

# Urban Social Sustainability: Medellin, a Case of Community Work

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**Medellin has shown major social, economic and cultural development, but concerns remain about the increasing construction of precarious settlements in areas of high risk. Therefore, the Mayor of Medellin has been promoting and facilitating the development of “Strategic plan housing in Medellin 2020”, a public policy instrument which seeks to transform the territory through participative improvement of habitat quality with the commitment of all stakeholders in the housing system.**

Homes are divided into six socio-economic strata which have been defined according to the category of municipality, inhabitants and unsatisfied basic needs. By 2010, strata 1, 2, 3 concentrated 76.45% households, while dwellings classified in stratum 4 accounted for 11.0%, in stratum 5 for 8.15% and higher only for 4.4%. The housing deficit since 2006 has been growing at an annual average of 1.20% (560 dwellings per year); by 2011 the deficit is 600,000 dwellings.

In order to improve the living conditions of these slums, Integral Urban Projects (PUI) is a methodology that guides public actions and investments to the systems of public space, public services and facilities. Regularization subprograms integrating improvements of housing estates are oriented to legalize and raise standards of urban living.

Community has participated in the decisions and direct employment, the cost per home \$15 thousand dollars were disposed by nation, department and Municipality. The result for the last 4 years, 35.000 homes delivered, which means 175.000 people happier, living a more dignified Medellin.

## 1 Last 40 years

In 1990, when I had only three years of practice as an architect, I heard an explosion on the block where my office was located at midnight on a Friday. One afternoon, when I was entering the city coming from eastern Antioquia, I could see 3 large explosions on the horizon. The drug lord Pablo Escobar added many deaths to the list on those days. On Friday afternoon, a bulletin was signed by PEPES – Individual Persons Against Pablo Escobar, stating that all people present in the public space after 6 pm would pay. I apologize for bringing this up, thus makes explicit the painful situation that our city, Medellín, lived for nearly 25 years, from 1978 to 1998.

I do it only to refer to the unfortunate history that our city faced, and in memory of the thousands of people and friends who have died during the fights between good citizens and increasing the growth of drug trafficking, especially for young boys with no future in the high mountains that surround the valley.

Medellin, an industrial city known for excellence, is situated on the banks of the Medellin River, at 1550 m.a.s.l. in the Aburra Valley. It is the region of Antioquia, in Colombia, South America, located in the middle of the Andes. This city now has 2.6 million people who are part of the 3.6 million inhabitants in the metropolitan area.



Figure 1: View of Medellín industrial city by night

For many years our city, planned with an industrial vision, has been integrating migrant farmers who found employment here. However, the urban grid grew uncontrollably at the edges, releasing a little land in its southern center to consolidate factories.

After the murder of liberal leader Jorge Eliecer Gaitán on 9 of April 1948, on which rural and urban guerrilla base their terrorist movement, security issues, employment and quality of life would never be the same. The battles forced the exodus of those farmers and thousands of families came to the big cities, citizens who fled the rural violence to find a not too different cruel and unfair reality in the city.

The drug business stuck to all social classes, structured a slum empire of fear and pain, and between the years 1970-90 was the most complex history that Colombia and Medellín could take on.



Figure 2: Drug business, guerrilla and destruction

Border territories in high gradient stream topographies where receiving a very high number of farmers, now called “citizens for surveys”, citizens who were outside the state support and recognition.

The huge imbalance of attention from the entities providing basic services like water, electricity, energy, caused a lack of decent transportation systems and a lack of jobs. Because of the absence of the state, particularly in the fields of education, health and safety, hatred and rancor were allowed to grow, and the seeds of violence and terrorism to germinate.

1990 was the year when the drug trade committed the cruellest crimes against civil society. It was also the year when the national and local government defined strategies focused on the disadvantaged population.

Public policy initiated community consultation. This happened in 1991, when the new constitution in Colombia defined mandatory consolidation of land management plans for all municipalities. It also defined that the community should actively participate in the construction of the perception of their cities. It would take many years for this to become real and operative.

By 1998, the Black Sunday forced the reaction of citizens. A bomb was planted in a sculpture of Fernando Botero, killing 16 children and 26 adults. This act became the epicenter of change and forced the mothers of these young people, outside the law, to reflect on what their children were doing. These mothers grouped and initiated disarmament campaigns, consisting in many cases too bring their children to justice.



