

Content

1. Editorial
2. Dense or sprawling cities: what future for the peripheries of the Cities of the Global South?
3. Land-use change: stakeholders and practices
The example of Indian cities
4. What structure for the urban peripheries of the cities of the South?
6. Mapping and measuring cities, a preparatory step prior to urban planning: the example of Ouagadougou
7. The stakeholders involved in structuring Mexico City's poor peripheral districts
8. Urban utility companies – consolidators of the city: the example of Lima
10. Agenda and publications



The Urban Peripheries of the Cities of the Global South. The challenges and means of achieving managed urban growth

In a changing world, we need to reform development cooperation policies

The development community has seen many changes in the last fifty years and will experience many more in the future.

To begin with, geopolitical developments are confronting us with new forms of influence, while at the same time maintaining existing power struggles: the end of the “cold war” and the East-West conflict, the end of the division of the world between the “rich” North and the “poor” South, high levels of conflict that test the limits of military solutions, the end of the monopoly exerted by states on international relations to the benefit of members of society.

In addition, the economic situation in Africa is changing and the continent is exhibiting a new attractiveness, while at the same time continuing to suffer from severe difficulties. But the economic situation is also changing in Europe: the economy has to cope with the digital challenge, the domination of financial activities and serious problems associated with poverty and changing models of production.

Changes have also occurred in the approach to combating poverty which now goes beyond the provision of “safety nets” and considers the issue of inequality and redistribution mechanisms in order to identify new models for growth that are both inclusive and sustainable.

All these change do not mean that the world has become uniform, but rather that the “North” and the “South” are facing the same problems and that we would do better to talk again about cooperation rather than aid.

The new Sustainable Development Goals approved by the United Nations in September 2015 can also guide us

with regard to the revision of cooperation policies because of their universal nature and the importance they lay on human dignity. They state the goal of achieving steady, shared and sustainable growth and encourage the attempt to find integrated solutions. They bring together the national level and the need for global partnerships and call for the creation of coalitions of actors by combining funding from external and local sources.

In view of the above, the development community needs to make the following changes:

- Make the transition from an aid partnership to a strategic partnership dealing with shared issues on the basis of the interdependency between the situations in the North and the South.
- Combine respect for the (national) sovereignty of partners with the (international) solidarity that makes it possible to “overcome boundaries”.
- Continue to seek to influence public policies (at a different scale) by means of the results of action.
- Take up the challenge of coalitions of actors by modifying our representations of each other and gaining recognition for different types of legitimacy.
- Increase our involvement in multilateral efforts in order to play a greater role in negotiations about the major issues facing the world of tomorrow.

A crisis is also synonymous with transition and opportunities. We should discuss change, consider the long term and experiment and build on the past as there are no pre-existing solutions. We should also be daring while remaining clear-sighted. ■

Marc LÉVY

Director of Forecasting at GRET
levy@gret.org

Dense or sprawling cities: what future for the peripheries of the Cities of the Global South?

In Nouakchott in Mauritania, as in all the Cities of the Global South, the demographic explosion has led to unbridled growth in peripheral zones. This process will continue in future decades when a new African urban population numbering hundreds of millions will not take up the gaps in the existing cities or even make them denser but will be forced to move onto completely unurbanised land. Jérôme CHENAL, head of the Urban and Regional Planning Community at the École Polytechnique Fédérale de Lausanne (EPFL), considers that the challenge currently facing African cities does not lie in the existing city or the city centre but in the outskirts.

Planners need to think about how peripheral districts should be urbanised, bearing in mind the context of climate change. We should not forget that the impacts of climate change are not the same everywhere: some areas will become wetter, some drier and others hotter. The necessary responses will not be the same in every city. In a dry climate, the answer will be to attempt to gain some protection from the sun by building densely, while urban sprawl is a better solution in very wet climates in order for water to be able to seep into the ground.

Having thus stated the two conditions of the large increase in the urban population and the varied nature of the responses, what are the expectations of the political community? The answer to this question is the creation of a compact city thanks to the combination of urban planning and transport.

While compact city models, which consume fewer resources, are possible in cities whose networks are complete and where median salaries are high enough to allow the population to benefit from almost unrestricted travel for their work or leisure, we can question whether they are appropriate in the Cities of the Global South. The lack of resources to spend on travel, even travel to work in many cases, means that whole populations are effectively “under house arrest” in their peripheral zone which not only lacks water but an electricity network too. This means that the compact city model is not an option. Let us make the hypothesis that the compact city is appropriate in Africa, but only in rare, exceptional, cases.

This is true even though very low density is costly, as is very high density, because it is necessary to develop the technical systems that make it possible. In the case of higher densities, storm water drainage – to just take this example – will require the installation of a system of pipes as the water will no longer seep away. Thus what is gained in one sphere can be lost in another. There is therefore an optimum state somewhere between very low and very high density which depends on the morphology, geography and climate of each city. If we accept that there is a direct link between urban forms and society, we have to conclude that the responses and optimum states will not be the same everywhere. We need to understand how to tailor the density to each case rather than unilaterally giving a one-size-fits-all response for every urban area.

