of the Government Council, which in Medellín is a first-level team of the city’s secretaries and functionaries.

The north-eastern Integral Urban Project was almost totally financed by Medellín’s public administration. The resources, derived from the annual budget of different secretaries involved in the project, reached 144,000 million pesos in investment in physical transformation during the first four years. This investment allowed the execution of a total of 125,000 m² of works that included 18 public parks of different hierarchies (zones and neighborhoods), the adaptation of streets for pedestrian and vehicular use, and the construction of numerous public edifices such as the España –Library-Park, the Santo Domingo School, the Granizal Sports Center and the Center for Entrepreneurial Development Zone (CEDEZCO). For the execution of these works, local laborers were contracted, coming to a total of more than 2300 people employed during the project’s four-year duration (2010).

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32 In Spanish: Talleres de Imaginarios (TN)
33 In Spanish: Consejo de Gobierno (TN)
34 In Spanish: Centro de Desarrollo Empresarial Zonal (TN)
Figure 1.6
España Library in Santo Domingo Savio neighborhood
Source: Andrea González

Figure 1.7
De la Paz y la Cultura Bridge, between La Francia and Andalucía neighborhoods
Source: EDU
The construction and improvement of the habitat in these territories that had low levels of consolidation was an integral part of the policy of Social Urbanism. As a complement to the north-eastern Integral Urban Project that focused construction of new spaces of encounter and public buildings, the Pilot Project for Habitat Consolidation in the Juan Bobo Creek was identified as the first model of housing intervention in “invaded urban ecosystems”.

This term is understood as all those natural systems, such as hills and creeks that have been occupied by way of invasion by highly precarious settlements. These ecosystems present a high concentration of high-risk housing, low levels of consolidation, low coverage of services, infrastructure and public space, illegality of tenure and high levels of poverty, as well as a worrying state of environmental degradation, among other problems.

Generally, these territories have been identified by the Land Use Plan as relocation areas. Nevertheless, the magnitude of the phenomenon makes such a policy quite unviable: on one hand, it is unthinkable to relocate all the natural systems that have been invaded; on the other hand, the scarcity of land fit for urbanization, as well as the high value of the market, evidence the impossibility of meeting the demand for new housing that would be generated by the mass relocation of these areas. Under such premises, with the objective of making viable a more sustainable model of performance from a social and physical-environmental perspective, and with the technical knowledge that some of these zones could be consolidated in adequate conditions without risk, the first pilot project for housing and the improvement of the surroundings of the Juan Bobo Creek came into being.

Due to the fact that the habitat was a substantial component of this project, an exclusive technical team was set up in the Housing Management wing of the EDU. This team had been an integral part of the formulation of the first lineament of the north-eastern Integral Urban Project. An intervention plan was elaborated which comprised different types of complementary actions, among which the search for the total intervention of the territory of the creek’s polygon was fundamental.

More than ten small recipient edifices were built for relocated families, the well-located and with acceptable levels of consolidation residencies were improved, and some residences were replaced on site, which allowed for the conformation of a more regular plot. Parallel to these initiatives, retaining walls were built to mitigate the risk of landslides and the territory was equipped with public service networks, which implied the need to sanitize the creek. As well as this, pathways, bridges
and public spaces were built as a way of dignifying the surrounding area and improving its precarious accessibility, and protective zones were set up for the preservation of the existing vegetative layer.

Bringing the project close to the community in an intervention with such a strong housing component, with more than 300 households affected, was a determining factor. To enable this, among other measures, area committees were set up to facilitate the channels of communication and strengthen the leadership of the community members; pacts and agreements between the State and the community were outlined to build reciprocal trust and credibility, and in the phase of execution of the project, families were involved via practices of self-construction.

