

Providing affordable housing and developing local economies are daunting tasks for any governments in the world. They require a comprehensive approach, including political commitment, policies, regulations, laws, finance, behavior change and social issues and tools and instruments. It is impossible to completely resolve these complex problems, within the realm of TOD. However, it is important to address these challenges in the context of TOD as TOD is not only about creating economically efficient and environmentally friendly urban spaces. It should also help address the most serious problem facing many cities in developing countries: crippling urban poverty and deprivation.

Land markets typically respond by increasing land prices in and around transit stations, which often displaces low-income households and smaller scale businesses and deprives economic opportunities for low-income workers. Governments, in close collaboration with businesses and communities, should take measures to remedy the negative impact of gentrification and to make cities inclusive, by mainstreaming social development in TOD and ensuring that affordable housing is collocated with mass transit stations. In this effort, cities should also understand that TOD can also increase opportunities through affordable housing and job creation that results from local economic development.

The strategy of corridor level TOD can address the challenge of the gentrification issues. TOD can also increase supply of affordable housing in the TOD station areas in areas where land prices are lower, typically suburbs, compared to the city center. The reduced travel time provided by improved transit thus increases access for these TOD station areas in the suburbs will be within the commutable distance thanks to the reduced travel time of new transit. TOD can also increase job opportunities for poor urbanites by stimulating local economies by providing the benefits of accessibility and agglomeration across the corridor.

Because of the complex issues involved, we also recommend that participants further their knowledge on specific topics through the World Bank's Open Learning Campus's e-learning platform's courses, including: Sustainable urban land use planning; Land readjustment; Land market assessment; Land-based financing; Upgrading Urban Informal Settlements; and Micro Finance; and stay tuned for newer related topics in the future.

## Module Outline and Objectives

## Objectives:

At the end of this module, the participant will be able to:

- Understand the obstacles to inclusive TOD and strategies used to address them, with an emphasis on affordable housing and business dynamics
- Cite several examples of innovative approaches that have worked in various contexts

### Outline:

- 1. Inclusive TOD challenges
- 2. Housing strategy tools for inclusive TOD
- 3. Job creation, local economic development, and training

Inclusion and equity are among the most challenging issues in adopting TOD in any city in the world. These challenges are particularly compounded in cities located in developing countries, where sizeable populations can not find affordable shelter. Though a complete solution to this problem has not yet been found, this module presents approaches for inclusion and equity that have been successful in different contexts.

In this module, we will touch on two broad areas of concern: affordable housing and business dynamics. The latter will include discussion of job creation, linked to adequate skills, as well as consideration of location for a wide range of business groups, both formal and informal. The module is divided into three sections: the first section describes strategies to address the challenges of inclusive TOD; the second presents tools to provide inclusive and affordable housing options in a TOD corridor; and the third presents strategies for local economic development that work with existing and low-income communities within TOD corridors.

After completing Module 7, the participant will:

 Understand the obstacles to inclusive TOD and the strategies that can be used to address these challenges, with an emphasis on affordable housing and business dynamics • Have a basic knowledge of existing tools for affordable housing and LED, and will be able to cite several examples of innovative approaches that have worked in various contexts

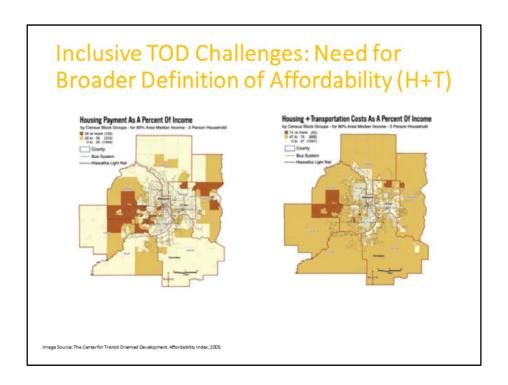
In addition, as has been the case throughout this course, this module will focus on inclusive TOD implemented at the corridor scale. Working at the corridor level provides degrees of freedom not possible at the station area, as we can consider the opportunities for the corridor as a whole when addressing issues of affordable housing, adequate services, and underutilized land.



Let's begin with Part 1, which will discuss common challenges for inclusive TOD.

Image Source: Image Source: Brooke Anderson. We Need Affordable Housing. Photograph. Flickr. July 12, 2007. Accessed November 11, 2016.

https://www.flickr.com/photos/brooke\_anderson/781830006/sizes/l.



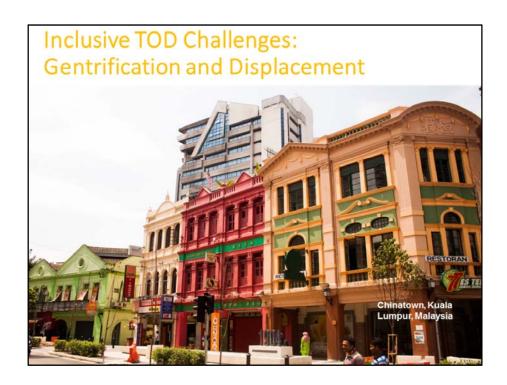
The lack of coordination between land use and transport planning is often reflected in the way that affordability is considered. Affordability is typically understood as the cost of housing; however, the interaction between housing and transportation costs provides a more meaningful measure. The savings from moving to a distant location for more affordable housing can be wiped out by the increased cost of driving to and from jobs and the increased cost of maintaining more cars per household.