In the case of peripheral zones, five questions spring to mind. These require an answer in order not only to understand what actions to take in a given area, but also, and above all, to have the capability of designing the city of tomorrow.

- Firstly, we need to examine the concept of density and compact urban form. There is one essential issue, that of legality – or illegality – and therefore that of the widest possible access to the property market. In most of the Cities of the Global South the population does not have access to property because even a bare plot is out of their financial reach. If we take the view that the poor have as much right to live in a city as others, the only way they can do so is to set up home on the fringes of the city centre or in the outskirts. We are thus faced with a paradox in relation to the concept of the compact city as these groups that do not have



Urban sprawl in Nouakchott, Mauritania, 2007

Photo credit : Benoit Vollmer- EPFL

access to the official property market because of their poverty set up home as far as possible from the planned city, as this enables them to remain in place for the longest possible time before they have to move again. It is therefore important to find ways of dealing with this phenomenon which once again raises the issue of land ownership and private property. For 40 years we have been building housing estates, and after 40 years the problem still subsists.

- Public transport creates urban sprawl by segregating the poorest social groups. The city of Rabat in Morocco provides an interesting example of this phenomenon. The authorities built a tram system, but it was much too expensive (ticket prices have since been reduced twice). However, the arrival of the tram or metro lines increased rents and hence land and property prices. Those living near the tram, who were potential users, were gradually forced to move further away because of the rise in property prices. When they moved out they were replaced by wealthier groups who preferred to travel by car. The mechanisms were doubtless more complex than this in reality, but the outcome nevertheless remains the same.
- The work of NGOs in outlying districts is also responsible for urban sprawl. By helping the poorest individuals and providing them with various services in order to improve their living environment, they tie them to the most far-flung outskirts. The aid which is legitimately given to the poorest social groups considerably reduces the possibility of creating a compact city.
- The issue of means of subsistence imposes other constraints. When a housing development is designed

in a peripheral district, urban farming is a necessity and important, particular for individuals who are "under house arrest". It is worth providing such individuals with housing developments that are large enough for them to keep livestock and engage in farming.

- Climate raises another question. In wet climates, the size of the plots needs to be considered as the seepage of storm water into the ground is an important issue.

In view of these questions, we need to ask ourselves the following question: why create dense urban areas in the sub-Saharan Africa of today? The pressure to create density, which may provide a solution in the cities of the North, is copied more or less successfully and often erroneously in the Cities of the Global South in general. Our starting point should not be the theoretical model of the sustainable city, but the situation in the place in question, both with regard to physical and climatic aspects and the practices of the people who live there. The creation of housing developments should take account of the population's lifestyle, the physical context and the way individuals live their daily lives, their travel practices and their strategies and tactics. The resulting city will be designed quite differently. In the context of the city of tomorrow which is sustainable and inclusive, the housing development will continue to be a basic element, but it is imperative to question it! ■

Jérôme CHENAL
jerome.chenal@epfl.ch

Chenal Jérôme (2014), *The West-African City. Urban space and models of urban planning*. Lausanne : EPFL Press, London : Routledge

Land-use change: stakeholders and practices

The example of Indian cities

The urban transition is in full swing in developing and emerging countries. Nevertheless, urban demographic growth is slowing. It is tending to move towards the average rate for all countries as residential migration into cities stabilises. Cities are nevertheless continuing to grow and change. Eric DENIS, a Senior CNRS Researcher at the "Géographie-cités" Laboratory, describes the situation as it affects Indian cities.

In India, migration from rural areas was responsible for 22% of urban growth between 2001 and 2011. The annual demographic growth of urban areas was 1.8% in 2011, compared to 3.9 in 1981. However, urban areas are still expanding markedly. Between 2000 and 2030, the surface area of the cities of developing countries is due to increase by a factor of 2.5. In India, each year, 2,740 km² of land is converted to urban use. The rapid expansion of urban peripheries in the countries of the South is due to the stakeholders who are responsible the changes in land use.

The supply of cities has been revolutionised by the rapid growth in long supply chains which has also profoundly modified land values in urban peripheries. Falling profit margins increasingly encourage farmers to pre-empt other players by changing the use of their land themselves.

The increase in the number of stakeholders is a striking feature of these peripheral areas which provide the location for major projects: joint-venture factories, innovative services, transport infrastructure and logistics hubs, as well as high quality residential complexes. The private sector has become the driver of urban sprawl. Investment is concentrated in the outskirts of urban areas that have become more attractive than the city centres which are congested and where what little available land there is in small isolated lots. In these peripheral zones, the public authorities adopt policies that set out to develop their property assets by privatising them or selling public property or protected natural areas such as reservoirs, state-owned forests or coastal zones.

