

ORIGINAL RESEARCH ARTICLE

Medellin: City of crossroads—Poverty, urban model and social change of the green belt project

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ABSTRACT

Over the years, Medellin has faced a series of problems that hinder its clear vision for the future, which will make it more than drug trafficking and prostitution in the world. However, Medellin and many of its residents are currently acting to obtain better material conditions and facilitate the lives of their residents, who continue to suffer from appalling poverty, marginalization and violence due to the vulnerability of the state in vast territorial areas. Despite this difficult cultural landscape, the city has made far-reaching efforts, albeit limited, to improve Medellin's observed prospects, so today it is considered an example of urban and social transformation in Latin America. In this way, large-scale projects such as green space and garden around the city have begun to overcome the extreme violence and decentralization of the state in recent years, which has enabled cities to expand to areas where human life and the environment are at high risk.

Keywords: urban planning; urban model; large-scale projects; medellin green space; urban transformation; public police

1. Introduction

The overwhelming expansion that Medellin experienced in the last century was part of a global phenomenon that occurred throughout the 20th century, in which cities attracted many people with excessive urban space. This situation inevitably leads to a series of uncertainties caused by the population explosion, which are mainly reflected in population growth and the development of non renewable natural resources, the pollution of water and land resources, the extinction of biodiversity, food dependence, poverty circle, deforestation, and the urbanization of hillsides that are not suitable for construction in the case of Medellin. As a result, this uncontrolled urbanization has caused serious accidents in the city, such as the land collapse in

Andalucia in 2015, resulting in the displacement of 100 people, and the death of 500 people and thousands of people in Tina villa in 1987. This dynamic puts some 2,393,011 people living in high-risk areas at risk. The following is the report of the Empresa de Desarrollo Urbano (EDU) responsible for Medellin urban renewal (**Figure 1**).

This is very important because the excessive growth of the city has led to the need for extensive projects to meet the requirements of the city and the desire of the authorities to give Medellin a position in Mundo, which is the result of Medellin's recognition as an innovative, competitive and market-oriented city. To this end, all efforts have focused on strengthening their infrastructure and upgrading their urban planning, with positive and positive results for the

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populations affected by these measures. All this is taking place in the context of a problem characterized by an urban population explosion that exceeds the rest of the region, driven by a variety of factors such as the economy and violence in rural and urban Colombia. It is therefore necessary to take action to mitigate the sudden invasion of housing construction in rural and Abra

valley areas, coordinate the interests of these areas with the development vision of metropolitan areas, protect environmental resources, produce planned urbanization, clearly regulate land use, and ensure isolation between rural, semi rural and urban areas, In order to promote food security, protect the integrity of forests and protect the rural lifestyle that still exists in some areas.

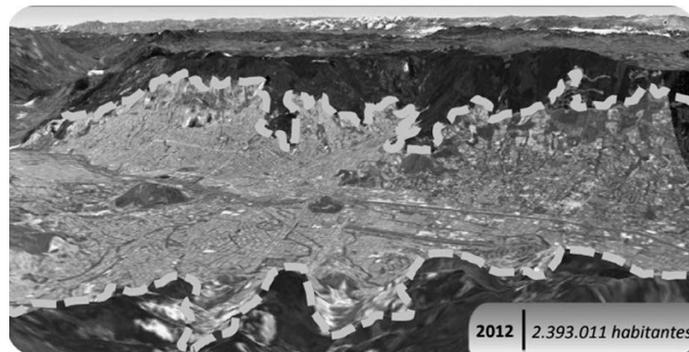


Figure 1. High risk area of urbanization.

Source: EDU^[1(p140)].

However, these uncertainties are not contemporary, as they can be traced back to industrial cities in the 19th century, where people began to provide labor for factories by integrating small residential areas that did not have greater planning in growth^[2]. To this end, many efforts have been made to implement land-use differentiation in Medellín and coordinate rural borders and high-risk areas with urban expansion, to ensure the urban demand for resources and services required by the rural environment for water, energy and food supply. Over the past few decades, these spaces have been important instruments in the process of urbanization because they can mediate as factors of balance, environmental sustainability and places of leisure and entertainment.

However, due to the proliferation of informal economic growth, under the conditions of high marginalization and economic, social, political and ecological fragility, many sectors on the edge of cities are integrated into land shortage and high land cost activities, and many resource poor people are forced to live on land with high landslide or flood risk. Due to the state's inability to plan and control urbanization, people tend to occupy steep,

unstable slopes or flood areas close to canyons.