In the United States, the Center for Housing Policy quantified this trade-off, concluding that for every dollar a family saved on housing in 2005 it spent 77 cents more on transportation. According to same study, while the average family spends about 19 percent of its household budget on transportation, and households in auto-dependent neighborhoods spend 25 percent, households in walkable neighborhoods with good transit access and a mix of housing, jobs, and shops spend just 9 percent of household budget on transportation. This is a way a showing that affordability isn't just about housing costs alone, it's also about transportation costs: when it comes to affordability, location matters.

The Affordability Index map on the left of this slide shows in light yellow the area of the Minneapolis-St. Paul region that is affordable when one considers housing costs alone; the map on the right-hand side shows how much that area shrinks when one considers the combined cost of housing and transportation. **The true cost becomes even higher when** 

## one takes travel time into account.

Source: "Realizing the Potential: Expanding Housing Opportunities Near Transit." The Center for Transit-Oriented Development and Reconnecting America.



Gentrification is the shift in an urban community toward wealthier residents and/or businesses, with consequent increases in property values. Property values increase for many reasons. In this course, we focus on the gentrification caused by property value increased as a consequence of TOD. Its negative impacts include displacement, political tension, and social upheaval, while its positive effects include urban dynamism and increased fiscal revenues.

In a community undergoing gentrification, the average income increases and the average family size decreases. Poorer pre-gentrification residents (both property owners and tenants) who are unable to pay the increased rents or property taxes may be displaced. Consequently, new businesses able to afford the increased commercial rent arrive to the area, and may cater specifically to a more affluent base of consumers, further increasing the appeal to higher-income migrants and decreasing accessibility to the poor. This situation is common in TOD neighborhoods when there are no measures to mitigate the gentrification.

Image Source: Bertrand DuPerrin. *Chinatown.* Photograph. Flickr. September 1, 2014. Accessed November 11, 2011.

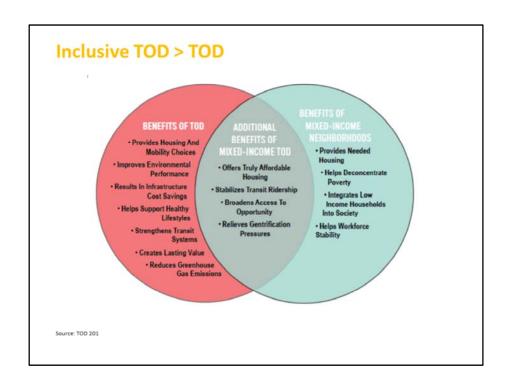
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Most of empirical studies indicate that TOD increase land value close to station areas and transit corridors. Accessibility and productivity increase are key external gains from transit investment, which are capitalized into land values near transit facilities. These land value increases often lead to gentrification. Thus cities need to mitigate the negative impact of gentrification by providing affordable housing in areas well connected to transit. However, local government and transit agencies may not understand the importance of providing affordable housing in TOD areas. Other time, they may lack the tools and experience to provide affordable housing to these locations. In addition, prevailing regulations such as single land-use zoning and excessive minimum parking requirement reduce development potential and make construction of affordable units financially unfeasible. Often there aren't many development sites to begin with, because neighborhoods around stations are already built up. Available parcels may also be small and fragmented, and require assemblage. In strong housing markets, affordable housing developers have an especially hard time getting their projects financed. Some jurisdictions have inclusionary zoning ordinances requiring a percentage of affordable units in all development, but these ordinances often allow the affordable units to be built offsite - and not near transit.

So, to summarize, some of the most common challenges to build affordable housing in TOD neighborhoods include:

- Land prices around stations increase sometimes due to speculative purchases, when a new transit line is planned. Moreover, affordable housing developers don't have enough capital to acquire land before the prices go up and hold it until it's ready to be developed.
- Funding for affordable housing is often limited.
- Mixed-income and mixed-use projects require complex financing structures.
- Sites often require land assembly and rezoning, leading to lengthy acquisition and permitting processes that increase costs.
- Community opposition to density, mixed-income, and affordable housing can be challenging. Community outreach and education up front can be helpful, but also time-consuming and costly.
- Affordable development at these sites requires collaboration among the public, private and nonprofit sectors, which can be difficult to coordinate.



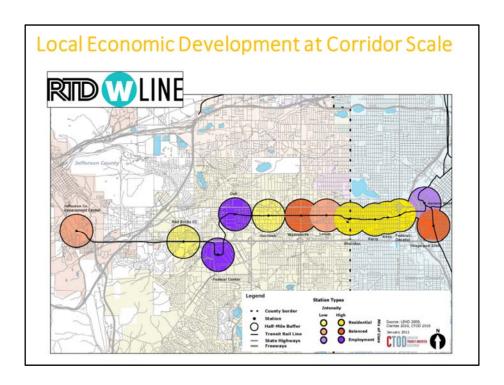
So why should cities strive to provide affordable housing in TOD neighborhoods? Why is Inclusive TOD better than just TOD?

There is a growing consensus that communities that provide housing for a mix of incomes produce better economic, social and environmental outcomes for all residents. Mixed-income housing makes it possible for people of various socio-economic levels to live in safe neighborhoods near well-funded schools and good city services, with greater access to a wider variety of jobs and opportunities. Providing housing for a mix of incomes also allows families to continue living in the same community, even as children grow up and look for their own apartments or homes, and parents grow older and want to down-size their living arrangements.

