



CNE's Growth Commission  
housing + land initiative

## **Land Tenure and Informal Settlements: International Experiences and Lessons for Puerto Rico**

The following document summarizes the presentations and discussions that transpired during the half day conference. It was produced by Deepak Lamba-Nieves, Research Director of the Center for a New Economy (CNE). The statements are those of the rapporteur and do not necessarily reflect the views of any specific participant of the conference or the CNE.

### **Presentations on International Experiences**

- Annette M. Kim, Associate Professor, University of Southern California
- Enrique R. Silva, Director of International and Institute-Wide Initiatives Lincoln Institute of Land Policy

**Annette Kim**, Associate Professor and Director of the Spatial Analysis Lab  
Sol Price School of Public Policy, University of Southern California

Presentation title: "Planning Inclusive Cities"

Professor Kim began her remarks outlining the primary takeaways:

Community-based knowledge is crucial and needs to be incorporated into planning and policymaking exercises. As technologies and new planning tools advance—especially those that facilitate mapping and remote sensing exercises—there's a threat that marginalized communities will become invisible, exacerbating inequality. In this context, incorporating "ground knowledge" becomes an important and necessary task.

Professor Kim laid out some initial ideas to consider:

- Watch for unintended bias in the use of technology for land registry information.
- Alternative land tenure institutions can spur real estate market investment and development.

She went on to present three cases.

Case 1: Ho Chi Minh City & Satellite Imagery

Satellite imagery provides an important “first stab” at having a record of the recent situation on the ground. In some cases, it might be the only record of what happens on the ground. The data is commercially available, can provide comprehensive coverage, and technological advances have expedited image interpretation. These images offer great research and analysis potential, but there are also snags.

For example, clouds make it hard to perform accurate measurements. Also, distinct geographical features will look different in satellite imagery. There are different typologies and building materials, so there is a lot of variation in the satellite photos. Given these constraints, a tradeoff emerges between how detailed or precise you want to be in your analysis versus expediency.

In her presentation, Professor Kim showed different satellite photos of Ho Chi Minh City (HCMC) taken over time. Some parts of the images appear to be settlements—bright pixels seem to indicate the presence of concrete structures and urban developments. But given her years of fieldwork in HCMC, she knew that there are urban settlements that are not built in concrete, so they don’t look shiny in the satellite images or similar to the other developed areas. These key insights allowed her to determine which algorithms designed to classify built up areas from satellite imagery needed adjusting to account for the information gained through ground knowledge.

She then compared three different studies and maps produced of HCMC, including her own, that came up with three dissimilar results of how urban expansion was advancing using satellite imagery. Kim’s analysis, based on satellite data and fieldwork, showed that there were more informal settlements in areas near the river. Because she concentrated on detecting informal settlements in the periphery, she picked up more of those on her maps. Her analysis, in contrast to the other studies, allowed her to point out that informal settlements are often located in geographically vulnerable areas of HCMC—near the river and also closer to roads.

The fact that three research teams studying the same place at roughly the same time came up with different maps is an important finding with significant policy implications. Maps are the basis of future planning exercises because they allow us to determine who is there and needs our help. But if certain communities do not appear on the map, if they’re “missing,” they are easy to disregard and not invest in. More often than not, these “missing” communities are the most vulnerable.

Professor Kim argued that these mapping and analytical exercises are based on assumptions, and that the biases and limitations of researchers’ field knowledge are embedded into their algorithms.

Researchers from the three mapping projects had the opportunity to meet and discuss the differences in the maps they generated of HCMC. None of the teams had hidden agendas, but they did have institutional agendas. One team wanted to only show data for Vietnam based on prior exercises they had conducted of how urban sprawl was advancing in the United States. Another team was focused on measuring urban expansion, not in identifying key details.

Kim indicated that the differences in institutional agendas and interests underscore the dangers of “cutting and pasting” analytical methodologies, and of “parachuting” experts that conduct their

usual analyses wherever they go. As it becomes easier to access satellite imagery and automate the analyses, more research results are produced but, as the HCMC case indicates, it is often at the expense of creating more marginalization.

