SUSTAINABLE DEVELOPMENT, PLANNING AND POVERTY ALLEVIATION

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Figure 1: Montes Claros, Brazil (Photo J-C Bolay, 2018)

URBAN COMPLEXITY: GROWING CITIES IN DEVELOPING COUNTRIES, GROWING ISSUES?

The Global South is currently experiencing strong urbanization, both in terms of urban population increases and urbanized land developed. In 2018, the world population reached nearly 7.6 billion, of which 4.2 billion lived in urban areas and 3.4 billion lived in rural ones. According to UN-Habitat, 3.2 billion urban inhabitants live in South countries. During the next decades, ninety percent of the urbanization process will take place in Asia and Africa.

In parallel, cultural references are changing lifestyles and the social and economic integration of the growing urban population, where one billion - or nearly a third of the total urban population - live in slums. Urban poverty is therefore an endemic problem that has not yet been solved, despite the many initiatives taken by the public and private sectors.

To better grasp these problems, we will discuss two distinct issues that have guided our many years of work. These issues could be described as two of the founding elements for urban planning designed to create sustainable, inclusive cities.

The first is urban poverty. Simply knowing that a third of urban dwellers in South countries are poor and daily live in material and economic precarity, very much calls into question the work we do as urban development professionals. We must start thinking of urban planning as a way of fighting poverty.

The second is the focus on small and medium-sized cities, hundreds if not thousands of which (depending on the country) play a decisive role, as half of the world's urban population lives in cities which house 10,000 to 500,000 inhabitants and these cities serve as regional centers for a multitude of public services. Often unknown outside of their regions, these intermediate cities face enormous challenges, particularly in South countries which have the highest population growth rate.

URBAN PLANNING IN THE GLOBAL SOUTH, OCCUPATIONAL HAZARDS

Many critics have voiced their opinion that planning does not fully addresses the integration issues faced by a large proportion of the population. Be it in Koudougou in West Africa, Chau Doc in the Vietnamese Mekong Plain, Montes Claros in Brazil or Nuevo de Julio in the Argentinian pampas (example that we will develop further in this text), the issue of greatest concern to planners is "How can we beautify cities and make them more attractive to city dwellers and investors," not "What can we do to reduce poverty and better integrate poor people living in precarious conditions?" While not diametrically opposed, the thinking behind

Figure 2: Koudougou, Burkina Faso (Photo by J-C Bolay, 2014)

these two questions is nonetheless divergent. The former avoids delving too deeply into societal complexity and instead seeks technical solutions to improve the city's functionality (infrastructures, networks, communication routes, equipment, etc.), too often forgetting the universal need for accessibility (i.e. for the poor as well). The second makes citizens the focus by recognizing the fact that integrating people socially, economically and culturally fosters sustainable, inclusive urban development. In this sense, urban planning in South cities is too often incomplete at the spatial level, as experts only focus on specific parts of the territory and typically abandon poor, poorly-regulated and outlying neighborhoods. This approach is also poorly adapted socio-economically speaking, as it tends to focus on business districts and the "select" areas that privileged social actors invest in, based on their financial status, relationship to power or even community or ethnicity.

Based on a comparative study of nine South cities, Devas (2001) concluded that the standards established for infrastructure, facilities and buildings were completely unsuited to the conditions of the poor but formed a perfectly workable system of regulation by individuals with economic and/or political power. This is largely because methodological and technical debates are dominated by Europe and North America practices which take Western cities - whose characteristics radically differ from those of developing countries - as their point

Figure 3: Chau Doc, Vietnam (Photo by J-C Bolay, 2018)

of reference and as experimental sites (Edensor & Jayne, 2012). Reproducing these recipes in different urban contexts is simply nonsensical and can only offer ineffective solutions. The management of public facilities and services is a good example. Today, the privatization of the latter is a major trend. Hence, the profitability of urban investments and their management takes precedence over their "universality."

In many South countries and Western countries as well, the management of basic sectors such as water, energy, transportation, culture and public spaces (to name only the most obvious) is now in the hands of private companies. It is perfectly valid and healthy to worry about the balance of public finances. However, it is untenable to do so at the expense of the working classes, whose economic conditions impede their access to a whole range of amenities and services by making charges for services exceed the spending capacity of modest income households. Therefore, the question is who decides on urban investment priorities, based on which criteria and for whose benefit[1]?