The socio-economic diversity that mixed-income housing provides also enhances community stability and sustainability, and ensures that low-income households are not isolated in concentrations of poverty. In addition, we are beginning to understand that the mixing and mingling of people from diverse backgrounds and experiences promotes innovation by increasing the opportunities for people to share and combine ideas from different perspectives and traditions. Mixed-income housing also helps stretch the limited resources available to address the affordable housing shortage. The inclusion of market-rate units can help to cross-subsidize the inclusion of affordable units, and help ensure

there will be high-quality design and construction.

While providing for a mix of incomes in communities in general is good, providing for a mix of incomes in walkable neighborhoods near transit is even better, as shown in the intersection of the graph: inclusive TOD helps to provide truly affordable housing, increases transit ridership, broadens access to opportunity, and relieves gentrification pressures. Most importantly, in addition to the savings realized because housing is affordably priced, families living near transit can also own fewer cars and drive them less, which means significant savings on transportation costs.



New transit linkages and effective TOD can also tie economic clusters together across a region, allowing regional economic development to accelerate and businesses to have access to a critical mass of talent. This allows local areas to take advantage of the economies. This economic activity creates jobs that can help increase economic welfare for all, including the poor. At the same time, this corridor can be marketed as a cohesive unit for real estate and business investment going forward.

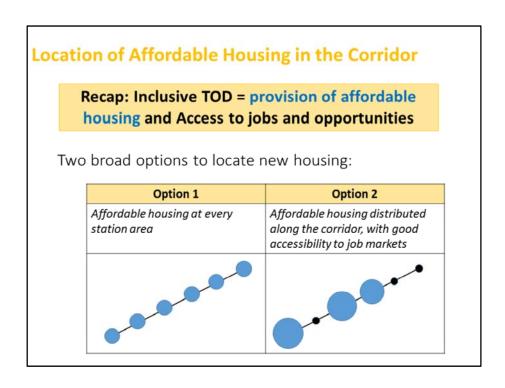
The example above is the W Line, a light rail line that opened in the Denver region in 2013.



When implementing inclusive TOD, it is also important to consider the effects new development can have on local business. With TOD and the arrival of new residents, existing businesses are often displaced. New businesses able to afford the increased commercial rent arrive to the area, and may cater specifically to a more affluent base of consumers. In this environment, even if affordable houses are provided, the poor may have difficulty finding jobs which fit their skill profile.

An inclusive TOD strategy helps existing workers adjust to new job demand by developing job opportunities and training suitable for them, while simultaneously responding to the needs of a TOD community. For example, in Singapore, the government set up many hawker centers where street vendors can operate legally under the sanitary control of the government. The hawker centers provide not only prepared food, but also groceries and other daily needs. They attract tourists and business persons for reasonably priced prepared foods.

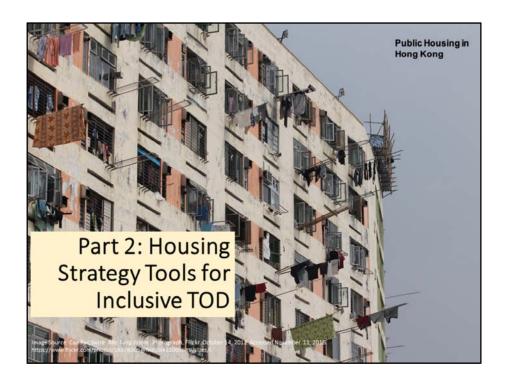
Image Source: Tiberbiu Ana. *Hawker Center.* Photograph. Flickr. May 5, 2012. Access November 11, 2016. https://www.flickr.com/photos/txberiu/7144522029/sizes/l.



A major policy decision that must be made when implementing inclusive TOD is the strategy by which affordable housing units are located. The location chosen for affordable housing often depends on the circumstances, regulations, resources and land available in a specific TOD corridor.

Should affordable housing be built at each station area to achieve inclusive TOD? Or is it more feasible and cost effective to locate affordable housing somewhere with many relatively less costly lands (often in the suburbs) in the corridor with access to mass transportation, but not necessarily at every station area?

Ideally, each station area should have mixed-income communities and mixed-use building to achieve all the benefits of a TOD project (social integration, diversity, access to opportunities). However, in most cases, due to huge demand for affordable housing, prohibitive costs, lack of available land, and sometimes, local culture, it might not be possible to build enough affordable units at every station area along a corridor. When this is the case, a second option is to create a balance of uses and housing at different market level points along the corridor. Key to the idea of inclusive TOD is accessibility to jobs and services, even if selected locations are not in the city centers, with associate performance metrics.



To minimize displacement and create space for housing units available at a range of income levels with access to mass transit, different strategies and instruments can be used. This section explores these housing strategy tools for inclusive TOD.

Image Source: Can Pac Swire. *Mei Tung Estate.* Photograph. Flickr. October 14, 2012. Accessed November 11, 2016.

https://www.flickr.com/photos/18378305@N00/8412003689/sizes/l.

## Two Complementary Approaches for Affordable Housing

#### Preservation

- There are multiple, appropriate preservation opportunities
- There is high potential for displacement of existing renters, so a wide range of rental arrangements must be available
- New production opportunities are relatively scarce

#### Production

- Key income groups are being underserved by the existing housing stock
- There are multiple opportunity sites for new development
  - Redevelopment of underutilized sites,
  - · Vacant lots,
  - Joint public/private development

Source: Based and adapted from Miledrincome housing 700 action guid

TOD districts are likely to benefit from a combination of affordable housing production and preservation strategies. However, the choice of emphasis – preservation vs. production – varies with specific housing markets, the availability of opportunity sites, and housing needs.