## Case 2: Land Transactions in Hanoi and HCMC

Her second case was also based on research conducted in Vietnam, focused on identifying what types of legal institutions are needed to support housing developments and real estate markets, looking at the first-generation real estate developers in Hanoi and HCMC.

In the early 2000s, Vietnam was ranked as the worst place to invest in real estate by global analysts. But during her field visits, Professor Kim saw a huge explosion in the real estate market. This inspired her to dig deeper into a key query: how does a vibrant real estate market emerge in such a risky place?

Professor Kim identified that to be able to engage in land transactions, you need arrangements or instruments that provide a sense of security. But in a place like Vietnam, where does it come from? Her analysis revealed that it did not come from a "magical" piece of paper like a property title, but from the social institutions that support that piece of paper and provide an understanding of what is happening on the ground.

As part of her research, Professor Kim collected and examined newspaper ads to determine what types of transactions were taking place. Some of the ads indicated "I have title," but others indicated, "I have legal papers." She went on to study how much more money you can ask for when you say you have title versus "legal papers."

She found different results between Hanoi and HCMC, despite the fact that both places were subject to the same law. The differences had to do with the local political economy.

Professor Kim's analysis indicated that the key about property is who enforces your rights. If you have an established court system, having a legal paper is enough. However in Vietnam they have stable property rights using alternative mechanisms. Stable politics in Vietnam, help people feel pretty secure where they are living. Also, their bureaucratic structure was such that they have government officers everywhere, similar to neighborhood police officers. These officers, given their widespread presence, knew everybody.

In this context, if you had a fee payment receipt or a building permit, it could become a "legal paper" once it is backed up by a local government officer and your neighbors. There was a level of security afforded by a local validation mechanism.

Furthermore, this was also the primary enforcement mechanism in HCMC. Due to a lack of enough judges, property lawyers, and a large backlog of cases, the formal legal route was not good for enforcement. The alternative mechanism provided a solution for dispute resolution and the vast majority of claims were taken care of at the neighborhood level. But in some cases, if you were not

happy with the result, property rights disputes could be elevated to the ward, district levels, and ultimately to the city courts.

How is title activated? It depends on the political economy. The irony is that HCMC was less law abiding than Hanoi, but norms and local government discretion in property rights fostered market transactions and investment into property.

The essentials for designing property rights regimes is to ask the following: Are they interacting with the livelihoods of people? Can they interact with existing enforcement institutions? Is it widespread and understood?

### Case 3: A Community Land Trust (CLT)— The Rolland Curtis Gardens Apartments in Los Angeles

In a very expensive urban area of Los Angeles, a CLT was set up. This is somewhat unusual since most CLTs are established in rural areas or in places with relatively low land values. What stood out for Kim, was that they kept all their original tenants in place, and they did so while buying the land from the property owner. This is a case where two different entities came together with different kinds of knowledge: a partnership between a professional, affordable housing developer and a community nonprofit organization.

The nonprofit organization conducted meetings in Spanish, and encouraged lots of participation, while the affordable housing developer knew the rules and mechanisms of how to navigate the larger development landscape. For example, the community organizers had to teach residents why more densities and less parking were necessary to make the project affordable. They also worked with the thorny issues surrounding racial segregation, given that it was a predominantly Latino neighborhood with a history of tensions with the African American community.

Professor Kim explained that this case demonstrates that you need both kinds of expertise: on the ground knowledge and larger institutional knowledge.

**Enrique Silva**, Director of International and Institute-Wide Initiatives  
Lincoln Institute of Land Policy

Silva began by explaining the mission of the Lincoln Institute of Land Policy (LILP), which he summed up as: improving the dialogue around land and land policies.

His talk focused on land regularization and the financing of land regularization. From the outset, he highlighted that at LILP a more pressing topic is the idea of the *suelo servido* or availability of serviced land—rather than the issue of land titling—and explained that there are sustainable and equitable ways of paying for it.

His talk focused on Latin America, where cities are highly unequal and insecure, especially with regards to land tenure. According to Silva, land insecurity in Latin America, more than anything else, is the result of the inequalities in the costs and benefits of urbanization.