The final result was the integral recuperation of the creek and the dignification of a much deteriorated sector, located in the area of intervention of the northeastern Integral Urban Project of the Comuna 2, until this time considered more a grovel than a true neighborhood. The project had an approximate cost of 8000 million pesos, and despite the constrictive nature of the intervention, it was successful in permitting the definition of a model to recover invaded urban ecosystems which was highly necessary for the present conditions of the city, and so that the only alternative would not be eradication, a practice that could be replaced in many cases by the recognition of the right to stay put.

Notwithstanding the success of the project, which was worthy of recognition even by the international community, in the development phase a series of difficulties that are worth mentioning were identified. In particular, just as occurred with PRIMED, the legalization process of housing turned out to be very complicated as was, in general, the whole juridical component that was associated with the regulation of land use, due in part to the administrative impediments on the national level.

Another aspect to take into account is the small availability of the community to participate in the self-construction of its residences. In many cases the families, notwithstanding their disposable time, opted to contract a head builder who would undertake the task. This is contrary to the principles of self-construction which look for the active collaboration of the community as a way of forming them in the trade of building (which

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35 This is the sum, according to the EDU sources. This included the construction of more than 6000 m² of public space and a 1000ml of networks, the building of more than 100 new residences and the improvement of more than 100 existing residences, the stabilization of soils, and more generally, all the costs associated with the formulation, planning and management of the project.

36 In 2008 the Project was among the winners of the Dubai International Award for Best Practices.
in Medellín represents one of the motors of the economy) and empowering them, limiting the excessive paternalism on behalf of the State.

By way of conclusion, it is important to highlight how this project offers an appropriate manner of insertion into the broader strategy of territorial consolidation, implemented by the Integral Urban Project by way of articulating actions of consolidation and territorial ordering in phases of advanced densification, something that well describes the majority of the neighborhoods of the northeastern comuna, with other actions geared towards correcting incipient development in fragile areas with characteristics similar to the Juan Bobo Creek (where housing and the environment are the priority). The strategy developed in the creek represented an easily adaptable tool for the distinct situations present in the Aburrá Valley. These projects have served as models for change in the definition of local and national policies concerning settlement upgrading.

The policy of Social Urbanism, implemented from 2004, looks to take a qualitative leap from the traditional manner in which improvement is understood. It makes use of tools such as the Integral Urban Project that has the goal of making structural transformations in an integral way in the...
strategic activities sectors of the poorly consolidated neighborhoods, and the projects of housing construction in these fragile natural systems as a means of achieving the definitive integration of marginal communities.

**Lessons learned and future challenges**

As we have seen, in recent decades, the Latin American city has experienced a strong decrease in the rate of growth of informal-type settlements. This is due to the fact that the urban population of the region has reached more than 80% of the total population, with a consequential reduction in the migratory processes towards the city.

Despite this, more than 30% of Medellín's urban territory today presents some type of precariousness in terms of its physical and social character. Parallel to this, the production of social housing continues without being able to meet the existing demand, with repercussions in the rate of informality. For these reasons, since the 1990s, policies and programs centered on housing improvement have been implemented which, due to their generated impact, are today important national references.

Programs such as PRIMED and projects such as Integral Urban Project and Juan Bobo, display some
of the common patterns which we could, initially, catalogue as being among the possible conditions for success, although the necessity of a more exhaustive analysis is more than evident as a means of tracing more resounding conclusions in this sense. These factors belong to the technical, institutional, the public and the social spheres.

In the first place, the cases analyzed coincide in that they opt for interventions which are territorially delimited, wherein the integral nature of the physical actions represent a constant. By articulating housing programs with interventions on public space and infrastructure in a particular sector, one looks to increase the impact generated on the territory, augmenting the levels of coordination and inter-institutional collaboration among all the actors. This allows for an increased degree of rationalization in terms of the use of public resources.

On the other side, the diversity of the adopted strategies has been shown to be a highlight. By articulating programs of consolidation such as the Integral Urban Project with others that are focused on actions geared towards improvement, such as Juan Bobo, complementary practices have been developed, which demonstrate the way in which this initiative could be replicated. Each real situation is typified and is given a specific treatment according to its necessities. To this is added the significant attention given during the designing and planning phase, defining actions in line with the model of occupation the city requires and with quality standards of intervention.