Figure 3: Young with hidden faces, sculpture of Fernando Botero, mothers engaged in disarmament campaigns

Twenty years ago, this was Pablo Escobar's town, with an annual homicide rate that peaked at 381 per 100,000 inhabitants. But Colombia's second city has lately become a medical and business center with a population of 3.5 million and a budding tourist industry, its civic pride buoyed by the new public buildings and squares, and exemplified by an efficient and improbably immaculate metro and cable car system. Linking rich with poor neighborhoods, spurring private development, the metro is for residents of Medellín, a shared symbol of democratic renewal.



Figure 4: Metro cable transport system to the high mountains

Residents voted to direct a share of government financing to new schools, clinics and college scholarships. 14.5 billion Pesos are going to be invested from 2012 – 2015. The murder rate, while hardly low, is now under 60 per 100,000 habitants. Architecture alone obviously doesn't account for the drop in homicides, but the two aren't unrelated, either. Around the world, followers of architecture with a capital "A" have focused so much of their attention on formal experiments, as if aesthetics and social activism, twin modernist concerns, were mutually exclusive. But Medellín is proof that they're not, and shouldn't be. Architecture, here and elsewhere, acts as part of a larger social and economic ecology, or else it elects to be a luxury, meaningless except to itself.

The story of Medellín's evolution turns out to be neither as rosy nor as straightforward as fans of new architecture have tended to portray it. It's generally told as a triumph for Sergio Fajardo, the son of an architect who is the governor of the region and who was the city's visionary mayor from 2004 to 2007. He pushed an agenda that linked education and community development with infrastructure and glamorous architecture, (Medellin la más educada), "Medellin the Most Educated".

## 2 Management and economical strategy

The strategy is based on a public policy of the following elements:

- Generation of trust for the payment of taxes
- Investment and transparent management of taxes
- Building community reports as a government program
- Considering that public monies are sacred
- Reducing corruption
- Efficiency and effectiveness in budget management

### 2.1 Context

Medellin is the second most important economic center of Colombia, after Bogotá. The city represents over 8% of GDP and in conjunction with the Aburrá Valley contributes about 11% - one of the most productive regions of the country. It has the second GDP per capita for 2005 (PPP) of \$ 5547.8,95 behind the capital, and business density of 25 companies per 1000 inhabitants, which also ranks as the second highest in Colombia. Industry accounts for 43.6% of GDP, services for 39.7% and trade for 7%. The industry sectors with the highest share of added value generated in the metropolitan area are the textile, chemical, food and drinks industries. In the last three decades the city has been experiencing a significant diversification of its economic structure with the development of other sectors, such as intermediate goods and capital goods.

This allowed for the opportunity to consolidate an action for the collection of taxes. Campaigns to encourage the payment of taxes and the proper management of these have resulted in an increase of revenue of 40%.

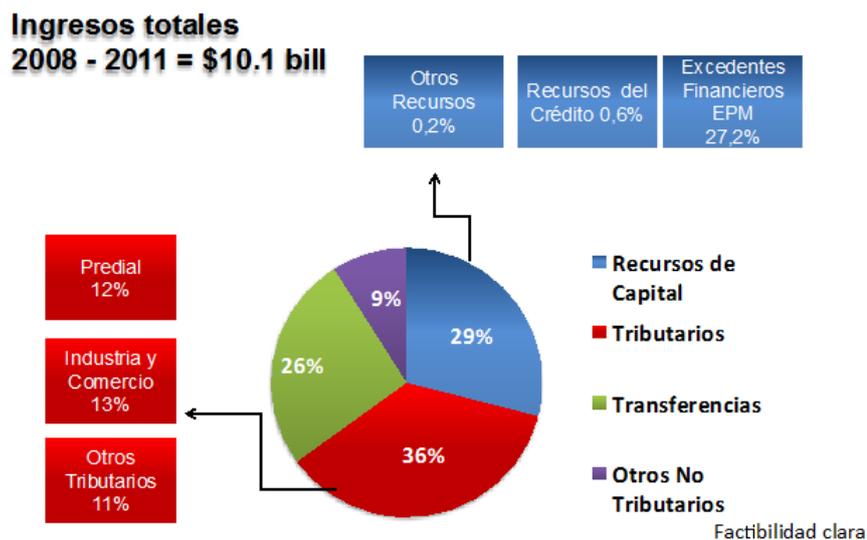


Figure 5: Income projection medium-term fiscal framework

To give a precise explanation on the topic, I will discuss this image referring to the origin of resources for the execution of works in the city. For the period 2008 to 2011, the city management projected revenue of 10.1 billion Colombian pesos, originating from the following sources:

## 2.2 Taxes

They represent a total of 36% and consist of property taxes, 12%, industry and commerce, 13%, and payment of other taxes, 11%.