Silva went on to explain a very common problem in Latin American cities. In certain sectors, landowners want to maximize the use of land, building vertically and thus densifying parts of the city. That increased density comes at a cost, in terms of traffic congestion, pressures on basic infrastructure and the like. When developers densify, they reap increased rents. But other parts of the city are not able to reap the same rewards, yet have to carry the burdens associated with higher densities. Thus, it's important to decipher how costs and benefits are distributed, and also who wins and who loses.

For LILP, the crux of this issue lies in public investment.

Silva went on to discuss the roots of informality, which cannot be interpreted just as a manifestation of poverty. More often than not, informality in Latin American cities is caused by the lack of serviced land (with access to water, electric and other infrastructures) that is affordable and adequately located.

Informality tends to arise when land that low-income people can effectively rent or locate their homes in is not available. When that happens, those in need go wherever they can. If there is no serviced land available, affordable housing is lacking because there is no place to build it. Thus, a vicious cycle emerges. Silva remarked that informality is also caused by planning regimes, which historically speaking have been exclusionary. It is also tied to multiple institutional weaknesses with regards to land practices and land markets.

Silva proceeded to highlight some positive examples being documented by the LILP, primarily in Colombia and Brazil:

Most are cases where city and national governments recognize existing inequalities and are trying to remedy them. They are tackling these problems from pragmatic, political and ethical vantage points. More often than not, they begin to think and act creatively because they need the fiscal resources to develop new projects, and because they have realized that titling programs don't necessarily lead to socioeconomic improvements or increased fairness.

Numerous innovations are being observed at the local level because governments are slowly realizing that they are leaving "money on the table" (not reaping the full rewards) in the urbanization process.

Research conducted over time by LILP shows that increases in land values are driven by actions taken at the local level. For example, converting land from rural to urban can lead to a price increase (per square meter) of 400%. Preparing the land so that it can be built on, increases values by 80%, and changes in zoning can increase land values by 100%. These increases can be thought of as a "surplus value" made possible by state and local investments, which can be reaped by public

authorities and used to improve living conditions for residents of particular areas or the community at large.

Silva went on to pose a key question: why is it important to reap surplus land values?

Land is an economic resource scantily taken advantage of by local governments. Investments made to generate serviced land, can lead to increased values that can, in turn, be reaped to make investments that improve equity in cities and communities. It's also an efficient practice.

The capture of surplus values by local governments is not about taking rights away from property owners. It's about recognizing that the right to build is a public good that is given to a person who owns property.

The idea of capturing surplus is not new, and there are numerous examples across Latin America. Silva focused on Sao Paulo, a city that is using building rights to generate the needed resources to finance urban expansion, including generating new opportunities for informal communities.

In the 1970s, paulistas began to hold exchanges with European cities to discuss charges to property developers for construction rights, given the city's dire fiscal situation. From those initial exchanges and experiences, the "suelo creado" or "value capture" concept was born. The basic idea is the following: you can have property and use it. But the right to build, to densify or increase land uses belongs to the public sector, because it looks out for the common good. It is an idea that recognizes the impact that the private sector can have over the rest of the populace. It also considers that master plans, which zoned specific areas in the city, had built-in inequities since they provided more rent generating opportunities to some and not others, especially in areas where higher densities were allowed. Thus, the "value capture" concept also served as a way to correct those inequities.

In Sao Paulo, a baseline coefficient was established. Everyone has the right to build one floor. If you wanted to build higher, you needed to pay a fee. Those fee payments helped create a special fund that allowed the city to invest in local improvements, and in other areas and projects.

The Sao Paulo government also developed a unique financing mechanism. They created an instrument known as CEPACs —or certificates for additional construction potential—that allowed them to auction off the construction rights through the Sao Paulo stock exchange. This innovation allows the market to establish the cost of the right to build beyond the basic coefficient. The funds raised from the sale of these construction rights was then used to finance infrastructure improvements in the city. As Silva explained, the results have been incredible.