In this speculative environment, all the peripheral zones of Indian cities are affected by a rush to sell. The rise in land prices means the local authorities are no longer in control of the area they govern. In addition to housing and production activities, the dynamics of the peripheral zones produce vacant land that has been privatised and parcelled out with reference to financial criteria that have ousted all the vague intentions of planning.

The urban development that takes place in these areas tends to be the result of individual projects and there is a lack of an overall vision. It contributes to the creation of an urban periphery that consists of a patchwork of economic entities such as factories, gated communities, call centres, villages, squatter camps and rehousing settlements. All this takes place without any overall coordination which makes it impossible to foresee what infrastructure will be necessary.

Regional governments have emerged as the most powerful initiators of these transformations which are beyond the control of the local authorities.

Jobs are created far from the centres in the peripheral zones where manufacturers find conditions that are conducive to production at a competitive cost. Competition between cities takes place on the basis of property prices. As India's cities become integrated within the global economy their property prices fall into line with the competitive system to which the urban peripheries of emerging countries all belong.

In these areas, building on previously undeveloped land continues in an unrestricted manner within a legal framework which is constantly being negotiated. At the same time, the public authorities are also recreating areas with high land values by setting aside new recreational and environmentally protected zones.

Planning in the peripheries of Indian cities therefore consists of bringing together and re-connecting pockets of urban development each of which has its own rules and laws and managing this reorganisation in a context where there are major social contradictions. The juxtaposition of contrasting districts is without doubt a specific feature of the current fabric of Indian cities.

Eric DENIS
eric.denis@parisgeo.cnrs.fr

What structure for the urban peripheries of the Cities of the Global South?

The Lyon Urban Planning Agency, which acts as a cooperation player on behalf of its partners, in particular the Metropolitan Area of Lyon, is faced by this question in many of the African and Asian cities it works with: Bamako, Ouagadougou, Addis-Abeba, Rabat, Sétif, Ho Chi Minh City, Vientiane, Kochi, etc. Patrice BERGER, the Agency's Director of International Activities, draws lessons from its varied experience in the area of structuring the urban peripheries of the Cities of the Global South.

The topic is not a new one. For decades in some cases, the Cities of the Global South have been experiencing annual demographic growth of between 3% and 7% which has led to the explosion of their urban peripheries, sometimes in a completely uncontrolled way.

Some time ago, the AdP-Villes en Développement member Michel Arnaud, made recommendations concerning "developments without services", which contained practical solutions which are still valid. The principles involved have occasionally been applied in specific cases in a few cities in West Africa and Morocco, but they have never been implemented on a large scale. More recently, the Boston-based Lincoln Institute of Land Policy has cast doubt on the validity of the "compact city" concept for rapidly growing cities and also advocated the principle of a large urban framework without services.

What is new, in addition to increased concern about environmental issues, is the gradual development of large scale public transport in the major Cities of the Global South which provides a spatial framework for the frequently disorganised growth in the peripheries: the spread of

services as and when land becomes available, increase in density along the historical exit roads which carry all types of traffic (heavy vehicle, through and local), the gradual filling and elimination of gaps. Ultimately, these peripheral areas consist of a patchwork in which unplanned urban zones are juxtaposed with planned areas.

The Lyon Agency's experience in many Cities of the Global South has led it to propose a few simple principles, which concur with Michel Arnaud's proposals:

- **The public authorities must provide the basic structure**, the urban framework and the road network and leave other stakeholders and civil society to install pieces of urban fabric on this whose varied nature will limit segregation in peripheral zones.

- **Be willing to design the city's layout before installing** services so as to be able to cater for future land use of all types, which means setting aside the right of way for the main roads with public transport and providing housing developments without services which will gradually be equipped over a period of time. It is not possible for the peripheral urban area to deliver

à mettre à jour

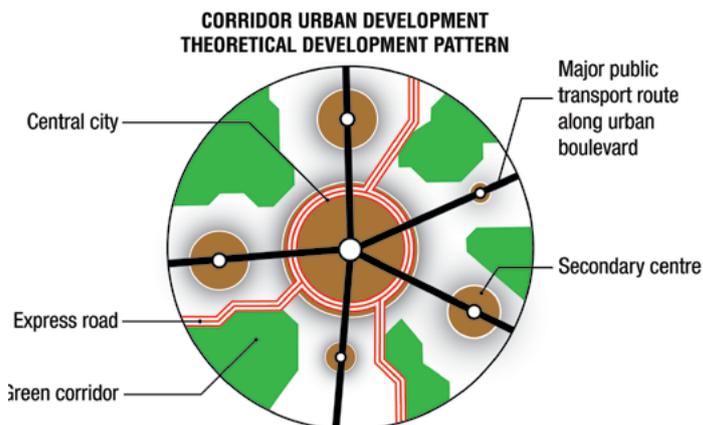
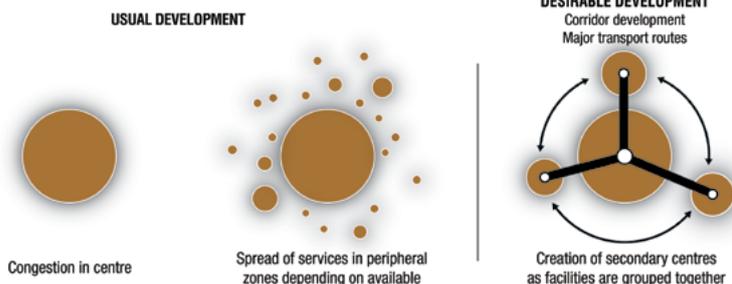