## 2.3 Capital Resources

Representing a total of 29%, they are composed as follows: Surplus of Medellín Public Enterprises, a company owned by the municipality of Medellín and Colombia's largest in this sector (provider of utilities like energy, gas, water and telecommunications), accounts for 27.2%, Credit Resources for 0.6% and other resources for 0.2%.

## 2.4 Transfers

With 26% in total, they represent the national government resources intended for city projects such as transportation equipment, sport, and health.

## 2.5 Other non-tax revenue

These represent 9% and consist mainly of international support to various programs.

The program attributes to neighborhoods of all the communes of the city a budget of 2.8 billion Colombian pesos. This means that the management of the city budget for the construction of public infrastructure requires honesty and transparency, responsibility for paying the citizens and the timely definition of schedules and work involving the greatest number of people.

The specific budget of PUI is defined according to the number of projects being developed at the same time. Their scope may have been defined to run on a timeline even exceeding the term of the administration. Comuna 13 has invested to date 280 billion Colombian pesos represented in projects of all kinds - mobility, housing, public space, education, health, and safety.

## 3 A New Way

A new policy of participation and a series of well-designed urban projects were found in the city, bringing light to the solution. Community participation at all levels allowed the consolidation of groups and a stable development in the responsible behavior of directors and managers. A policy involving private enterprise, active and responsible for their taxes, helped to consolidate an active state.

The active participation of citizens, choosing their future, urban transformation and consolidation changes the way of politics. The urgent need to define the future of the planned territories and structured municipal and state policies arises, allowing for local development plans to emerge.



Figure 6: Citizen participation, local development plans

These local development plans were the dream reflecting the requirements of the community and its neighborhoods. They were the result of much thinking and fitted in with political and regional strategies. Technical experts and community planners agreed that the projects were a great encouragement for the 7 areas and 16 comunas of Medellín, marking the birth of regional planning and shared construction. Groups of professional communicators and social mediators approached the territory and kicked the community in order to find social-, political, family-, and sports leaders. In many parts of the barrio, in schools, on the soccer fields, in family gatherings, leaders appeared. Together with these leaders we built trust and presented a new way of doing politics and building the city.

An agenda that would detect and diagnose the territories and their needs in public activities was established. The slogan that promoted progress was: **Planning For Not Improvising**. Defining territories were the major investment, and then we initiated logistical planning, contractual work and appointing staff professionals. These territories were selected by a panel data approach. The territories were basically selected according to the following criteria: 1) Where human development indices were lower; 2) Where a high percentage of domestic violence was detected; 3) Where un-nutritional conditions for vulnerable infants prevailed; 4) Where the largest number of children and youths lacking access to education were found.

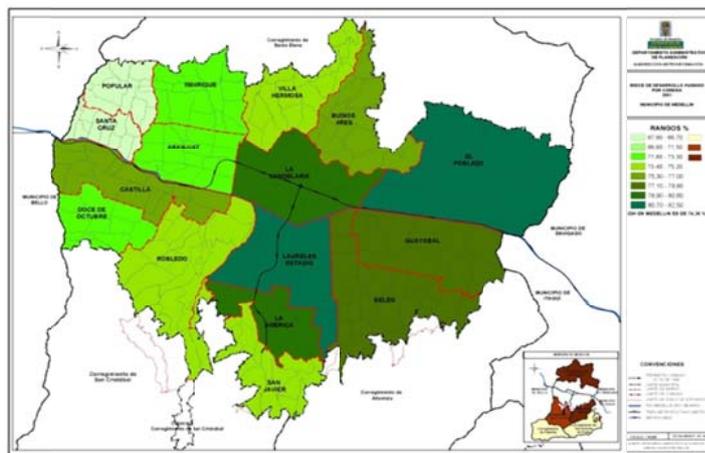


Figure 7: Human development indices

This led the community and technical experts to understand that projects must be implemented in those areas. Experts, politicians and the community agreed that transformation should begin there, in areas that had been devoid of decent facilities and public space for almost 50 years. The buildings promoting transformation would not be where they are usually located, nor where tourists had easy access; rather these infrastructure interventions would be in places where people lived unprotected and lacking equal rights.