With the sale of the CEPACs, the city was able to allow for higher densities, build new infrastructure, like the Octavio Frias Oliveira bridge, and also finance the construction of new housing complexes for informal communities in the same places where they were located.

There are also various challenges. Some of these include: ignorance regarding how land markets work, ideological issues, government and bureaucratic inertia, and particular interests who stand to benefit from the status quo. Silva made clear that this is not a silver bullet, but it's a key tool. It's also

a complement to a well-designed property tax regime. There are also legal considerations, given certain debates that have surfaced regarding whether “value capture” regimes can be considered takings.

Silva closed his intervention by highlighting the work that LILP is carrying out in Puerto Rico with the Caño Martín Peña Community Land Trust and the knowledge exchanges they are encouraging.

### **Responses from Local Experts**

- Lyvia Rodríguez, Executive Director, Proyecto ENLACE del Caño Martín Peña
- María Hernández, Adjunct Professor, University of Puerto Rico Law School Legal Clinic
- Edwin Quiles, Retired Professor of Architecture and Principal of the *Taller de Arquitectura y Urbanismo Comunitario*

**Lyvia Rodríguez**, Executive Director  
Proyecto ENLACE del Caño Martín Peña

During her intervention, Rodríguez raised some key issues based on her experience with the Caño Martín Peña Community Land Trust.

She began by summarizing some of the main points raised by Kim and Silva, such as:

- Land titling versus providing “serviced land”
- Citizen participation and generating knowledge at the ground level
- Wealth redistribution and land values

As Rodríguez explained, after the Hurricane María a popular discourse emerged, especially amongst policymakers, that equated the severity of damages with the existence of informal settlements and informal construction. This biased discourse ignored the fact that many units constructed with formal permits or in “regular” settlements also suffered significant damages, especially in coastal areas.

This discourse has led to a particular typology of informality in Puerto Rico:

- Buildings or settlements that were built without permits, self-built or without the assistance of licensed engineers and architects.
- Structures situated in high risk areas
- The condition of living in housing where people don’t have clear land titles.

The titling issue gained prominence as a result of the high percentage of FEMA Individual Assistance denials. These were due, in large part, to the fact that many residents could not produce a title and claim ownership of their property. This occurred despite the fact that Puerto

Rico's legal framework clearly separates the right to hold and use property from having a property title.

The informality discourse was also used to equate informality with illegality. In this context, government officials warned that "*se acabó el ay bendito*" [the pity party is over] for those living in informal units or settlements. These same arguments have been raised in discussions regarding the use of recovery funds and the issue of relocations.

Rodríguez highlighted the fact that Puerto Rico is an unequal country and that inequality is clearly manifested in space. And if we don't recognize these inequalities, we will inevitably adopt policies that privilege only those who live in "formal" spaces.

The hurricanes revealed the vulnerabilities created by our development model. This is important to point out because planning processes ignore those vulnerabilities. Moreover, we are observing how numerous planning processes are unfolding. The Fiscal Oversight and Management Board has prepared a fiscal plan, we have also prepared several plans mandated by federal authorities for recovery purposes, and are in the midst of updating and devising municipal-level mitigation plans. All of these are being overlaid on top of an already existing planning framework. But all these plans seem to be divorced from each other, and they're not anchored in the local knowledge and community participation highlighted by Professor Kim.

These different visions are advancing the notion that housing is a commodity and not a right.

On the topic of land tenure, following up on the point raised by Silva—that the most important thing is not tenure but serviced land—Rodríguez was reminded of the process that the people of el Caño Martín Peña went through, several years back when land was taken from them by local authorities who wanted to unravel the CLT and prompt an individual titling exercise. In the midst of this process, a community resident remarked: "The individual title that they're offering me doesn't bring with it a plan [like the CLT]. It does not address infrastructure needs and economic and equity problems that the community faces." Thus, the primary concern of the residents was not having a piece of paper that proved ownership, but losing everything else that the CLT made possible.