Photo credit : Patrice Berger

essential services for all immediately, because of a lack of financial resources and, above all, solvency. Some municipalities in the Cities of the Global South have no desire to see the creation of unplanned urban areas and aim for a “normative utopia” where essential services and housing are available to all.

- **Keep things simple**, adopt expansion plans that are easily understood, with a straight line grid when the geography allows, which does not prevent successful design of the urban space.
- **It is illusory to want to plan everything** and design these peripheral zones in detail, as we know from experience that this is impossible. We must make do with creating a framework for gradual future development, with however the possibility of more detailed planning for strategic sites.

Structuring the peripheral areas of the Cities of the Global South requires the specification and creation of three major components:

- 1 – A green zone that will not be urbanised** (ideally this should consist of green corridors that alternate with urban corridors), based on the natural geography that will serve to limit natural hazards, be of high environmental value and meet present and future recreational needs (urban and regional parks). Creation of such areas requires their total protection against urbanisation, if necessary by temporary forms of land occupation, for example urban agriculture or plantation forestry.
- 2 – Zones to be urbanised**, taking the form of corridors along which the density is to be increased and which carry the major public transport services (metro, tramway, bus lanes). These often follow the historical exit roads which have been transformed into urban avenues with slow-moving traffic. Heavy vehicles and fast traffic are channelled onto expressways which are connected to the ring roads and located on the edge of the urban fabric to avoid severance. In order to create these corridors, planners, road managers and public transport owners must work closely together to protect the land that will be needed to construct this infrastructure.
- 3 – The creation of secondary centres** that must be located on the urban corridors, near intersections and at public transport hubs, in order to create a

polycentric city. These centres should provide the residents of peripheral zones with local facilities (markets, shopping centres, bus stations, etc.) so they do not need to travel into the centre and increase congestion.

The creation of these three major structural components is obviously not straightforward and will vary according to the situation in each city. But to ensure success, the following requirements must be met:

The existence of straightforward planning: a good spatial structure plan that everyone understands is a must. A simple vision is often more useful than a very detailed master plan.

A firm, and above all continuous, policy commitment to follow the vision that is shared by the major urban stakeholders and all the affected local authorities (central cities and peripheral municipalities) and the existence of an urban planning agency or its equivalent to ensure it is implemented.

Genuine cooperation between planners and urban transport managers.

Failure can occur for various reasons: absence of an authoritative structure plan, non-integrated development of major public transport services, inability to bring about urban planning operations in peripheral secondary centres, a lack of continuity due to the high turnover of decision-makers and technical staff.

The structure that is given to the Cities of the Global South (large or small), which already contain most of the world’s urban dwellers, and are set to house an even greater proportion in the future, determines not only the quality of life they afford but also their economic efficiency.

The difficulty of the exercise requires us to be humble and target what is essential: foreseeing future difficulties and helping the authorities mark out the urban framework (setting aside the necessary land), in particular the road system and public spaces which will remain whatever changes affect urban form in the future. ■