In general, these habitats lack one or more basic infrastructure, such as electricity, sanitation, equipment, transportation, etc., which reduces the living conditions of residents and provides shelter for armed groups. Therefore, for many years, institutional institutions have been trying to change the negative image of peripheral areas, which have so far been masked by a series of urban diseases and devalued due to the reduction of the material level of their structures and services, the weak implementation of social policies and the marginalization, exclusion and isolation of residents, who now want to participate in the process of urban and social transformation^[2].

Not surprisingly, the provinces of caldia and Antioquia in Medellín have promoted the implementation of large-scale projects aimed at changing these realities, which are often exacerbated only by the large-scale migration suffered by Medellín in recent years. It is in this regard that the two most criticized urban projects, such as the green belt and the garden around the city, have been criticized for the multiple resistance shown by the directly affected population,

especially the degree of inter city displacement it may cause. However, these projects are a response to the expansion of urbanization, and finally go beyond the boundaries of traditional cities and enter the space that should be reserved for nature conservation. This problem is particularly prominent in Medellin metropolitan area, because it is in a narrow valley, forcing many people to build slopes and riverbed on unsuitable soil. This is a dangerous process, which quickly depletes the central urban space of the valley, increases the

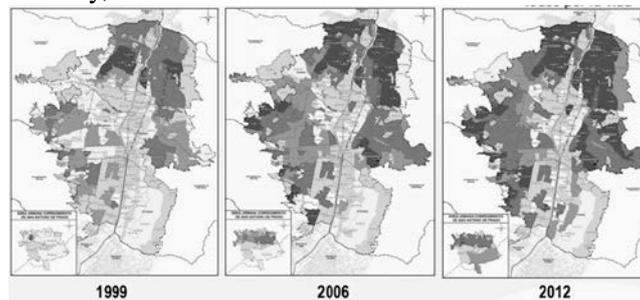


Figure 2. Population density growth from 1999 to 2012.

Source: Alcaldía de Medellín^[4](p13)].

Therefore, according to the authorities, the metropolitan green belt is “a strategy for planning and implementing plans, programmes and projects aimed at changing the areas where urban areas form and begin to form rural areas, that is, the urban fringe that constitutes the Abra Valley”^[5]. To sum up, given the rapidly growing complexity of Medellin and its constant trend in the first few years of the implementation of projects such as the “Metropolitan Green Belt”, the project aims to change the environmental, social, economic and political realities that are crucial to the city. It is expected that the plots that combine the belt with the direct management actions of the owner will be identified. The project limits and opportunities for rural, urbanized and suburban land. After this phase, management strategies will be implemented, including land purchase, construction of marginal parks, ecological restoration, protective reforestation, land management contracts, land use change agreements, urban signs, social and community ownership. Among other measures, it aims to consolidate the state’s presence in these key sectors in order to properly manage the population surge^[3]. Thus, the intervention model is based on

possibility of landslide, destroys regional biodiversity, and forces the formulation of legislation to protect the marginal and rural environment. Disapprove of entertainment venues and landscapes, as well as other phenomena that seriously affect the quality of urban and rural life^[3]. Especially between 1999 and 2012 (**Figure 2**), Medellin’s population density increased, indicating that excessive and unplanned population growth occurred in a very short period.

the the intervention model follows the schematic parameters of **Figure 3**.

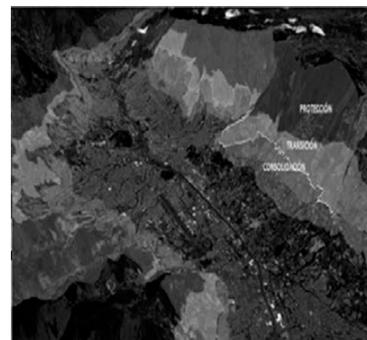


Figure 3. Intervention mode of urban green belt project.

In addition, given the scale of the project, various organizations, social movements, urban collectives and communities have put forward various suggestions. Through collective action, supervision and complaints, these organizations, social movements, urban collectives and communities try to give priority to the formulation of policies and live a dignified life for the people. In addition to these concerns, there are doubts that the implementation of light mobile systems (trams) may significantly increase the cost of land and encourage the reuse of hillsides, leading to counterproductive changes in the order of

Medellin^[6]. This may run counter to the objectives of efforts aimed at preventing urban expansion to hillsides, protecting natural space, creating sustainable development in peripheral areas, reforesting and consolidating environmental parks, resettling settled communities in high-risk sectors and increasing mobility in vulnerable sectors. Therefore, it is not surprising that many social organizations argue that the goals are not clear to the people, because, in the words of Cesar mendo ZA, a sociologist at the sumapas foundation, there is little citizen participation.