For Watson (2009), demographic and territorial growth in South cities inevitably leads to a concentration of poverty and social, economic and spatial inequalities. Urban planning as applied in many developing countries cannot anticipate or solve the multitude of intertwined problems, between the local needs of each family, community and neighborhood, and the production of planning based on

the entire urban territory (but with inexplicit priorities) by specialists.

As the saying goes, "We only lend to the rich." In South cities, the poor know this better than anyone else. Putting aside the social and economic repercussions of urban development, it is normal for companies (public and private) to favor individuals, social groups and, by extension, areas of those city they know will provide a return on their investments. However, they quickly forget that this short-term profitability reinforces social segregation and the fragmenting of the urban territory between rich and poor, and developed and marginalized areas. Though the costs of this are not immediately discernable, they are in the medium and long term. How? Firstly, creating more and more poor neighborhoods that are in turn neglected by the authorities increases insecurity, both real and perceived. Wealthy neighborhoods are equally marginalized and isolated, with gated communities hidden behind walls and protected by private police. The environmental costs also are very high, with some parts of the city lacking basic sanitation infrastructure. Natural resources (water, soil and air) are contaminated and impact the health of inhabitants. Again, it is the poor who suffer the most. More indirectly, however, it is society that pays the price as public schools and hospitals are reserved for families without sufficient means, savings or social security, while clinics and private schools' welcome well-to-do families.

And yet, statistics have long shown that the most dynamic, innovative, richest companies are those that invest in these "social" sectors that benefit all citizens. We must therefore bear in mind the idea of the common good, of going beyond individual dynamics and begin rethinking urban planning in a vision of shared urbanity (harmony between the natural/built environment, fighting poverty by favoring social integration, etc.). Though this is feasible and already exists, it is far from being the rule in South cities. Thus, we must reverse the current logic and redefine the priorities of planning.

LESSONS? LEARNING FROM WHAT EXISTS AND BY DOING BETTER

With this urban context of insecurity and uncertainty about the future of these small and medium-sized cities, we can speak of "poor cities," not only because many citizens actually live on the edge of poverty but also because the urban authorities cannot afford the investments needed to improve daily life for residents. Reversing this trend would involve changing urban planning by moving away from development models that were designed to comply with standards and rules in completely different contexts (i.e. Western countries) and established by specialists with little to no knowledge of the Global South. The major risk here is marginalizing the poor living informally in the most underserved

Figure 4-7: "Ciudad Nueva" neighborhood, Nueve de Julio, Argentina (photos by Teo Vexina Wilkinson, CODEV, 2017)

Figure 8: Nueve de Julio, Argentina (Photo J-C Bolay, 2018)

neighborhoods. However, it is also an extraordinary opportunity to think about the future based on what exists, taking into account the actual financial and social resources of these cities, to design and implement urban planning that fights against poverty, and to invest in facilities with a sustainable impact on the poor's living conditions.

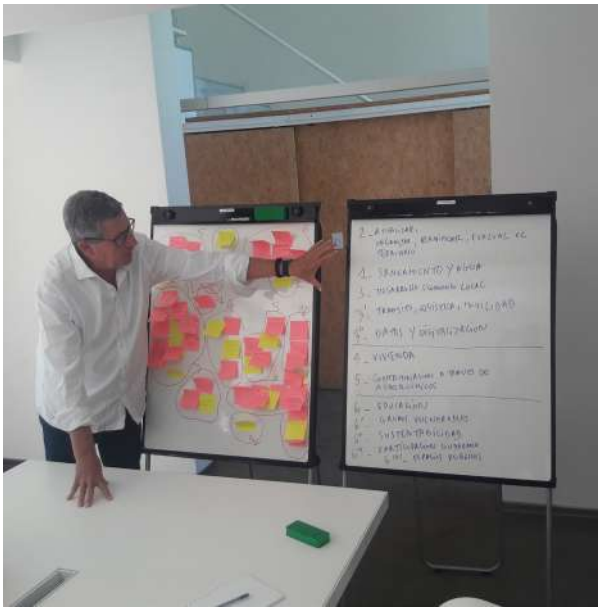
Urban planning in developing and emerging countries must be entirely rethought. The essential point, which is too often overlooked, is to start from a participatory diagnosis in which the reality of the city is examined in its various dimensions (demographic, spatial, infrastructural, economic, social and environmental), thus allowing all stakeholders to find their place. This cartographic, documentary and anthropological information should serve as a database that can then be uploaded with real-time information, thus facilitating the monitoring of "urban development" and a collaborative, up-to-date decision-making process. In parallel remains the question of establishing priorities in terms of lacking infrastructure, standards, rules and plans that are tailored to the context, the needs identified by specialists, requests from different social actors, and internal and outside financial resources. Two principles should guide this process. The first is that urban investments should be used to fight poverty either directly or indirectly. The second is a global vision to guide the specific actions in the short, medium and long terms. These precepts can only be applied if the framework conditions are respected as local and regional governments must