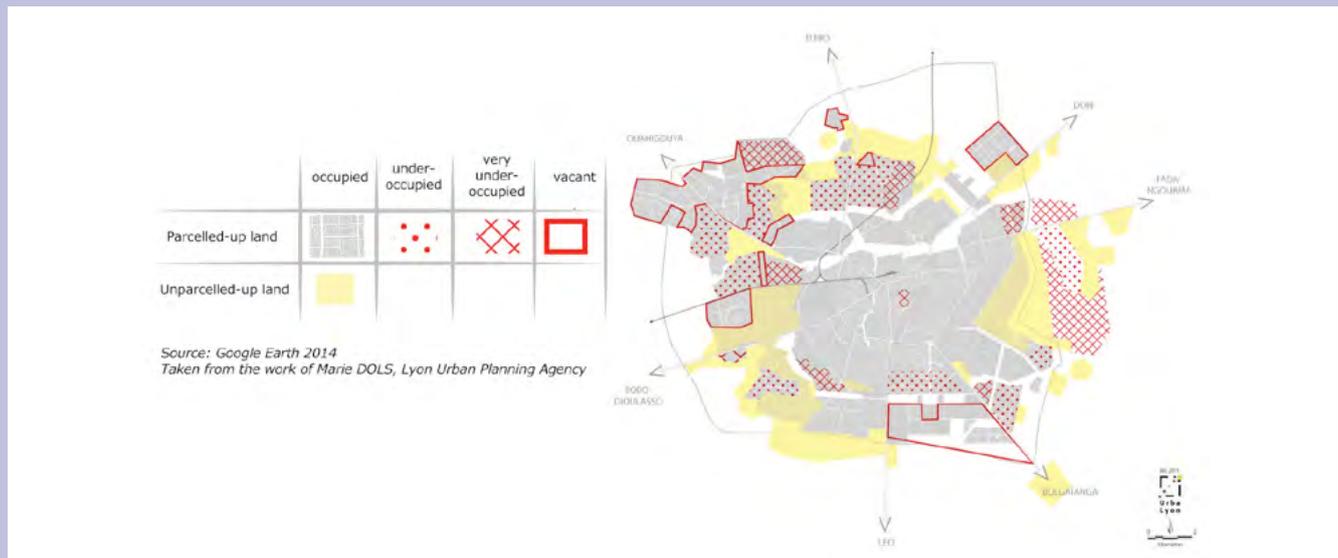
Patrice BERGER
p.berger@urbalyon.org

References:

- Note by Michel Arnaud for the AdP-Villes en Développement Seminar on 18 September 2015
- Shlomo Angel, Lincoln Institute of Land Policy: “Making room for a planet of cities”, 2012

Mapping and measuring cities, a preparatory step prior to urban planning: the example of Ouagadougou

The population of Ouagadougou (Burkina Faso) has passed the 2 million mark and is expected to reach 3.2 million in 2025. This demographic explosion is leading to an even greater increase in the city's surface area. In order to provide the new population with the basic services they need it is vital to be able to see how the size of the urban area is changing and display it on a map. In what follows, Marie Dols, an urban planner working at the Lyon Urban Planning Agency, describes the methodology applied to achieve this.



Re-examining the official background map to gain a more accurate idea of the situation

The first difficulty is that the only available background map for Ouagadougou is that which was used to verify the subdivision plan. It in no way reflects the real situation. The disparities between the official map and reality are the result of two well-known phenomena that are to do with African land delivery systems. First, the city is surrounded by a wide ring made up of informal housing zones that result from the neo-customary system. This is not shown on any plan. Second, there is the opposite situation in which many spaces that are shown on the plan as built on are in fact under-occupied or even completely vacant.

The disparities between the background map and the actual situation can be clearly seen on the 2014 Google Earth aerial photograph. These differences involve half the surface area and almost the totality of the peripheral zones. Based on this analysis, we are able to make a more accurate estimate of the overall urban density. It is very low in Ouagadougou, on average 50 persons per hectare.

Using realistic estimates to gauge future needs

If the level of density remains constant, demographic estimates show that the urbanised zone will have a surface area of over 700km² in 2025 (compared with 400km² today), or in other terms would correspond to a circle with a radius of 15 km around the centre (compared with 10km today).

The network of asphalt roads is confined to the city centre, which gives some idea of the enormous infrastructure requirement that exists today and that will be even greater tomorrow.

New sources of information (Google Earth, OpenStreetMap and GPS) can provide us with a better understanding of the spatial expansion process in the case of an African city. They are of particular value when they are used to gain precise knowledge about the real urban footprint and objectively measure the overall need for services in a city like Ouagadougou.

In view of the extremely low public investment capacities, a "realistic map" is a valuable decision-making tool for setting priorities. It makes it possible to schedule the construction of new infrastructure as efficiently and equitably as possible and to look 20-30 years ahead in order to consider how to organise tomorrow's urban spaces. ■

Marie DOLS
M.Dols@urbalyon.org

The stakeholders involved in structuring Mexico City's poor peripheral districts

To understand the changes taking place in Mexico City's poor peripheral districts we need to examine the stakeholders responsible for "structuring" them. Jean-François VALETTE, a geographer at the CNRS (the PRODIG laboratory), has studied the transformation of these districts. In this article he sets out some of his conclusions.

The use of the word "structuring" could give the impression that there was no structure at the outset and that one has been introduced gradually. However, even in the case of illegal land occupation there are strong underlying land tenure structures. It may therefore be more appropriate to consider the regularisation in the broad sense of the "popular colonies" (*colonias populares*), which are poor districts produced by the informal sector. Mexico City is a metropolis with more than 20 million inhabitants, and in 2010 these poor districts were home to two-thirds of its population. They are also the location of more than half the new housing that has been built in the last decade. The residents belong mainly, but not exclusively, to poor social groups.

"Land regularisation" is part of a long-term process of improving the initial conditions of occupation and is gradually conferring legality on the districts in question. Land regularisation involves consolidating the popular colonies, which have also been the subject of a considerable body of research in Mexico City, starting with that by John Turner in the 1960s. There is an abundant literature on the topic¹, particularly in relation to the conceptualisation – by applying a three-fold legal, morphological and social interpretation – of the transition from illegality to legality. This transition involves the process by which residents who are in an illegal situation enter into a dynamic of improvement, which will ultimately provide their environment with a legal status with all the benefits (and disbenefits) that go with this recognition. The State puts in place a derogation system in order to bring residents and property within the legal sphere. This requires land titling, but also a change in land use as a result of the arrival of urban services, which amounts to the regularization of the zones in question with respect to the legal framework and normal standards of living.