The problem is that development, or rather, developmentalism, has never been consulted. When people find that the project is in progress, developing and consolidating, people are in the last position. Look at the word they use: socialization. Social networking is: I tell you what I want to do, but I have no choice but to discuss^[6].

In addition, Francoise coupe, chairman of the planning committee, said that in such a large-scale project, there must be a very fine chart to illustrate the consequences of resettling the population at an average level, rather than providing decent housing, but enabling people accustomed to informal life to embark on a formal path in different situations, such as breza and forced displacement. They may not be ready for the challenge of a realigned settlement, where their informal work will continue.

On the other hand, Nataly Montoya, the professor of urban regional studies at eafit and Magister universities, said that it had been difficult for the competent authorities to carry out urban control in the most remote areas of Medellin. There, inspectors lack the tools and protocols designed for sin city, and when they arrive in the community, they face completely different construction logic and power relations^[7]. In this regard, Marta González define, Deputy Minister for urban control, said that the incompetence of inspectors was an extension of out of control in national and regional territories, trapped in serious dynamics of violence, unemployment, informality and lack of governance.

In order to improve this situation, what needs to be done is to strengthen the whole city, that is, all its units, in order to take clear action and invite citizens of the metropolitan area to join the process^[7].

Therefore, the indiscriminate expansion of cities and the deterioration of safety and quality of life will not be curbed until the borders, slopes and centers of Medellin are effectively controlled by criminal groups, which enjoy territorial control and replace the state in some functions. This is because one of the most competitive businesses for these groups is the sale of real estate or land in communities developed without proper planning in high-risk areas.

Therefore, it must be clarified that past experience has shown that the only way to prevent urban growth into mountainous areas is the existence of the state, which must work to regain control and implement it permanently, rather than through small-scale conflicts of interest^[8]. Therefore, it is essential to complete the security infrastructure, such as the security infrastructure composed of peripheral CAI and surveillance channels, make the organizational structure effective, monitor the functions of inspectors, provide educational, cultural and sports facilities to the community, improve mobility, change the negative image of the country and legalize the territorial control of armed groups. In the face of all these challenges, bypassing gardens and green belts does not guarantee solutions, let alone if their actions are simply to create roads and facilities without assuming real territorial control of the state. However, these projects demonstrate the interest of municipalities in urban and rural fringe and surrounding areas, which will eventually completely lose control without appropriate intervention, because according to the testimony of some residents.

The land has maintained the trend of invasion, which has now exceeded the sidewalks on the edge of urban and rural areas. Therefore, this

can be seen in a new community, which is currently under construction in an area called Altos de la Torre, which is currently developed by illegal armed groups and has not been intervened by the state^[7(p18)].

2. Medellin green belt

Green belt is a large-scale project promoted by the municipal government. Its premise is to show Medellin to the world as an innovation and

tourism city, eager for development and full of business opportunities. This public project is part of a series of buildings that have repeatedly attracted the attention of the international community in the transformation experienced by one of the world's once most dangerous cities. However, the greatest criticism of these initiatives is that they constitute an exclusive model that violates certain vulnerable groups facing continued evictions.



Figure 4. Percentage of recoverable and unrecoverable risk areas.

Source: Velasquez^[9(p26)].

However, according to the education company responsible for the metropolitan green belt project, its action depends on the regional planning model designed by the city, which focuses on mobility, housing, equipment, services and public space. These spatial planning concepts have led to urban projects aimed at intervening in areas of human development and low quality of life through library parks, quality schools, partial planning, urban renewal, Medellin ring garden, Medellin River Park and United Living Units^[5]. Each project addresses certain issues that are integrated into other social, institutional and economic dimensions in order to achieve synergy in favour of the most excluded sectors of society. All this move from “public sector intervention” to “comprehensive urban change”^[5(p66)] because many high-risk areas are characterized by the inability to restore urban space (**Figure 4**), so a broad process needs to be developed, including actions other than relocation.

As a project, the metropolitan green belt has become a long-term comprehensive planning and intervention strategy in the 2012–2015 development plan. Its goal is to control the expansion of the city and provide a balanced and equitable space at the intersection of urban and rural areas through environmental protection areas, public space transition areas and relevant facilities in each region. In addition, according to the 2012–2015 development plan, Medellin is a living home, known as the garden, to bypass the specific transformation of Medellin around urban-rural connection points and become a plan connected with the metropolitan green belt to protect and protect the ecosystem goods and services of all towns in the Abra valley, From the low end of the suburbs to the top of the mountain.