The following slides focus on the circumstances in which a preservation or production strategy would work best, and what tools may be applied to those circumstances. Preservation efforts may be necessary in cooler-lukewarm market districts, and are most needed in warmer markets. In districts requiring high development costs, subsidy funding can be quickly exhausted by the site acquisition costs involved in new production. In these contexts, it is also worth looking at ways to preserve or enhance existing, low-cost housing options.



There are three main strategies that governments can use to preserve affordable housing:

- 1. Protect against immediate renter displacement, while ensuring adequate rights of owners
- 2. Help lower-income residents afford homeownership opportunities in transit zones
- 3. Preserve existing subsidized housing and low-cost rental housing

In the following slides we will describe the details of each of these strategies.



In hot housing markets, displacement of lower-income residents may already be occurring. The tools associated with housing preservation can help to reduce the loss of low-income renters in TOD districts. All of these tools apply to formal housing markets.

Condominium conversion controls are a tool for protecting existing renters. One of the ways in which low-income rental options can be lost in appreciating markets is the conversion of apartments to condominiums. In hot housing markets that are seeing growing demand for homeownership housing, owners may evict tenants and sell off units as condominiums at prices too expensive for existing renters to afford. In such markets, there is rarely time to prevent the loss of renter households just by creating new affordable housing, as conversions can happen on much quicker timelines. Condominium conversion controls can moderate the conversion of rental units into condominiums, stemming the loss of low-cost housing options in a transit district and buying time for the creation of other affordable housing options. Local governments typically use a combination of fees, restrictive conditions and permit limits to manage condominium conversions in their jurisdiction. Per-unit conversion fees discourage conversions altogether if set at a high enough level. Alternately, fees can generate funding that can be used for affordable housing production elsewhere in the jurisdiction. It is important to acknowledge that condominium conversions can help create lower-priced homeownership options for moderate-income households. In creating controls, therefore, a jurisdiction ultimately

needs to balance its need for homeownership housing with its need to retain low-income rental opportunities.

Another way to preserve low-cost housing opportunities in TOD districts is to give nonprofit affordable housing developers, tenants or tenant cooperatives the **first right to purchase** multi-family buildings put up for sale. Such a law helps increase the likelihood that when formerly low-cost housing developments are put up on the market they will be purchased by either existing renters, or by entities that will keep the buildings affordable over the long-term.

Having **clear rules and enforcement of eviction** can help both renters and owners. We need to remember that the rights of owners must be balanced with the rights of tenants, with mechanisms for resolution of disputes available to both at a low cost. This becomes relevant in some of the examples we will discuss on following slides.

Finally, **pre-project land tenure formalization** could promote home ownership, either individual or via equity co-ops), allowing residents to capture the value uplift themselves. Formalization before the project occurs helps avoid predatory behavior and rapid gentrification.

Image Source: Andrew Basterfield. *Park Hill Flats, Sheffield.* Photograph. Flickr. January 6, 2012. Accessed November 14, 2016.

https://www.flickr.com/photos/andrewbasterfield/6655748683/sizes/l.



Most affordable housing strategies focus on the supply side of the housing equation. Supply-side strategies work best, however, when complemented by "demand-side" assistance that increases the range of housing options available to low- and moderate-income households. Tools associated with this strategy focus on increasing the capacity of low- and moderate-income households to own housing in transit zones, either in the form of shares or outright unit ownership.

Local jurisdictions can offer **programs to help homebuyers purchase housing**. These programs take many forms, including: down-payment and closing cost assistance, forgivable loans, below-market-rate mortgages, and mortgage guarantees. These assistance programs focus on the demand side of the affordable housing equation, but can still be targeted to certain areas – like TOD neighborhoods– just as they are often targeted at certain homebuyers, like first-time homebuyers and low-income households.

Another effective way to help stabilize a base of residents that are at risk of displacement is through **limited equity co-ops**. These offer ownership opportunities at a much lower cost than typically available through an individual mortgage or down payment formulas. Through the cooperative model, residents share ownership of a multi-unit building. But rather than purchase individual units, participants purchase shares of a building, usually at a much lower price than a typical down payment. Households also pay "carrying charges,"

essentially monthly rents limited to a percentage of income, which cover operating expenses and mortgage debt service. Through this model, households not only benefit from the stability of homeownership, but also can share in the appreciation of the multi-family building and access tax advantages like mortgage interest deductions. Limited equity co-ops are also usually set up to ensure long-term affordability. Resale limits are placed on the sale of shares, so that shares sold to subsequent buyers will be as affordable as they were initially.



In cooler and lukewarm housing markets, market-rate rentals that are currently affordable to low-income households may soon become unaffordable, particularly as transit improvements are reflected in the value of the properties. Retaining the affordability of existing, low-cost multi-family housing is another important strategy that can be used to preserve a TOD-area's overall affordability.

Community Land Trusts (or CLTs) purchase and retain ownership of land to ensure its ongoing use for community purposes. A form of collective ownership, they often are set up to promote the long-term affordability of rental buildings and ownership housing. CLTs promote ongoing housing affordability by retaining ownership of the land beneath homes and multi-family buildings, even after those buildings are sold to income-qualifying households or other nonprofits. By retaining land ownership, CLTs permanently remove the price of land from the home's cost, thereby reducing the degree to which rising land prices inflate the cost of the home when property changes hands. This land ownership also gives the CLT legal leverage to require that homes are sold at affordable prices based on agreed-upon resale formulas, or rented at affordable levels.