In explaining the logic behind the establishment of the Caño Martín Peña CLT, Rodríguez remarked that the communities understood that they needed to solve the problem of land tenure but also recognized that they were located in coveted lands, which meant that an individual titling process would inevitably lead to displacement. Instead of providing individual titles, they sought to improve the community and the city, and identified an alternative. Instead of basing their solution on a market mentality, their approach was anchored in a community mentality that prioritized social cohesion.

After living through what market forces could do through gentrification, they analyzed different options, and through a community-wide consultation process, they decided to create a CLT. Land held formerly by the state would be in the hands of the community. The CLT took parcels of land away from the market, but also allowed the Trust to leverage certain parcels that could generate the



rents needed to carry out certain improvements in the community. These were funds that the state could not provide.

**María Hernández**, Adjunct Professor  
University of Puerto Rico Law School Legal Clinic

Hernández began her remarks by highlighting that the housing sector in Puerto Rico has been suffering for quite some time. This, despite the existence of laws and policies that have attempted to address the issue for decades.

She speaks from her experience as a professor at the University of Puerto Rico's law clinic.

Hernández argued that people value having a piece of paper, legal papers, but that doesn't inhibit them from trying out new things, and moving forward. She highlighted two cases.

The first one was Villa Esperanza, a community with 133 families in the Municipality of Toa Alta, where only 3-4 houses were left standing after Hurricane María. Hernández stated that Villa Esperanza is an example of people looking to solve their housing situation, without paying much attention to legal titles or construction permits. It is a community where the residents proceed from a clear-cut logic: "What is my priority? I need a place to live, so, I will build a house. The priority is to secure shelter for my family and myself."

The people of Villa Esperanza were faced with an eviction threat from the land they occupied. But with the help of the UPR Law Clinic, they arrived at an agreement with the Puerto Rico Land Authority, whereby they could occupy a piece of land formerly used for agricultural purposes. This is the first-ever agreement of its kind that the Land Authority has signed. They have a lease-to-own agreement for 28 "cuerdas" (roughly 27 acres). Interestingly, even though all the residents have very low incomes, they all pitch in \$2,000 yearly to a Land Authority account.

The second case focused on Las Cuevas, a community that identified unoccupied land and built a settlement in the year 2000. They proceeded to legally segregate the land and create a corporation, Vistas de Loíza, that allowed them to collectively purchase the land. But not much happened afterwards since the electric and water companies did not service their land.

The community approached the law clinic with a legal issue: their land was trapped in an inactive corporation that was not in good standing. Reviving the corporation is key, since the land was trapped in an inactive corporation and, moving forward, they'd like to decide whether to continue operating as a collective or proceeding with individual titles and owners. They are also exploring

whether through Community Development Block Grants or other funding mechanisms they are able to service the land with water and electricity.

Hernández pointed out that these are two great examples of courageous people making key decisions. She asked: how many of us are willing to enter and occupy land that is not ours, land that is idle, but doing so in a collective manner and with collective support?

With regards to land titling, Hernández remarked it can have some advantages, but when your priority is having a roof over your head, as the examples she presented demonstrated, papers don't matter that much.

**Edwin Quiles**, Retired Professor of Architecture  
and Principal of the *Taller de Arquitectura y Urbanismo Comunitario*

Quiles began his remarks by pointing out that great ideas to solve land and housing problems have been raised in Puerto Rico, but for many reasons they are seldom implemented. He also stated that the Blueprint conference was a great opportunity to discuss the need to document experiences that allow us to look toward the future in a different way.

The task at hand requires critical thinking, historical perspective, respect and imagination. It requires collective work that includes not just professionals, private capital and the government but also everyday people, who are the ones who suffer the most from past mistakes.

Building a new city and innovative kinds of housing requires having a foot in two worlds: in the main avenues, but also in the alleyways, and within the nooks in the heart of the city. It also requires a critical dialogue.

To find innovative solutions, Quiles suggested, we must also examine the efforts of informal communities, what they come up with. At times, they build with discarded materials, almost with nothing, but very creatively. Those experiences are an important point of departure. We mustn't romanticize them, but have some respect towards the diverse approaches taken since there are numerous models and kinds of housing. Furthermore, if we look at international examples, we can broaden our horizons of what is a community and what is housing.