Some of the problems that green Turin CIN seeks to solve are excessive land occupation, high inequality, low governance capacity and the loss of ecosystem goods and services. All these difficulties

continue to deteriorate, and there are only isolated intervention solutions in recent decades. However, in the Munich Parr region of Medellin, the green belt includes 13 sectors: “Santo Domingo, La Cruz, Ilanaditas, pan de sugar, Middle East, El Pueblo, tres Cruces, canteras, Comuna 13, iguana, pagarito and picacho, vereda El cord ó N and vereda El Morro”^[3], distributed in 10 of the 16 comu NAS, as well as the communities of St. Helena, St. Cristobal, Altavista and San Antonio de Prado, with 79 communities and 25 sidewalks, covering a total area of 13,143.91 hectares, accounting for 34.5% of the total area of Medellin city.

It is clear that there is a desire to overcome the traditional inability of the state to comprehensively address the informal occupation of hillsides, mainly because most of the people settled in these places have been replaced by armed forces, which are not properly cared for in various circumstances, thus starting a cycle in which they connect their new lives with areas equally ravaged by violence and poverty. Therefore, if me GA projects wants to prevent these people from coming and resettle thousands of people, it must carry out large-scale planning and cooperation to prevent them from becoming another focus of violence in the city. All this is valuable because the green belt and garden ring line will cover 103 populations and 1,200

families, thus affecting the dynamics of the community and preventing serious rural activities in the city.

According to Margaret Angel Bernal, general manager of EDU company, relevant research was conducted in 2015 to ensure that:

These works and actions with the orderly and sustainable development of the city. At the same time, communities are preparing to participate in the construction and transformation of the territory and carry out ecological and health recovery, risk mitigation and food security activities through orchards. In addition, the project also provides the community with public facilities construction, connection system and community improvement program, which is called sustainable community^[10(p69)].

As a whole, the whole project of CIN turón Verde includes 42 hectares of ecological restoration, 12 kilometers of life road and 9 champion roads, 12 ecological parks, 1 education classroom and 2 environmental classrooms, 2 safety facilities, 590 families planting agricultural ecological orchards, etc., all of which follow the specific conditions of each operation area, as shown in **Figure 5**.

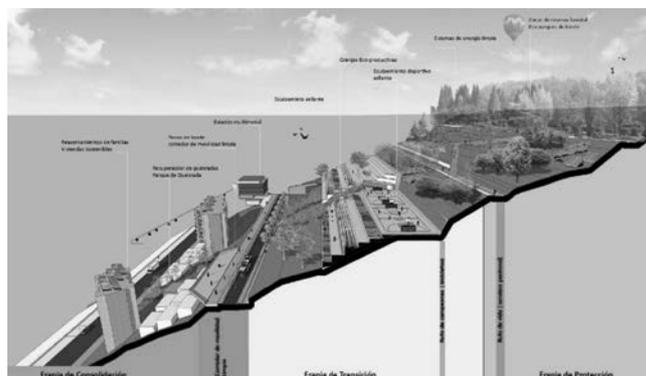


Figure 5. Medellin green belt performance stripe.

Source: EDU^[1(p143)].

However, according to the work done by the Las tinajas pilot park, which opened in 2014, the land recovered from the project through ecological parks, urban walks and housing channels will be used to build inclusive public spaces at least ideally.

The park has so far been uninhabited due to violence and terror and has been designated as a place of mourning for all the dead there. About the environmental impact sought, Siem Reap Bula with about 700,000 trees on the pan de sugar

mountain is included as part of the ecological restoration of tutelares mountain in Medellin city. Similarly, Agro ecological orchards are considered to create jobs and protect the restoration of heritage through archaeological exploration, which reveals the wealth of former Spaniards, including Quran ceramics, roads and terraces. Therefore, education companies seek the sustainability of projects by allowing workers to live in the same territory.

They believe that this process aims to cultivate “People formed through the concept of educational urbanization, which aims to cultivate citizens to understand, build, transform and develop cities”^[10(p72)]. Therefore, the main issues around the project objectives can be summarized in **Figure 6**, which is extracted from the report of edu company in charge of the project.