In developing countries, collective ownership and management models are being developed and applied, as seen in the next slide.

## Case Study: National Baan Mankong Program, Thailand



The Baan Mankong Housing Program in Thailand provides an example of an innovative collective ownership cooperative program for housing for the poor.

Image Source: Cak-Cak. Upgrading. Photograph. Flickr. July 5, 2008. Accessed November 11, 2016 https://www.flickr.com/photos/cak2/2645762087/sizes/o/.

While not directly related to TOD, the Baan Mankong Housing program provides an example of an innovative collective ownership cooperative program for housing for the poor. The Baan Mankong program improved the lives and living conditions of more than 90,000 households in 1,546 communities across Thailand between 2003 and 2011, while, at the same time, spending the equivalent of just \$570 per family.

Instead of treating residents as just beneficiaries of government aid, the Baan Mankong program (which means "secure housing" in Thai) facilitates a process that is entirely community driven. The program supports networks of poor communities to survey and map the poor and informal settlements found across a city, and develop plans for comprehensively upgrading them. Residents partner or consult with experts from local governments, NGOs, and academia, but it's the members of individual settlements that take the lead in surveying and mapping the community, developing plans and budgets for upgrading housing and infrastructure, and negotiating some kind of secure land tenure. Once the communities have reached an agreement on land tenure and have completed their upgrading plans and budgets, the implementing agency, Community Organizations Development Institute (CODI), issues infrastructure subsidies and/or subsidized loans directly to the community. This empowers the poor to determine where and how they want to improve their community.

Communities may accept less secure tenure arrangements, such as long-term leaseholds, in order to remain in an area near jobs and transit corridors. A community that wishes to remain in an area where land is in short supply may decide to forgo development of larger, detached homes, opting instead to build denser communities of smaller two or three-story row houses.



In hot housing markets, which are often located near transit modes and corridors, high prices and intense competition for land amongst private developers can make it difficult for affordable housing developers to gain site control for new affordable development. Forprofit, market-rate developers are frequently able to gain access to land acquisition loans more quickly than nonprofit developers, and build units targeted at higher income brackets.

For affordable housing developers, limited subsidy funding covers even less of total development costs when high land prices are factored in. One helpful strategy in this context is to require affordable housing development as part of new market-rate production. In dynamic housing markets, it may be feasible to set inclusionary requirements for new development without assistance provided. In lukewarm or cooler markets it may only be possible to attract market-rate housing while imposing affordability conditions if some major form of public assistance is provided. Various tools such as inclusionary zoning and policies tying public assistance to affordable housing set-asides are associated with this strategy.

These types of strategies and tools are described in the following slides in more detail.

# Housing Production: Link Affordable Housing Production to Market-Rate Development



### Inclusionary zoning - different specifications

- i. Percentage required
- ii. Income targeting
- iii. Mandatory vs voluntary requirement (inlieu-fee)
- iv. Formula to calculate the fees



### Incentive-based zoning

- Density bonuses
- II. Greater height or floor-area allowances
- III. Parking space reductions

Image Source: EMBARQ Brasil. DOTS Cidades - Manual de Desenvolvimento Urbano Orientado ao Transporte Sustentável. November 2014. Accessed August 23, 2016. http://wricidades.org/research/publication/dots-cidades-manual-de-desenvolvimento-urbano-orientado-ao-transporte

Let's turn now to a few different tools that link affordable housing production to market rate development. We can divide these tools into two groups: **inclusionary zoning** and **incentive-based zoning**. These tools are examples that cities can use though their regulatory and taxing powers to incentivize the production of affordable housing.

**Inclusionary zoning** can be a powerful tool for involving the private sector in producing affordable housing near transit. Inclusionary zoning requires developers of new housing to make a percentage of units affordable to lower-income households as a condition of permitting approval. Key components of an inclusionary zoning policy that help determine how effective the policy is in producing actual housing are:

- The percentage of units required (percentages often range from 10% to 25%)
- How the percentage is broken down. For example, a jurisdiction may have a 15% inclusionary requirement with 8% for low-income housing and 7% for very-low income housing, usually measured using the median household income. Ideally, the breakdown of the percentage should reflect the identified housing needs in the community.
- How strong the policy language is in terms of requiring developers to build the units onsite. Most jurisdictions offer the option for the developer to pay an in-lieu fee instead of building affordable housing on-site. In-lieu fee options can have both positive and negative effects, depending on a variety of factors including the strength of local housing

- markets. To maximize the positive benefits of a transit corridor and TOD, a middle ground that would require an "along corridor-must build" policy would be ideal.
- The formula for setting the in-lieu fee. Different jurisdictions have different formulas for
  calculating their in-lieu fees. Some have a flat rate per unit, while others calculate a fee
  based on a percentage of building costs or sales prices. Regardless of formula, however, it
  is important to make sure that the in-lieu fee is set at a level high enough to fund the
  construction of off-site units.

The second set of tools are known as **incentive-based zoning.** Incentive-based zoning provides developers with rewards like density bonuses, greater height or floor-area allowances, or parking space reductions, in exchange for meeting certain housing objectives. Zoning incentives generally entice market-rate developers by increasing the building envelope in which developers can build, lowering developers' per-unit costs, and helping to make inclusion of affordable housing more feasible. Through these incentives, jurisdictions can encourage developers to provide mixed-income housing at increased levels of affordability.