In the case of property, non-compliance may be the result of the absence of title deeds or proof of transactions (or caused by problems affecting such proofs), the failure to comply with urban standards or construction norms, or previous situations, which were already irregular. Another possibility is a return to irregularity in the case of situations, which had previously been regularised. Regularisation is a question of compliance with legal measures. Legality establishes the exclusive right to use one's land, to derive income from it and to sell it. However, in Mexico the land ownership regime may be social, private or public. Social property (on communal farms (*ejido*) or *comunidad*), which is the

dominant mode in the periphery of Mexico City, is collective ownership resulting from the agrarian reform carried out after the 1910 revolution and detailed in Article 27 of the Constitution. In theory such land can neither be sold nor transferred.



The fact that illegal urbanisation has existed for so long and the lack of simple, clear legal alternatives means, as in many countries of the South, that the informal urban housing market has become the socially and politically accepted norm. In Mexico, resettlement and eviction are regulated by the Constitution. The way legal texts are interpreted makes it possible to appropriate an area of land on the basis of the duration of residence, which opens the way for public registration of occupancy – a state of affairs becomes recognised. The State cannot be accused of being passive and tolerant with regard to illegal urbanisation. On the contrary, it plays an active role in its regularisation, and also its reproduction, as a result of its inability to provide a viable alternative. Furthermore, today it is apparent that the huge legal "social" housing estates that were built legally in peripheral zones of Mexican cities to combat the housing crisis are still unable to meet the needs of a large proportion of the population.

Land regularisation policies have been undergoing a process of institutionalisation since the 1940s. They were originally conceived as being exceptional operations on the part of the government but then became the principal means of managing the urban space. Starting in the 1970s, the Federal States have set up a number of bodies, one of the main ones being the CORETT (Commission for the Regularisation of Land Tenure) that was founded in 1973 and replaced in

1. In this context one thinks of the work of Alegría and Ordoñez, Azuela, Connolly, Coulomb, Duhau, Hiernaux and Lindón, Huamán, Iracheta, Salazar, Scheingart, and Tomas or the studies published by the Lincoln Institute.

2015 by the INSUS (National Institute for Sustainable Land). In 1992, reform of Article 27 of the Constitution marked a turning point: it became officially possible to transform social property into private property as a result of the PROCEDE (Program for the Certification of Ejido Land Rights and the Titling of Urban House Plots). This process was conditional on four factors: government action, land ownership status, administrative location, and socio-economic level of the inhabitants. But for the other aspects of regularisation, the decisive role was played by the dynamic of social organisation.

The term "social organisation" refers to any grouping or body of residents that lobby for works to improve a district. They may consist of associations of neighbours, groupings of residents, or more institutional entities. Collective action tends to have more impact on the authorities and can facilitate demands in three areas: the provision of basic urban services, changes in land use, and titling. The operation depends on clientelism: the organisation resolves an irregular si-

uation for the community, but imposes political and/or financial conditions (payments, participation in events, etc.). The rate and consistency of progress with regard to regularisation depends on the local leader's personality and networks, as well as the political mobilisation of the group. The social organisation and the pressure exerted by residents are quite enough to explain the different progress that is made as regards consolidation and regularisation in districts that are of similar ages.

The Mexican government sees regularisation as a means of achieving two main goals: on one hand bringing about social harmony by solving ownership conflicts and making it possible for the poorest social groups to access housing and on the other gaining control over residents who are in an irregular position by gaining the loyalty of voters, who have been transformed into tax payers. ■

Jean-François VALETTE
jean-francois.valette@ird.fr

Urban utility companies – consolidators of the city: — the example of Lima

More than half of the 10 million inhabitants of Lima (Peru) live in districts that were initially informal. In spite of the lack of a plan or urban planning, electricity, water and drainage services have been effectively extended into peripheral zones. Under what conditions and with what impacts have the networks been extended into these areas, and how has this affected the making of the city as a whole? Laure CRIQUI, a researcher at IDDRI whose doctoral thesis dealt with this issue, describes the process below.

Public policies and peripheral areas in Lima

Since the 1950s, Lima has been growing in the area between the Cordillera and the Pacific Ocean. In spite of its difficult topography, land ownership conflicts have been avoided due to the fact that the land consists of desert and is under state-ownership. Invasions by highly organised immigrants have been assisted by local NGOs. Preliminary parcelling out according to a regular urban grid and auto-construction thus inspired Turner's work on self-help housing. The State has implemented a physical and legal clean-up in these districts followed by the formalisation of property inspired by the work of the Peruvian economist de Soto. Recognition of the peripheral zones is thus the outcome of working class zeal on the part of the State combined with unorthodox urban policies.