have the human competencies and financial resources available that will enable them to act. This is not impossible if the political will is there and is considered legitimate by the population. This inevitably involves consultation frameworks that will open a dialogue between representatives of the population, public administration, political powers, industry professionals and other special interest groups (private sector; social, religious, and political groups; NGOs; etc.).

THE CITY IS FULL OF DECISION MAKERS, SO LET'S TRAIN THEM TO BE GOOD URBAN PLANNERS

Training, communication and dialogue play a key role in planning and they should do the same in implementation. Here, too, there is room for innovation, starting with social practices and human dynamics outside of the formal context at the local and regional levels. When the indispensable technical know-how of urban and business experts is absent inhabitants are forced to take matters into their own hands and wind up doing the job (building homes, community facilities, better managing their neighborhoods, etc.) themselves, sometimes with poor results. The collaboration of all citizens should be neither overlooked nor set aside, for they are the very heart and soul of a participatory process that includes not only consultation, but conception and action as well. Rather, these forces can be incorporated into the planning process, where they can be useful in the implementation of collective decisions.

igure 9, 10: Workshop in Pehuajo, Argentina (Photo J-C Bolay & E. Labattut, 2019)



Communication is also a key issue. How to learn from other cities via the Internet and increasingly frequent global exchanges on urban matters? As Campbell (2012) explains, we learn from both near and far, and no longer unilaterally from North to South but also from South to South and South to North.

FROM RESEARCH TO IMPLEMENTATION: A COLLABORATION WITH A NETWORK OF ARGENTINIAN MEDIUM-SIZED CITIES

The best example of such an approach is what we currently share with the "Colegio de Arquitectos[2]" in District 7 of the province of Buenos Aires in Argentina, where we have created an urban planning training program for professionals in 15 intermediate cities in the northern part of the province. This program is in line with SDGs (sustainable development goals) and their role in the urban context, as defined by Objective 11 "Sustainable cities and communities"[3].

The project was based on an initial collaborative project between the Municipality of Nueve de Julio – a city of 37,000 inhabitants located 260 km from the capital, Buenos Aires - and the CODEV (Center for Cooperation and Development, Ecole Polytechnique Fédérale de Lausanne, Switzerland). The collaboration helped us to better identify training needs and to determine the appropriate methods.

The first project phase assumed that the urban planning tools available to the municipality were not adapted to the urban and social needs/reality. We found that the city's planning department possesses little data nor did it have an up-

Figure 11, 12: Workshop in Pehuajo, Argentina (Photo J-C Bolay & E. Labattut, 2019)

Figure 13: Localization of Nueve de Julio, Buenos Aires Province, Argentina.

dated plan of the networks or a mapping department. These departments were also understaffed. In 2018, Municipality of Nueve de Julio had a single urban planning unit with only two architects. The reference planning document was a zoning plan, a non-versatile urban planning tool that does not convey a project or a vision of the city's development.

Based on these observations, a collaboration agreement was established between the city of Nueve de Julio and the CODEV, with the central question: how to create a GIS (Geographic Information System) tool with limited resources? Both parties agreed that the priority was for the municipality to ensure the production and management of data in order to gain a better understanding of the territory while creating a common tool that would facilitate work between the various municipal services. Among the main findings were:

- A lack of human and material resources for urban planning at the municipal level;
- The lack of a unifying project for the city in terms of urban and territorial planning beyond the urban code (zoning plan);
- Incomplete urban data scattered among the various municipal services;
- A need to include more urban actors, namely residents but also service providers such as the service cooperative, the university sector, etc.