## Housing Production: Reduce the Cost of Housing Production

- Reduced parking requirements
- · Fast-track permitting
- Fee-waivers, reductions and deferrals
- Regulatory accommodation for small sites
- Allow for and promote incremental housing



Image Source: Slum Dwellers International. Kenya Affordable Housing. Photograph. Flickr. August 14, 2013.

Rising construction costs, fueled in part by the increasing costs of materials, have made new housing development challenging in many areas. Policies and tools that find ways to lower the cost of housing production can be very helpful. Small, scattered sites are particularly sensitive to regulatory constraints, housing requirements and other factors that increase development costs.

**Parking requirements** are one place to start, especially where they are set inappropriately high. Provision of large amounts of parking increases costs by restricting the amount of land available for income-generating uses. Cities can lower the cost of housing near transit by adopting parking standards that reflect the greater likelihood that residents in well-designed, transit-oriented developments will use transit. Cities can also:

- Lower parking minimums for affordable units, small units and senior housing. In some cases, cities can consider parking maximums in transit zones.
- Lower minimums for developments that "unbundle" parking. When parking spaces are sold or rented separately from housing units there is evidence that demand drops.
- Lower parking minimums for developments that have shared parking facilities, or onsite, car share services.
- Through the development of a Parking Management Plan, a local government can flexibly respond to different variables that influence the amount of parking necessary in

a development or in a neighborhood. It can also outline shared uses where parking spaces are used at night by residents and during the day for commercial and office workers.

Time is money when it comes to building housing. Jurisdictions can also help reduce the cost of affordable or mixed-income housing in TOD areas by **expediting permitting approvals** for these kinds of projects. Expedited permitting helps in two ways – it can lower the costs of holding land in advance of construction, and it helps inject greater certainty into the development process, which can in turn lower the cost of financing. Expediting can occur by prioritizing the review of TOD projects, establishing set time periods for decisions on applications, creating "one-stop," multi-agency review committees, assigning a project expediter within local government staff for each transit zone project, or utilizing other techniques that emerge as a result of a jurisdiction taking a comprehensive look at how to streamline and coordinate the various approval processes for development projects.

Local governments also can reduce the cost of producing affordable and mixed-income TOD housing by waiving, reducing or deferring impact fees.

Small, scattered sites are particularly sensitive to regulatory constraints, housing requirements, and other factors that increase development costs, given that fixed costs can only be spread over a relatively small number of units. Where site assembly is not possible, it is important to look at **how to maintain the viability of small sites for development**. In many inner city TOD areas, for example, it may make sense to exempt smaller projects, for example, those with less that 5 units, from inclusionary zoning ordinances and parking requirements. This idea could be extended to sites less than a specified size, for example sites less than ¼ acre.

## Case Study: Incremental Housing in Quinta Monroy, Chile



- Economically efficient "half a good house" model of Alejandro Aravena and ELEMENTAL
- Pioneered in Chile, also used in Mexico and Brazil

http://www.ecbloguer.com/globalnewsroom/?p=12599

In the early 2000s, Quinta Monroy was a densely populated informal community in the center of the coastal city of Iquique, Chile. Families began to squat and build informal structures on the location as early as the 1970s, and within three decades the settlement grew to almost 100 families on a plot of land of about 5,000 square meters. As the rest of the city expanded outward and land values increased, concerns grew over what to do with the location and its residents—then seen as illegal occupants.

In 2002, the *Chile-Barrio* program, a national initiative implemented by the country's Ministry of Housing and Urban Planning, contracted Alejandro Aravena and his firm ELEMENTAL to tackle the project. Aravena—the 2016 Pritzker laureate, the top recognition for architectural work—was tasked with re-housing the community with a subsidy of USD \$7,500 per family, without relocating the residents to urban peripheries. Given the tight space and financial barriers, Aravena was able to provide each family a middle-class home by offering to build physical foundations, concrete walls and floors, stairs, and the kitchen and bathrooms, arranged in a rowhouse pattern—in theory, the half of a house that might be *most* difficult for a family to provide for themselves. The insides were left largely unfinished, allowing families to incrementally develop, design, and build in the rest of their homes over time.

This approach allowed for a faster and more economically efficient process, and, by the

second half of 2004, construction was complete and families were relocated to their new homes. Hailed as a success, the project ensured community members were neither alienated nor displaced, and property values reportedly exceeded USD \$20,000 within the first year. ELEMENTAL has since delivered 2,500 units for social housing projects in Chile, Mexico, Brazil, and has submitted designs and prototypes for projects in Milan, Geneva, and New Orleans. In early 2016, Elemental released plans for four of its social housing designs for open source, public use.

Sources: WRI based on:

"Quinta Monroy / ELEMENTAL." ArchDaily. December 31, 2008. http://www.archdaily.com/10775/quinta-monroy-elemental.