Since the 1990s, electricity, water and sanitation networks gradually caught up with urban growth. Electricity distribution was privatised in 1992 and thanks to regulatory changes and public subsidies the firms were able to cover the entire conurbation. Lima's water and sanitation company was reformed but remained in public ownership. Specific donor-funded programmes allowed it to achieve coverage of 93.4% and 91.7% respectively.

There are therefore few political, institutional and financial obstacles standing in the way of the recognition of poor

districts and the need to connect them to services. Lima is an illegal city, but one where the extension of networks has brought about the social and spatial integration of peripheral districts. The mechanisms which govern this remedial process raise issues with regard to the forms of public action in the absence of urban planning.

Adapting policies as regards the provision of services

In unplanned districts, the deployment of infrastructure is constrained by physical irregularities and social and political disparities. In order to cope with the hilly topography and the disordered urban morphology, Lima's service companies have modified their methods. For example, to install electricity in districts which cannot be accessed by trucks or machines, the electricity companies use fibreglass poles weighing only 50kg that can be carried on a man's back. Adopting a similar approach, a World Bank programme has experimented with the use of water and sanitation networks that serve individual apartment blocks (narrower pipes that are light and flexible and laid nearer the surface) which negotiate the irregular grids easily. In both sectors, the engineers are quite certain that there is no technical obstacle they cannot overcome.

At the social level, the problem for the companies is to gain acceptance for their activities among the residents, and to be certain of being paid for the services. In the last

20 years, social assistance has become organised and widespread in Lima, involving the residents. In the case of water and electricity, independent mini-networks have thus been temporarily put in the hands of neighbourhood associations which are responsible, under a collective agreement, for the equipment and managing billing. In addition, corporate social responsibility programmes, which favour local residents when recruiting workers or that provide hygiene lessons, help to smooth relations between the companies and residents.

The peripheral areas that need connection to networks are both irregular institutionally or informal. As a result of the bottleneck with regard to the extension of services produced by the formalisation policy, a law was passed in 2006 that replaced the requirement for a title deed by a municipal ownership certificate. But the companies also need geographical information in order to design network layouts. The residents therefore have to provide a plan of their neighbourhood, showing the grid and the plots. This plan is produced by a topographer from the private sector whose legal status is uncertain. In spite of this it has become a genuine institution. Not only is it used to position infrastructure but residents also rely on it when asking third parties to perform other works such as the construction of stairs or retaining walls. These plans, which are the outcome of institutional improvisation, have de facto become maps that are used to bring about the gradual consolidation and planning of peripheral districts and hence the city.

Impact of the measures on the urban fabric

Extending service networks thus structures peripheral areas physically, socially and institutionally. The provision of services proves to be an effective means of fostering local urban development, but it also has a more general impact on public action in the peripheral zones in question.

At neighbourhood level, the deployment of infrastructure helps bring about urban consolidation: the positioning of networks physically anchors the road grid for all time, irrespective of the fact that it requires or leads to other roadworks. Furthermore, by obtaining a certificate of ownership, by creating neighbourhood plans, by being billed for services and by appearing on company maps, the peripheral districts indirectly obtain official recognition. The service companies therefore play a role not only in the physical and functional integration but also in the political, administrative, social and symbolic integration of the urban peripheries.

In terms of governance, the extension of the networks also brings in a plethora of other players. NGOs assist



A water tanker and the commissioning of the electrical power line in the distant outskirts of Lima, May 2012

Photo credit : Laure Criqui

the public in their interactions with the authorities, topographers create plans, construction and engineering companies test new methods, shops sell sanitary equipment, foundations finance associated improvement works, etc. In this case all these activities and players are coordinated by the neighbourhood plan

Last, for the companies, the peripheral zones represent new markets to connect. In order to follow, and even anticipate, urban development and be able to connect residents as soon as they arrive, they install their networks on the edges of the built-up area. This process of de facto expansion takes place without the involvement of the public authorities, and may even create tensions between the urban planner and the municipalities. The latter want to restrict expansion, but their administrative boundaries do not match the companies' operational concession areas. On the ground, sector-based approaches still hold sway over the political and urban planning spheres.