Quiles identified three key issues that need to be considered when designing a housing policy:

1. Self-building as a contribution to the development of the city and local communities
2. The revitalization of communities as a strategy against gentrification
3. Development of new communities when they need to be relocated

On the first point, he highlighted that the popular discourse has demonized informality by saying: it's not good and they have no permits. But according to some estimates, 53% of our population lives in informal units. Leveraging informality has been a strategy for the poor in Puerto Rico: they

occupy land that doesn't belong to anyone, near swamps, and abandoned lots. Over time, their makeshift units become concrete houses.

Those who live in informal settlements, learn through tradition, intuition, and trial and error. But sometimes they lack technical and scientific knowledge that could help them complement their experience. Thus, professional guidance needs to be added to this local knowledge. Quiles suggested that training programs, and special credits for purchasing good building materials, amongst other solutions, could be developed and encouraged to adequately support self-building efforts.

On the second point, Quiles remarked that construction of housing needs to go hand in hand with the revitalization of communities, so that it becomes sustainable. And participation is fundamental in the design and production process.

He brought up the example of a project he was involved with in the Alto del Cabro community during the 1990s. It's a community that has constantly been under gentrification pressures due to its location near the well-off neighborhoods of Miramar and Condado in San Juan. Quiles explained that, at that time, the threat of displacement served to mobilize an already organized community, who would only proceed if resident participation was ensured.

The community evaluated several scenarios as they put together a proposal for "auto desarrollo" or self-development. They chose an approach focused on "development with conservation," which would allow them to develop mixed housing developments in well-situated lots and use the profits to improve other parts of the community.

Usually, gentrification arrives to a community like a bulldozer, but Quiles remarked that it doesn't have to be this way. The existing community can enter into a dialogue with new investors and neighbors. New people and developments can be incorporated through a dialogue with the community, but they must respect the experiences and the people who already inhabit that space.

On the third and last point, Quiles explained that there are communities that are extremely vulnerable and need to be relocated, but warned that there are also interests waiting in the wings to take advantage of the removals to propose new development opportunities. Thus, it is imperative that any effort to relocate, revitalize or develop with conservation, needs to start with a study of the place, or the community, so that any intervention is shaped by the history, architecture and the specific needs of that community. Ultimately, the main point is to strengthen communities. Producing housing is fundamental, but this task cannot be separated from the community where it is going to be built.

In Alto del Cabro, for instance, Quiles explained that they created a structure, an office, so that the self-employed could be contacted and recruited for jobs. It was a way to regenerate the community and find ways to build housing while supporting economic development.

Quiles ended by stating that housing provision needs to be understood as a learning and improvement process. "It's always verb, not a noun. It's always doing something."

## **Discussion and Q&A Sessions**

Raúl Santiago Bartolomei (RSB), who moderated the discussion session, raised several points to start off the discussion regarding the government of Puerto Rico's plan to reform the cadaster and rely on several other mapping exercises in the recovery process. A key concern was a perceived bias towards conceiving and executing these efforts as purely technological ventures.

María Hernández (MH) responded that the process needs to begin at the community level. If you don't involve the community, the mapping process will be incomplete. Finding out who lives where and where they're located requires community involvement.

Lyvia Rodríguez (LR) added that we need to begin by asking why these specific projects are being pursued, and what are the goals. The CDBG-DR Action Plan identifies that a GIS system will be used to map informal settlements. How they will use that tool will be important. With regards to land tenure, there are government systems and tools that don't necessarily reflect the reality on the ground. What appears as a parcel on one government platform may not coincide with another state map or with the ground level experience.

When we talk about maps, we have to acknowledge, as Professor Kim indicated, that they are political instruments. Whoever designs the methodology has an agenda of what they want to achieve.

Edwin Quiles (EQ) argued that maps should become quotidian instruments for use by communities, and not purely technical tools.

Annette Kim (AK) reiterated that maps are very political. She raised the example of flood maps, and how their boundaries can influence how we interpret the physical environment and what "flood prone" means. Water ebbs and flows, and yet flood maps draw hard boundaries. Furthermore, assuming a priori what the mitigation measures are can preclude from gathering the data for other possibilities.