"Architects 'are never taught the right thing' says 2016 Pritzker laureate Alejandro Aravena." Dezeen Magazine. January 13, 2016. http://www.dezeen.com/2016/01/13/alejandro-aravena-interview-pritzker-prize-laureate-2016-social-incremental-housing-chilean-architect. "ABC de la Vivienda Incremental." ELEMENTAL. http://www.elementalchile.cl/projects/abc-of-incremental-housing.

http://www.elementalchile.cl/en/projects/quinta-monroy/



In infill TOD areas, many redevelopment opportunities remain underdeveloped because of challenges particular to that site that deter would-be developers. The public sector can play a role in removing some of these barriers so that private development may proceed. Where appropriate, this assistance can be conditioned on the inclusion of affordable housing units into the overall development. City redevelopment agencies, for example, can purchase and assemble sites with fragmented owners, remove tax liens, demolish vacant buildings, apply for brownfield remediation assistance, and clear up murky title issues to make properties easier for private development. All of these action significantly reduce the cost of development.

**Tax Forgiveness.** One way in which local governments can facilitate private affordable housing development is by removing tax liens on abandoned properties for developers providing affordable housing. Vacant land and vacant buildings often remain undeveloped because of outstanding property tax obligations that must be assumed by whomever purchases the property. Local governments can forgive these tax liens for developers that agree to build affordable housing on site. In some contexts, it may be appropriate to expedite the process by which local governments can acquire tax delinquent properties through foreclosure.

Brownfield Remediation. Brownfields are former commercial or industrial sites whose

reuse is impeded by real or perceived contamination that has accumulated over many years. Cleaning these sites for residential uses can require considerable financial resources and is made more challenging by the involvement of government agencies, and frequent legal disputes over who is responsible for soil or groundwater contamination. Local governments can help developers remediate brownfield sites in various ways: accessing federal assistance, funding site cleanup themselves, providing funds for site assessments, and even taking on legal responsibility for certifying remediation.



High land and property acquisition prices in warmer and lukewarm housing markets can make developing low and moderate-income housing very challenging. There are multiple ways the public sector can play a role in reducing these costs. Flexible land acquisition financing can be particularly useful in transit zones where the timing for development may not yet be optimal – either because of the market or because transit or other key infrastructure improvements have yet to occur.

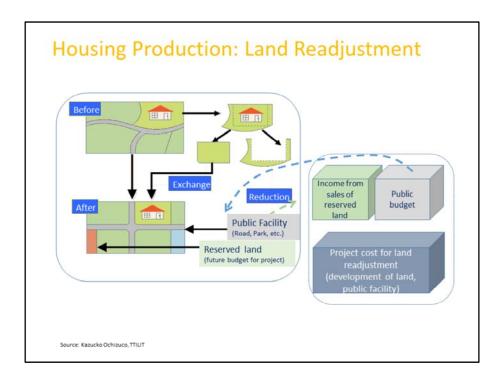
Some tools designed to increase the availability of low-cost loans can also help affordable housing developers close more quickly on land that might be sought after by other developers. Outright land dedication or land write-downs for private developers can be particularly helpful in cooler markets where rents could otherwise not support new development, or in hot markets, where land prices are otherwise prohibitively expensive. Often this assistance is conditioned on the provision of affordable housing.

**Public Land Dedication or Write-Downs.** Local jurisdictions can further facilitate the production of affordable housing in transit zones by making public property available to affordable housing developers at reduced prices. One way this happens is that a local government will donate public land (e.g. vacant lots, surplus property, abandoned schools), or mark down its price, on the condition that a portion or all of the land is used for affordable housing. Land dedication or mark-down can both be used as an incentive to

encourage market-rate developers to include affordable housing in their projects, or as a means to help affordable housing developers achieve financial feasibility for a given project.

**Joint Public/Private Development.** Another way local governments can facilitate affordable housing development is by partnering with affordable housing developers to jointly develop public facilities. Many public facilities – including schools, public parking garages, libraries, and government offices – could be opportunities for mixed-use development with affordable housing. Like land dedication, the joint development of public land can help make affordable housing more financially feasible while overcoming the challenge of limited site availability.

Land Banking. A land bank is a governmental entity created expressly to acquire, hold and facilitate development on vacant, abandoned and tax-delinquent properties. Jurisdictions can create land bank authorities to acquire and hold properties so they can be saved for development as affordable or mixed-income housing near transit. Land banks typically require their own enabling legislation. Land bank authorities also typically have powers to help prepare challenging properties for development through such means as clearing title encumbrances, forgiving property taxes, removing environmental contamination, and assembling parcels. When the time is right for development, land bank authorities usually transfer land to private developers (for-profit or non-profit) with conditions attached that guide how the property will be developed.



Land readjustment is another tool that allows for the agglomeration and resizing of parcels, typically with landowners losing a little land in exchange for improved services and more orderly development. The government or a cooperative of landowners rearrange the parcels in a specific area so that all parcels will have a similar shape and size. When the government or cooperative reallocate the land to the original landowners, they return smaller sized parcels of equal or higher value than the original land parcels, given the availability of improved services. With extra land, the government can create public space and infrastructure, or, in some cases, it can sell these reserved parcels and get income that can be used to support infrastructure and affordable housing.

Land readjustment has a long history of success in Japan, and recently has been applied increasingly in India and other Asian countries. Those interested in more details on this topic should access the World Bank's Open Learning Campus e-learning platform course on Land Readjustment.



Outright grants and equity are the most helpful forms of assistance for affordable housing developments, as they are essential to projects being able to offer below-market rents. However, these funding sources are highly competitive. Limited local funding frequently forces affordable housing developers to piece together multiple funding sources in order to make a project financially feasible. This in turn adds significantly to the overall development timeline, and therefore development costs, making a project more challenging to complete.