The municipality of Nueve de Julio agreed to develop human resources in the department and the need to invest in material and technological resources. In

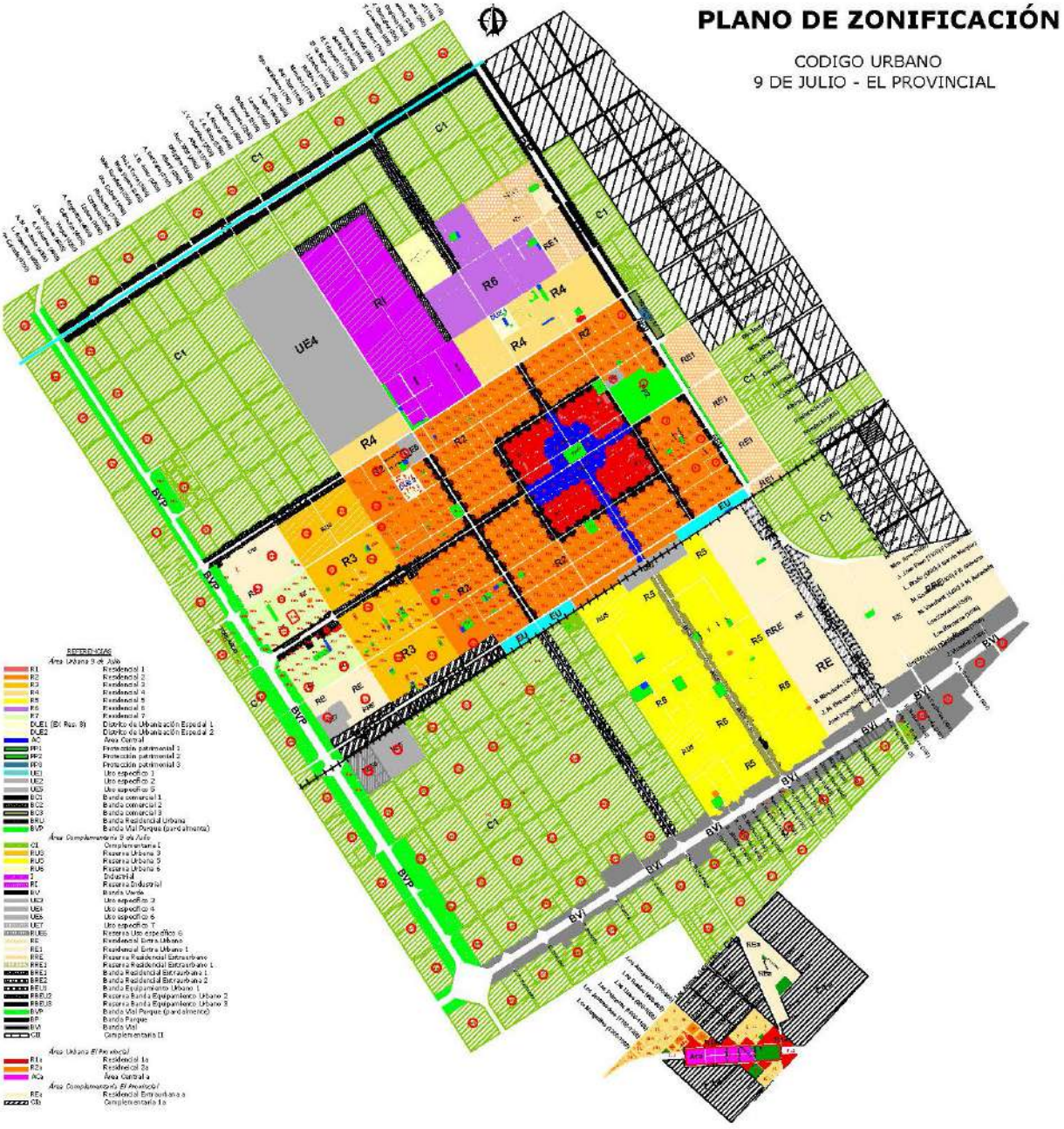


Figure 14: Existing zoning plan of Nueve de Julio, Argentina, 2018

turn, the CODEV agreed to support its effort on planning data acquisition.