You can't begin to grasp Medellín's architectural renaissance without understanding the role of EPM, the Empresas Públicas de Medellín, which supply water, gas, sanitation, telecommunications and electricity. EPM is constitutionally mandated to provide clean water and electricity even to houses in the city's illegal slums, thus providing a safety net in Medellín. More than that, E.P.M.'s profits (some \$450 million a year) go directly to building new schools, public plazas, the metro and parks. Three of the most beautiful public squares in the middle of Medellín were donated by E.P.M. (Pies Descalzados, Parque De Los Deseos and La Plaza De La Luz), and at the top of the slums in the city's Northeast district, E.P.M. paid for a park in the mountain-top jungle, linked to the district by its own cable car (Parque ARVI).

#### 4 Technical experts and community groups visit the territories

As a strategy, technical expert groups were integrated consisting of civil, water, soil and electrical engineers, journalists, sociologists, lawyers and architects, on the other hand the community was represented by a diverse number of leaders, youths, mothers, grandparents, children - leaders that not only were political activists, but representatives of their generation and their roles in the neighborhood. With them, we took on the task of walking the neighborhoods, streets, corners, to identify places that were insecure for the community with regard to seismic risk, floods and landslides. Places with a lack of basic public services, representing insecurity, abuse, and abandonment including those without garbage collection, where there was no public lighting or access for ambulances or fire brigades. This allowed the construction of a mapping environment to be visible to diagnoses that were the basis for the formulation of the master plan interventions.

The community was encouraged to consolidate a top group that would articulate the needs of communities and groups, political activists, cultural groups, sports teams, and community stakeholders. These groups were commissioned to build from within the letter of community planning, the **Local**

**Development Plan.** This allowed for a joint planning with the municipality, according to the feelings of each community, to set up and structure the imaginary city.



Figure 8: Working with the community, integrating their experience and knowledge of the barrio

#### 4.1 Community participation

Weekly meetings coordinating the community and municipality were established which worked through the areas that touched the problems and potential solutions of conflicts at every level. These meetings were capitalized by the various agencies to disseminate prevention programs. Health, sports, education and culture were recurring themes. These conversations allowed the approach of the community with their political leaders and public servants. Every week, we discussed the future of our city neighborhoods.

#### 4.2 Oversight

To build trust, to establish work schedules, results were communicated and gave advance notice of what was planned and expected given. The community recognized the progress, but likewise witnessed the difficulties, and the reasons for reconsidering new strategies.

We consolidated a critical view of how the community learned to manage their future. People did not receive gifts from the politicians, but were actively involved in the community's development, assuming their commitment to act as correct and duty bound citizens, taking on responsibility for their present and future. Their work of an imaginary building process was not only requested but discussed, both formally and functionally. People were defied by their participation, the imaginary neighborhood ideas was presented on the street and in the parks. Children dreamt, young adults proposed revised, older dreams, endured with patience and enthusiasm. So we ended up with all kinds of projects: libraries, kindergartens, hospitals, health centers, soccer fields, and many square meters of public spaces, to walk on and meet the other, to respect each life and participate in a new time.

A compromise was reached, and the community wanted to work in its neighborhood buildings. The workers who built the formal city knew how to do it, but only required the construction business' confidence and credibility. We applied some ideas in contracts for unqualified assistants to benefit from the situation. That's just how quickly the workers shared space and so, not only was employment generated, but citizens' engagement as well. Each family was involved all the way to the future of our city.

The neighbors became suppliers, the workshops continued and progress, budgets and difficulties were discussed. The challenges were further considered and articulated between the community and the future status of the works. The neighbors/suppliers became overseer of smaller projects; they were responsible for their care and respect for the lives of other workers. Eventually, they said to their community: what we were doing as public administration was fair, respectful and worthy of recognition!



Figure 9: Workers from community receiving the libraries where they work

#### 4.3 A Community that recognizes

After the workday was finished, young and adult dreams acknowledged the process, the community was satisfied; they had participated since the management of ideas, until receipt of the work. Now is time of citizen engagement. That is precisely the most sublime time when all, children, youth, adults and seniors committed to have their work decently maintained, with respect and in good condition.