RSB raised another point for discussion focused on non-traditional land tenure and transaction arrangements devised by communities and other entities. A massive titling effort, as is being discussed by the local government, may allow some form of standardization, but may also conflict with communities that strive for collective ownership, for example. Alternative forms of tenure require community organization and education, but what does the state need to learn so that different property arrangements can flourish?

MH explained that land trusts have clear structures and rules. Surface rights are real property rights. There is a clearly codified framework that explains what a person is using in terms of land.

LR explained that in the Caño Martín Peña communities, the titling process became an instrument. What the residents of El Caño wanted was not to be displaced, and individual titles would make that

easy. The issue of “title for what?” started driving the conversation. This is important because their CLT shouldn’t be copied as-is given that each context has its particularities. In their case, a particular process and specific structures were designed based on the residents’ needs.

EQ stated that one important consideration is that not all lots are regularly shaped, and not all neighborhoods have regular geometries. There is an order, even in places that seem disorganized, but one has to walk through the communities to decipher it.

ES remarked that it’s not just about consulting the community, but also identifying the guarantees needed by the community. Also, when there is innovation, there are risks. We have to identify what is the community participants’ tolerance for risk. With risks come conflicts, so we have to identify the ways in which conflicts are addressed. We need to define the spaces where these conflicts will be addressed and figured out. These are burdensome processes, but we shouldn’t let the government’s tendency towards inertia reign or become paralyzed due to its complexity.

LR also remarked that we’re in a recovery process and there’s a sense that we need to move fast. But those most in a hurry are the people who have been living under a blue tarp for 16 months and feel there is no other option than self-building their solutions. Moreover, others state that because we’re in a hurry, there’s no space for participation. Thus, we need to reframe what we mean by “planning with participation.” At times, we don’t need all the data or the best experts up front. There are ways of planning that include action and community reflection. The Plan of El Caño Martín Peña was approved five or six years after being produced, but along the way, and through over 700 community activities, community residents were involved in numerous planning exercises that allowed them to see results, and imagine and work towards a different set of outcomes. We need to figure out how these action plans can be prepared with community input in an expedited manner.

RSB: Commented on the moral arguments usually raised within certain sectors to cast informality as illegal land invasions without considering all the structural factors that have led to the rise of informal settlements. He also added that the state needs new instruments to address informality, including a revision of land and property tax, for example, to begin addressing some of these structural factors.

MH added that somewhere around 40,000 housing units have been repossessed on the island, which amounts to over 100,000 people being displaced from their homes. Something happened in their support system that those people lost their homes. Can the state track where those people are? The housing problem goes beyond what happened during Hurricane María. CDBG-DR funds help solve disaster relief, but our housing disaster is much bigger so our planning efforts need to go beyond the post disaster issues.

LR explained that Puerto Rico has tried out some value capture efforts, and mentioned the failed Transfer of Development Rights program that was established in the municipality of San Juan. We have to observe and learn from these examples. There are also numerous municipalities that have developed innovative programs but administrative boundaries sometimes inhibit them from taking full advantage of their efforts, so we have to begin discussing regional approaches as well.

As a case in point, she mentioned that the Caño Martín Peña project will impact 8 different municipalities, but there aren't any instruments that allow the municipalities that will be benefitted, primarily through increased land values, to engage in value capture that will make the Caño project viable in the long run.

## **Questions & Answers Session**

Based on a series of questions focused on value capture mechanisms, tax increment financing mechanisms (TIFs), the role of NGOs and demographic trends, ES remarked that in Latin America, one of the primary reasons for high land costs is the lack of serviced land. There is increased demand due to a lack of serviced land. Many municipalities think it's costly to provide serviced land, but it is more expensive to perform retrofits than to provide roads and water service. In Boston, the high cost of land has to do with the strict regulations on densities, which makes it hard to generate surplus values.

On the role of NGOs, ES explained that they could have a key role in the management of housing units. Builders are not well versed in management, so NGOs can step up. TIFs work if the property tax system is working, if it doesn't then TIFs won't work. It's not a bad tool, but it's important to consider in what contexts it works.