A list of 35 essential GIS layers was developed along with an inventory of the availability of this basic data within the municipality (Cortat, 2017). These 35 layers were ranked in order of priority from 1 to 3 depending on their importance (1 being of the highest importance, 2 of medium importance and 3 of minor importance). A synthesis of this work showed that a certain amount of data already existed, even if it sometimes appeared in an inappropriate file format, was not digitized, nor had it been updated to fully reflect actual conditions. The conclusion was that half of the basic data existed and the other half needed to be collected.

Three priority actions were then proposed to the municipal planning department: (1) to start building an initial database with existing data after digitizing and converting it to the appropriate formats; (2) to prioritize by assessing the benefits and viability of each production or acquisition of an additional dataset; and (3) to work in collaboration with other actors in order to obtain as much data as possible.

It quickly became clear that setting up data collection, even minimally, would prove difficult for the municipality's urban planning department, which has neither the staff, nor the equipment, nor strong political support from the mayor. To circumvent these issues, the partners envisaged refocusing the project on the Ciudad Nueva neighborhood – an area of 10,000 inhabitants living in precarious living - by developing a participatory citizen mapping process to demonstrate that a lack of financial and human resources could be overcome using simple, inexpensive technologies. But by late 2018, this proposal had run up against political blockage and the project ended in a stalemate.

The second phase aimed to work with a network of cities in the Northern part of the province of Buenos Aires to overcome such local political blockages. In early 2019, the CODEV launched this phase along with the "Colegio de Arquitectos (CAPBA)," an important and recognized institution in Argentina that is present throughout the country thanks to regional and district representation. The Colegio de Arquitectos of District 7 (CAPBA D7) set up a network of cities, the "Red de Desarrollo Urbano Pampeano (ReDUP)," which comprised 15 cities of less than 50,000 inhabitants including Nueve de Julio.

A first seminar helped highlight the fact that the problems in Nueve de Julio (unplanned urban development, lack of data, inappropriate planning tools, etc.) were common to all the cities in the network. The CAPBA D7 and the CODEV thus established a research agreement in December 2018 to overcome political blockages at the local level and provide technical support to municipal staff. We deemed this approach to be in line with the network's general ob-

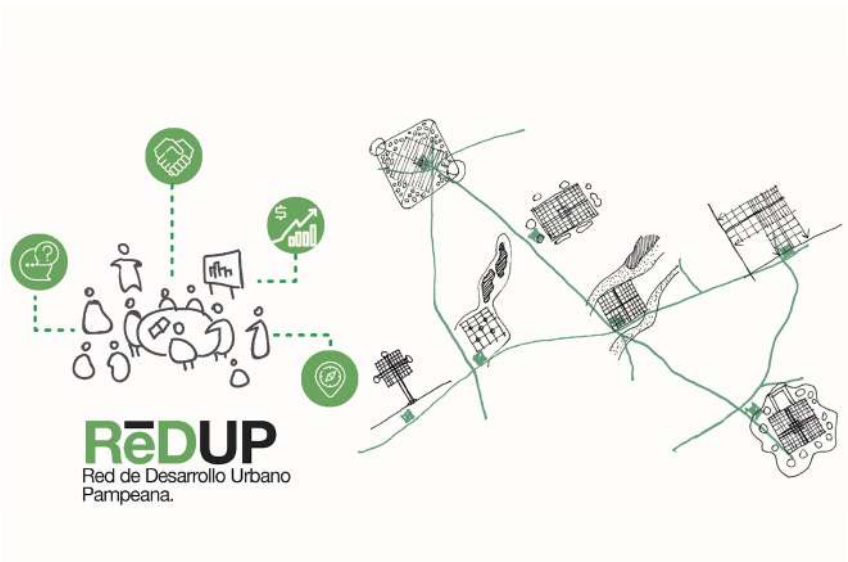


Figure 15, 16: Flyer for workshop in Pehuajo-2019, Pampeana Urban Development Network (Source: CAPBA D7)

jectives of promoting knowledge sharing and experimentation at the regional level, pooling resources and developing appropriate tools and training for municipal technicians.