### 5 Urban Development and buildings

In recent years the city has developed public policies that have allowed the review and operation of **Integrated Urban Projects, PUI**. These large-scale projects share the strategy to address the most humble and abandoned territories by the municipality. Strategies that cross all population groups but especially focus on the concept of culture, as the great engine for the construction of a new citizenship.

In order to improve the living conditions of slums, **Integral Urban Projects PUI** is a methodology that guides public actions and investments to the systems of public space, public services and facilities. Regularization subprograms integral improvements of housing estates are oriented to legalization and to elevate urban living.

#### 5.1 PUI Comuna 13

But of course, ownership can't just be bestowed on poor neighborhoods; it must also be declared, in small, critical ways. In the troubled Comuna 13, members of *Revolución Sin Muertos* (revolution without deaths) painted murals around Comuna 13. Sometimes residents put their own tags on them, as if to signal support. Murals have helped people here vent frustration and proclaim ownership of the neighborhood.

Before getting to the center of the comuna you must go through the commercial Road 99a, then to Antonio Nariño Park where children can play, then using the sidewalk you get to the 20 de Julio Park, and from there, you must walk into the Barrio Independencias up the steep hillside slum, where rival gangs still shoot unsuspecting trespassers who cross invisible borders. The city has recently installed an escalator ascending 1,300 feet, shortening to a five-minute ride what had been a brutal 30-story climb for some 12,000 residents. There you see past armed soldiers, past mothers taking breathers on the decrepit steps that meander up the mountain, past toddlers on plastic tricycles plunging down vertical streets, to a brightly painted cinderblock hut, a ramshackle aerie overlooking a sprawl of tin houses and open sewers. We built mirror to see the city, but more importantly to educate our children, for new football yards, parks and sidewalk, are construct for mobility, we build the best for them.

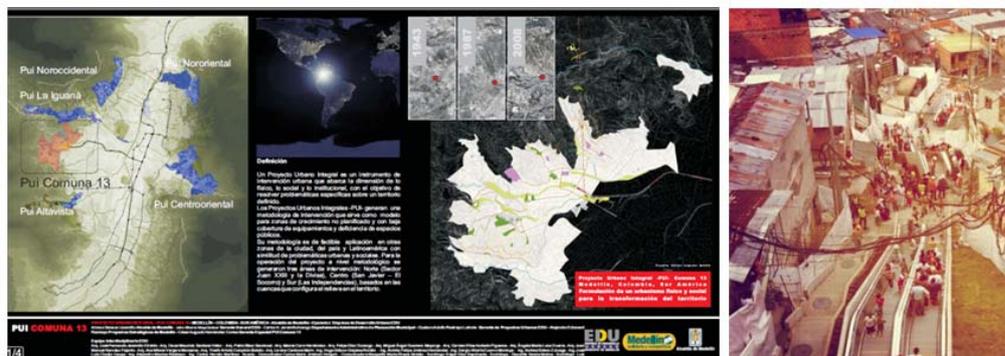


Figure 10: Holcim Award 2009 Gold for Latin America PUI Comuna 13, electric stairs

#### 5.2 Comprehensive neighborhood improvement (Mejoramiento Integral de Barrios)

This strategy allows the linkage of community development planning to closely and effectively recognize periphery territories. Urban projects need comprehensive planning strategies to integrate neighborhood improvements, and logistics to improve streets, plazas, schools and build new facilities such as libraries, kindergartens, health centers and other community meeting points.

Library parks like Biblioteca España are places of community gathering, places where coexistence teaches new ways of structuring equal opportunities. Very soon we will have 10 of these equipments.

Andalucía is another part of the Northeast slums. Formerly ruled by gangs who held opposite sides of a garbage-clotted creek, it is now remade with a sports complex and school, new sidewalks, new mid-rise housing blocks and a bridge over the creek. Dozens of shops have opened. Men are tinkering beneath cars in the hot sun, chatting over beers; children dawdle on the way home from school, eating ice cream on the bridge. A thousand eyes are on the streets.

Kindergartens are places targeted by community mothers in coordination with the Sure Start public policy program, to improve the lives of children. More than 7.000 children have the opportunity to eat well, be educated and treated with love. To this day we have built 12 and expect to reach 19 of these equipments. They are designed under the strategy of a game, that allows for a modular installation of prefabricated units in different territories.