What to do in contexts that are not growing and don't have demographic pressures? It doesn't mean that measures that capture surplus value cannot be devised. Some simpler tools can be designed. The principle behind value capture is not contingent on constant development and growth. We must consider when is a good time to implement these measures: when there's a decline in growth or an increase? How do we implement these measures without scaring away investments? This is also a question that people in the United States' rustbelt are asking themselves.

We're working in a market system where the basic principle is: what's the highest and best use of land? Sometimes the best and highest use is not social housing, so we have to make political decisions. One example is the CLTs, where you're making a conscious decision to take out land from the best economic use, but those uses prioritize social needs. That's part of a political process where priorities are established with regards to the values you want to uphold as a society.

AK added that we have to go beyond thinking about upgrading and building, over and above construction issues. It's also about finding the sites. We need to think about the places where housing will be located and if they're accessible for economic opportunity. Under a market mechanism, this is hard to do, but it is a key issue.

MH remarked that CLTs have methods to perform value capture: the "recapture value" or "resale formula." In the Caño CLT, when a property is sold, there are mechanisms to capture and reinvest some of the value increases that are not due to the residents' actions. Residents who participate are made aware that this is how the CLT operates. But the motivation behind this process is different

than the usual market logic, where people attempt to make lots of money from the sale of their property.

EQ stated that while there aren't development pressures in Puerto Rico, there are communities under threat of displacement by investors who want to make way for other uses. There are numerous investors in Condado and Old San Juan, who are buying up many properties so we have to be very watchful.

Other questions from the audience focused on the fact that there are numerous physical spaces that are highly compromised by landslides and coastal flooding. The scenario worsens when we add the threat of climate change. Given this situation, what should be the course of action to deal with these communities? In addition, the international speakers were asked about successful planning and coordination mechanisms that work in places with complex decision making and power structures.

LR on climate change said that these issues are not being addressed with equity. On the one hand, there are concerns about making improvements to housing units that are in flood prone areas, usually poor communities, using federal funds, but at the same time the government allows high end and investment properties to be built in equally risky flood prone areas. But that doesn't mean that we shouldn't address the issue. In the el Caño communities, over 700 families have been relocated. They relocated without holding protests, because the community itself made the decisions through an open and participatory process. We need to ask tough questions regarding relocations, but we need to do so responsibly and justly without supporting policies that indicate that certain communities need to cede the spaces that others covet.

This is a country with numerous plans that ultimately end up being shelved, but this time the plans come with money. In that sense, these plans and funds have the potential to really change the country we want to build. Therefore, it's a good moment to reflect if we want a more fair country. This is why these conversations are crucial.

EQ reiterated that participation is crucial in the relocation of communities affected by climate change.

MH argued that there are certain communities at very high risk. But in dealing with their needs, we need to proceed with sensibility. The people who live in these communities are the ones who know their communities the best, so it's certainly not fair if a community learns about a big mitigation project in their backyard, or relocations, by listening to the radio the same day they're breaking ground.

ES explained that a good example of planning under complex structures is Boston. The reinvention of Boston's waterfront area required coordination with federal, state and local authorities. Even though the results weren't all positive, there's a notion that coordination is crucial. Every 15 years or so a discussion on metropolitan governance arises, which underscores the fact that there are dependencies between different administrative structures.

Another great example is the case of Cuenca, in Ecuador. In Cuenca, they needed to upgrade the city's infrastructure but didn't have the funds. So, they took on debt that they would repay with improvement taxes. Their successful experience led to the establishment of a national program that allowed other municipalities to take on debt backed by the national bank to perform infrastructure upgrades. Municipalities that wanted to participate needed to get their books in order and a number of them did so, and were eventually successful in making key improvements. The reconstruction of Korea and Japan also required multiple levels of coordination and serve as interesting examples.

AK explained that the key point should be that we don't "cut and paste" solutions. Tailoring solutions is the key. This requires grassroots and policymaker knowledge and then some translation so that it works for a specific place.