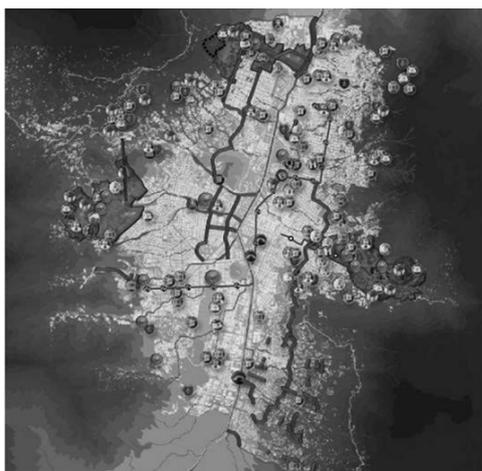


Figure 6. Main factors of Medellin’s educational intervention.
Source: EDU^[10(p59)].

In addition, in view of the danger of many radras being mobilized to the city center, Huancheng garden is trying to build high-quality land to help overcome the anomalies caused by invisible borders and general insecurity. However, contrary to what is said, it will provide a safe communication path for pedestrians and cyclists, which is not very good, because we should not forget that criminal gangs are showing that 10 million people are occupying territory, so that the authority of the state disappears from them. Therefore, projects based on the values of life, equity, development, sustainability and institutionality must be implemented in order to

restore national legitimacy in previously abandoned areas where armed groups began to play a role but are now regarded as living space under the pillar of Medellin government intervention (**Figure 7**).



Figure 7. Pillar of Medellin’s Government.
Source: EDU^[10(p62)].

Finally, those who will be resettled or receiving benefits must be instilled with a sense of territory so that they can take root in their homes, ensure ownership of these places, and provide security, mobility, public services, medical care and other aspects essential to the regularization of communities previously seen as incursion.

3. Conclusions

When analyzing the impact of tropical green belts on the social and urban transformation of the Abra Valley, it must be recognized that Medellin is a dynamic entity that changes according to the urban conditions in its territory. Therefore, if we do not adhere to appropriate policies and establish institutions that can maintain the operation of the established space and process, the progress made may soon break down. In this regard, it is undeniable that many urban interventions have significantly changed the reality and social relations within urban communities, largely due to a new understanding of the role and status of the people living there, who are now the main drivers of the envisaged change. As a result, over the past few years, it has shifted from having some of the most militarized urban environments in Latin America to a completely different view of the role that the state and society must play in eliminating the culture of violence that has only recently prevailed. In the mindset of Medellin’s different social classes, this change is largely due to the fact

that communities, hillside areas and even former garbage dumps are no longer seen as a problem, but are increasingly integrated into the conditions of urban participation, accessibility and quality of life have improved to unprecedented levels in Medellín.

However, the various initiatives taken should not translate their results into an unchangeable paradigm, as they themselves are a collection of urban experience established with multiple political party communities, calling for a wider feedback on new intervention strategies with a view to transforming Medellín's increasingly complex reality into buildings in urban overgrowth and high-risk areas. Environmental degradation, urban incursions into rural areas and diversification of forms of financing and territorial control by armed groups. Especially when this climate of urban transformation and revitalization coincides with the rapid process of deindustrialization, coupled with shocking social inequality, state neglect and organized crime, it outlines a scenario that cannot be solved by simply improving aid policies, which may lead to long-term dependence of the majority of the population and corruption of the state. To a large extent, large-scale construction, free housing and subsidy programmes have proved that they are ineffective in reducing poverty without these two real economic bases.

Therefore, unemployment and informality should become the basic themes of large-scale projects such as metropolitan green belts and gardens around the city because they fundamentally change the concept of the city in the process of trying to directly affect the urban form and occupation, which will inevitably stimulate new urban vitality and create opportunities. The concern about the above issues is obvious because the construction of these projects is a huge effort to put many families who have been excluded from national norms and planning on track, but now they must face the high cost of living in formal urban communities. Where they will be resettled, land and taxes may increase and require extreme changes in their daily lives to cope with the long-

term process that may be a source of instability for them and the city.

Therefore, it can be said that these places will change when people transform the space previously characterized by exclusion, violence and chaos into habitable areas expressed in the language of life and inclusion. However, when people live where they live and participate in their conceptualization, operation, reception, use and maintenance, they will also change, making the community the main guarantor of project transformation and sustainability. All this has led to the collapse of democracy and society, which have been given greater tools to resist the interference of illegal groups, who are eager to impose a universal fear that will once again lead to the collapse of coexistence and ties among communities, families and individuals. In addition, it should not be ignored that no matter whether any major project is successful or not, this is only the beginning of a process in which new realities will raise concerns that have never been considered before, but must be incorporated into plans aimed at continuous improvement, because whenever basic needs are met, citizens themselves need more choices and solutions to other problems.

Conflict of interest

The author declares no conflict of interest.

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