The peripheral zones of Lima are a product of the combined action of service companies, residents and the other makers of the city. This improvised way of creating urban space makes it possible to little by little achieve the lasting integration of peripheral zones. The real challenge today is whether, and in what way, the public authorities are willing to follow this process and assist the real dynamics of urbanisation rather than trying vainly to resist them. ■

Laure CRIQUI
criqui.laure@gmail.com

Références

- Calderón JC. 2005. *La ciudad ilegal: Lima en el siglo XX*. Lima: Universidad San Marcos
- Criqui L. 2015. Les voies de l'extension de réseaux de services essentiels dans les quartiers irréguliers de Lima. *Revue Tiers Monde* 221
- 2015. L'électrification des quartiers irréguliers de Lima: Un rattrapage en pente raide. *Flux* 99
- Fernández-Maldonado AM. 2008. Expanding networks for the urban poor: Water and telecommunications in Lima. *Geoforum* 39
- Ioris AAR. 2012. The neoliberalization of water in Lima. *Political Geography* 31
- Matos Mar J. 2012. *Perú: Estado desbordado y sociedad nacional emergente*. Lima: Universidad R. Palma

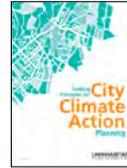
Publications



Assessing the Institutional Environment of Local Governments in Africa, Cities Alliance and UCLG, 2015 <http://www.citiesalliance.org/node/5607>
UCLG Africa and Cities Alliance have published their second report on the institutional environment of African local governments. Three years after the first assessment, African governments have made considerable progress as regards fostering development and capacity building in the continent's cities.

Guiding Principles for City Climate Action Planning, United Nations Human Settlements Programme (UN Habitat), 2015 <http://unhabitat.org/books/guiding-principles-for-climate-city-planning-action/>

This guide, published by UN-Habitat, provides planning recommendations with a view to reducing greenhouse gas emissions and enhancing resilience to climate change.



Villes et territoires résilients, Commissariat général au développement durable, 2015, N°123 <http://www.developpement-durable.gouv.fr/IMG/pdf/ED123.pdf>

Improving the resilience of areas constitutes an adaptive response to the risks arising from climate change. This publication suggests a number of ways of implementing local resilience strategies.

Éco-Urbanisme défis planétaires, solutions urbaines, Jean Haëntjens et Stéphanie Lemoine, éditions Écosociété, 2015 <http://ecosociete.org/livres/la-cle-des-villes>

Eco-urbanism is a cross-cutting approach intended to enable cities to take up the economic, social and environmental challenges facing them today. This volume gives many examples taken from cities from all over the world.

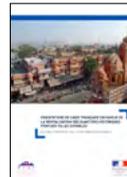


Habitat en mouvement, Voyage à la rencontre de l'habitat populaire en Amérique du Sud, Pierre Arnold et Charlene Lemarié, 2015 <http://habitatenuvement.tumblr.com/livre>

This book presents accounts of a large number of encounters concerned with self-managed house building programmes in poor districts in South American and presents some lessons to be drawn for the cities of developed countries.

French Guidelines on the Revitalization of historic neighbourhoods for Sustainable Cities, Culture and heritage as the cornerstone for Sustainable Cities, The French Alliance for Cities and Territorial Development, (PFVT) available in French, English and Spanish <http://www.pfvt.fr/fr/activites/groupe-de-travail>

Drawn up by the French Alliance for Cities and Territorial Development (PFVT) this report is based on France's considerable experience in this area and backed up by many examples. It outlines a number of strategies and approaches for revitalising historical districts in the Cities of the Global South.



Agenda

- **Timeline Habitat III**, 17-20 October 2016, Quito, Ecuador.
- **Europe Regional Meeting**, 16-18 March 2016, Prague, Czech Republic. [LIEN](#)
- **Thematic Meeting, Financing Urban Development: The Millennium Challenge** 9-11 March 2016, Mexico City, Mexico [LIEN](#)
- **Thematic Meeting, Public Spaces**, 4-5 April 2016, Barcelona, Spain [LIEN](#)
- **Third session of the Preparatory Committee for Habitat III, PrepCom3**, 25-27 July 2016, Surabaya, Indonesia [LIEN](#)
- **7th Forum on international action on the part of local government 2016**, organised by Cities United France (CUF), 4-5 July 2016, Paris [LIEN](#)
- **49th Conference of the Network for Housing and the French-speaking community" (RHF)**, on the topic "Social housing in the light of the UN-Habitat III Conference: What outlook for French-speaking countries?", 30 May-1st June 2016, Ile de La Réunion [LIEN](#)



Villes en développement
Association de professionnels

This edition of *Villes en développement* was published with the support of the the Agence française de développement (AFD), CEREMA, Cities Alliance, the KERAN Groupe and The French Alliance for Cities and Territorial Development (PFVT)

Publication Director

Benjamin Michelon

President of *AdP-Villes en Développement*

Chief editors

Marcel Belliot et Aurélie Landon
AdP-Villes en Développement

Editorial Committee

Serge Allou, Pierre-Arnaud Barthel, Ferdinand, Boutet, Armelle Choplin, Xavier Crépin, Franck Charmaison, Yves Dauge, Francine Gibaud, Camille Le Jean, Benjamin Michelon, François Noisette, Françoise Reynaud, Julie Salagnac-Diop, Irène Salenson.

Editorial Secretariat

Eloïse Pelaud

AdP-Villes en Développement

Translator

Kevin Riley

Formatting

3ème Acte /Alexandre Pison

This Bulletin is online on
AdP-Villes en développement web site
www.ville-developpement.org