Citizen service centers such as police stations, to ensure safe living in the barrios, are a public policy response on behalf of the government secretary and the national police for a security minded coexistence strategy. Meeting places such as parks and cultural institutions allow for an immediate intervention of the police in case of citizens' conflicts.

Schools and colleges have been refurbished as a strategy for upgrading training sites, qualifying places for quality education, buildings that house 250 children up to schools with over 1.000 children.

Thousands of meters in public space consisting of streets and squares have been improved and many built for first. Recovering pedestrian spaces that replace chaotic mobility, as is the case of Carabobo Street, have become iconic landmarks. Small spaces where to play and learn tolerance and respect have been instrumental in the transformation approach; meeting places like footbridges - Granizal and la Francia - are examples of building citizenship. At the same time they offer secure mobility strategies for police.

Explora is a dramatic new science museum and public plaza across the street from the garden which has been lovingly renovated, its walls taken down, a gem of a circular pavilion, added at the The Orquideorama is a towering wood meshwork canopy rising 65 feet above a latticed patio. Its 10 hexagonal flower-tree structures, collecting fresh rainwater and woven together like honeycombs shelter an orchid collection and butterfly reserves. The canopy is at once formally economical and spectacular.

Moravia Cultural Center, in the neighborhood, is next to a vast garbage dump. The center is one of the last works by the Colombian master Rogelio Salmona, a quasi-Moorish design of refined simplicity, all transparency, modesty and openness.

## 6 Housing

Homes are divided into six socio-economic strata which have been defined according to the category of municipality, inhabitants, and unsatisfied basic needs. By 2010, 1, 2, 3 strata concentrated 76.45% households, while dwellings classified in stratum 4 accounted for 11.0%, in stratum 5 for 8.15% and higher only for 4.4%. The housing deficit since 2006 has been growing at an annual average of 1.20% (560 dwellings per year); by 2011 the deficit is 600,000 dwellings.

Similarly participatory consultation housing strategy has been developing during the last 10 years, two different examples:

### 6.1 Garbage dump, Moravia case

This place, which for many years was a landfill, housed thousands of families who lived and worked in the recycling process. Many of these people lived in unsanitary conditions, social risks of all kinds and completely lacked decent spaces for citizen encounter.

A new Western development project was recently built on the outskirts of Medellin, with more than 8,000 housing solutions, that in the future will house nearly 40,000 citizens. Complementary equipment that have been developed like kindergartens, schools, hospitals, police stations and sub-sports facilities, will facilitate the living in that remote part of the city, I think it is not a nice example of neighborhood - too much cost was involved in infrastructure and in social construction, and the people, isolated from their customs, feel uncomfortable.

### 6.2 Juan Bobo

This type of urban housing development is the clearest example of urban acupuncture, allowing a comprehensive census of the community. To find out their needs and interests, we identified what properties should disappear, which could be improved, and where could we insert new towers, that did not exceed the standard of 10 floors (this because the norm said that we could not go more than 5 floors up). It is important to understand that these buildings have no elevators. Vertical mobility is ensured through a fixed access in the middle point of the building - the broken topography of our mountains allows respecting the norm.

What this is generating is to let communities remain to stay where they live, where they have their friends, rescuing the public space and consolidating the slums into urban structures of high validity.



Figure 11: Slums transformation to dignity houses

## 7 Medellin from fear to hope, from the ashes, reborn

Medellin has presented major social, economic and cultural developments, but concerns remain about the growing construction of precarious settlements in areas of high risk. Therefore the Mayor of Medellin has been promoting and facilitating the development of **Strategic plan housing in Medellin 2020**, an instrument of public policy which seeks to transform the territory through participative improvement with habitat quality commitment from all stakeholders in the housing system.

I think if we participate at the right time, I mean, at the very moment, with this new way to approach urban integration, that the direction down the line changes, we must act, and we did, we did it for the community and for us. With the community at our side, we listen; we respect, and build our city, grow ourselves, as citizens.



Figure 12: Citizen of the present and the future

Citizenship is not the same as participative city building, but the truth is at the end, both win.

Today Medellin is progressing, is a more mature city, which recognizes that there are ways to balance the inequalities, that there are alternatives to dignify life, that the city can build its future in a consultative manner. Those citizens have a lot to say.