This new project phase, which ends in December 2019, will allow for a regional diagnosis of the priorities of each city and establish their need of urban planning and GIS capability. Additional working seminars with municipal technicians, planned for March 2019 and September 2019, will be used to draw up specifications for the construction of a GIS platform that is adapted to the needs of the network of cities as well as for the implementation of a training program, supported by the Colegio and by provincial and national institutional partners who have since joined the initiative.

CONCLUSION: BETWEEN CRISES AND URBAN STRATEGY, THE CHALLENGES OF PLANNING

Urban planning is not an end in itself: it is a human and technological way to anticipate the future and act in a coherent, responsible way to guarantee urban and peri-urban residents' well-being. To address the real problems that urban inhabitants and authorities face, planning must create collective infrastructures and access to services that aim to reduce poverty and develop a more inclusive city with better organization, for it to be environmentally, socially and economically sustainable.

Our conceptual thinking on the need to quickly find innovative ways to design and develop urban planning in South cities is reinforced by our fieldwork ex-

Figure 17, 18: Pehuajo, Argentina (Photo E. Labattut, 2019)

perience as well as the local and regional collaborations that have been set up.

Today we are at a turning point. Having spent a considerable amount of time studying its practical application in extremely divergent African, Latin American and Asian cities, we have now moved into this new training and local capacity-building phase for urban and regional planning.

At the end of a first seminar that brought together municipal technicians from nearly 15 intermediate cities in the province of Buenos Aires, Argentina, some useful lessons were learned for the remainder of the process.

First, in order to define priorities for each city, a shared diagnosis must be established as a first step. This should not only be based on analyses by urban experts - municipal technicians and professionals – but should also include other stakeholder groups. To implement it, cities must have data and analyses at their disposal to observe the major phenomena and dynamics at work in their territory, at the environmental, economic, social and urban levels. But analyzing territories based on data would require a significant change in the municipal work culture, including new skills for technicians, integrating new tools and developing new approaches to interdisciplinary collaboration.

Secondly, for most of these technical experts, planning is first and foremost a task to be managed between planners, engineers and computer scientists. Other communal or regional services - social, health, environmental or cultural - are there to provide data that the former can then process and analyze. Municipal technicians' request is therefore primarily technocratic: to provide them

with databases and computer platforms that they can then share, geotag and analyze. This hierarchy of responsibilities and tasks implicitly extends to other urban actors (inhabitants, lobby groups, social or economic groups).

At this stage, however, citizen participation is still an abstraction. We still have a lot of work to do together to prove that this dialogue between all interested parties is not intended to minimize the work of technicians or their skills, but rather to enrich the database based on social demands. Above all, it should serve to boost urban management by taking collective responsibility for this "common good," this shared urbanity and living environment that is supported and respected by all.

The field work carried out during recent years in small and medium-sized cities in Burkina Faso, Brazil and Argentina is helping us to attract the attention of specialists and decision makers to intermediate cities that, though they are home to half of the world's urban population, are little studied. All these small and medium-sized cities face various forms of precarity, with relatively large poor populations, local governments that lack both the financial means to invest in solving the problems they face and the human resources to initiate and manage an efficient planning process. In most of these cities, the governments are still not open to democratic participation processes and do little to incorporate social demands into their development plans.

Based on this analysis, we consider it is imperative to reinvent urban planning as part of a more participatory process that meets the expectations of citizens with more realistic criteria.

This process involves different phases: an analysis phase grounded in the identification of urban investments needed to improve the city; consideration of social demands; a realistic assessment of the financial resources available (municipal budgets, taxes, public/international grants, public-private partnerships), and; a continuous dialogue between urban actors to determine the urban priorities for the coming years.

This protocol shall serve as a basis for the training program initiated in Argentina for urban actors in small and medium-sized cities, which we hope to later extend to other the South countries.

Endnotes

1 This issue become more acute if cost recovery financing is implemented for capital investments.

2 Colegio de Arquitectos de la Provincia de Buenos Aires, distrito 7: ReDUP (Red de Desarrollo Urbano Pampanea) http://www.capbad7.com.ar/default.aspx

3 https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-11-sustainable-cities-and-communities.html

Figure 19: Pehuajo, Argentina (Photo J-C Bolay, 2019)

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