Another common aspect is in the definition and implementation of management mechanisms which are set up ad hoc. Each one of the cases described here presented an organizational structure that was made up of multidisciplinary teams dedicated exclusively to the execution of the respective project, with evident advantages in terms of efficiency. Also, the support and political will turned out to be fundamental, as a guarantee of the continuity of any public policy of the programs of a public character, a condition without which a widespread impact could never be achieved.

In an analogous manner, the processes of community participation have proven to be more important each time. Such processes look to augment the level of commitment and empowerment of the community, motivating the creation of a more democratic and governable society in which a broad consensus becomes the basis to success. Despite this, in the cases analyzed, the implemented mechanisms still place limits on the capacity of the community for making decisions, evidencing the necessity of providing more incentives each time for the putting into practice of a planning process that is of a bottom-up nature, as also suggested by the international community.
Parallel to these characteristics, it is important to evidence certain aspects that, if they improve, would help to strengthen the degree of sustainability of these projects. In this respect, we shall demonstrate how policies of improvement guarantee, principally, the environmental and social sustainability, limiting the production of new urban land in line with Medellín's dense occupation and allowing for the preservation of social capital with the right to stay put.

In this context and due to the high cost of the interventions and the magnitude of the phenomenon, the implementation of mechanisms of financing that allow for the reduction in the use of local public resources is recommended. A possible solution is the utilization of mechanisms that capture the surplus value of the highest-income sectors, to transfer these resources to informal sectors, something that occurs in Brazil which, in difference to Colombia, utilizes the tools which its legislation contemplates with regard to land use policies (Sandroni, 2001).

It is also necessary to articulate even more the physical actions with socio-economic, cultural and educational development programs that transcend the temporality of the interventions and lead to the building of local-level capacity and permit the sustainability of the communities. This will help the communities improve their economic conditions via the generation of employment, providing access to better education and improving their health and hygienic conditions, among others. All of these factors are fundamental in mitigating urban poverty and combating the germ of violence that still permeates these sectors.

In terms of the replicability of the identified models of intervention, it is important to pay attention not to bypass already developed methodologies. This means, in particular, to avoid modifying those criteria that have guaranteed their success. While it may be necessary to standardize processes; it is important to identify and preserve above all else those elements that constitute the value-added of each model.

In the case of the Integral Urban Project, for example, it is worrying to note the relative ease with which such an integral model is being transformed, in some cases, into a simple construction of infrastructure, in which the planning and sequence of the interventions pass to a second level. Simultaneously, a risk exists in widening the scale of the perimeter of action, as it is fundamental that the integrity and the articulation of the projects in a contoured territory are guaranteed. It is recommended that in the case of projects like Juan Bobo one not waste such an intricate and meticulous movement that allowed for the integration of the new on top of the existent almost without leaving a mark: we are worried about the spatiality of some of the new interventions.
which alter the concept of the urban acupuncture which was so celebrated in its moment.

Because of this, and considering that the institutional memory cannot remain in the hands of but a few individuals (institutions remain, functionaries change), it is timely to begin proposing processes of systematization, monitoring and evaluation of interventions. This allows for the fine tuning and consolidation of the experiences here described, to identify both good and bad choices, progressively making these projects the basis to an urban policy of improvement and consolidation of marginal neighborhoods.

To conclude, it is clear that, notwithstanding all that has been done, there still remains much ground to cover. Medellin’s comunas are far from being the ideal habitats that their habitants desire and deserve: inequality, the lack of opportunities, the degradation of the physical and natural environmental, just as the insecurity and violence, continue to be the common denominators that characterize them. The projects described here should be considered as the important first seed in the process of physical and social integration between the informal city and the conventional one; a process that represents one of the principle challenges facing Medellin and the other cities of Colombia in the search for a more equitable society.
References


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