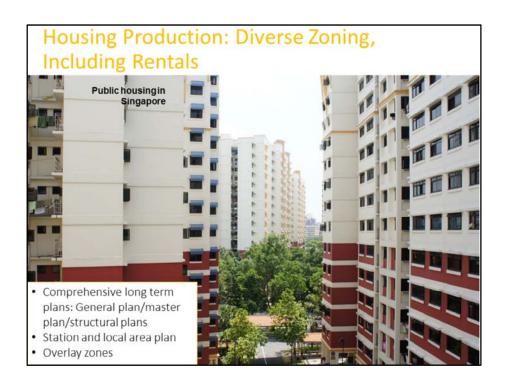
All transit districts can benefit from additional subsidy funding for affordable housing. There are various ways jurisdictions can increase subsidy funding for affordable housing developers in transit zones. A novel approach with considerable promise would be to target existing local funding to transit districts. Other tools focus on increasing the overall pie for subsidy funding through the creation of dedicated revenue sources or increasing fees for such things as condo-to-rental conversions.

The US Department of Housing and Urban Development (HUD) has many programs to provide funding for affordable housing in the United States. The Low-Income Housing Tax Credit (LIHTC) is the dominant funding mechanism for the development and rehabilitation of affordable housing in the US. It is administered by state and local governments, and issues tax credits for the acquisition, rehabilitation, or construction of rental housing

targeted to lower-income households. It is a dollar-for-dollar tax credit for affordable housing investments and gives incentives for the utilization of private equity in the development of affordable housing aimed at low-income families. LIHTC accounts for much of the affordable rental housing created in the United States.

In addition, there also exist some funds tied specifically to TOD. The San Francisco Bay area in California has a Transit Oriented Affordable Housing Fund to provide funding for affordable housing in transit areas. Arlington, Virginia also has an Arlington County Affordable Housing Trust Fund. A third example is seen in the Denver (Colorado) Regional Transit Oriented Development Fund, which provides loans to developers to buy and hold land for five years while transit lines are being built, in order to then develop affordable housing.

The Outorga Onerosa do Direito de Construir (OODC) is used in Brazil to allow increased built density in exchange for a fee. These funds then are shared with under-developed areas of the city. In Sao Paulo, for example, between 20 to 30% of these funds are allocated to affordable housing.



In transit zones with limited large development opportunities, it is particularly important to allow for a diversity of housing options. For example, in built-out single family neighborhoods, secondary and rear units can subtly densify a transit district by taking advantage of space behind existing single family homes, while providing smaller, lower-cost housing units for purchase or rental. In developing countries, this may include upgrading districts of informal housing.

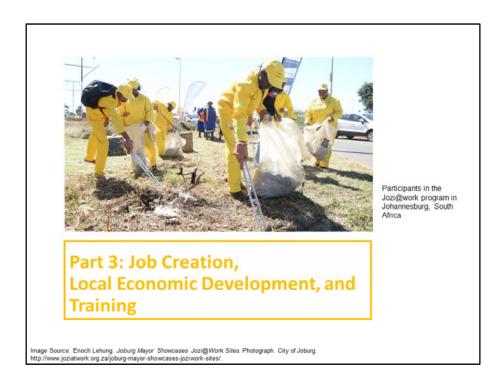
**General/Master/Structural Plan.** Called different things in different places, a master plan is a comprehensive long-term plan for the physical development and growth of a county or city. As a constitution or "blueprint" for development, the Master Plan can establish an overarching framework in support of a city's values and principles, including mixed-income transit-oriented development. For example, the Master Plan can prioritize TOD Districts as places for higher density, mixed-use and mixed-income development and make the appropriate zoning changes to accommodate those goals.

**Station and Local Area Plans.** These plans are similar in purpose to the Master Plan, but are focused on smaller areas within jurisdictions. As future development within station areas, often set at a half mile radius around the station, is likely to be considerably different from surrounding areas, a smaller scale Plan can help articulate the unique goals for the district. A Plan for a station area, and the community planning process involved in

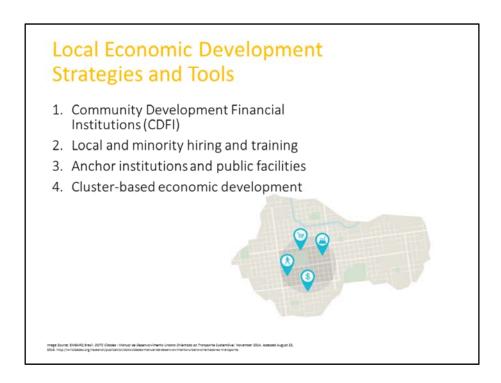
developing it, is an excellent opportunity to formalize a set of goals and outline specific implementation strategies for achieving mix of housing types at appropriate densities and affordability levels in a transit zone or district. Ideally, these local Plans present policies, zoning and development strategies for fostering transit-supportive land uses within the half-mile "transit zone." They are also useful tools for addressing issues of connectivity, station access, pedestrian-friendly design, TOD-supportive parking, and "placemaking."

Overlay Zones can be another powerful planning tool for promoting affordable housing in transit zones. Overlay zones work as part of the zoning code, but are superimposed on the existing zoning map providing modifications to the underlying zoning classifications. This is usually done to promote specific types of development within certain areas, especially near important public amenities, commercial thoroughfares, or transit nodes. Common provisions of overlay zones include lower parking requirements and higher density allowances. In addition, within an overlay zone, a city can impose a more rigorous affordability requirement on new development. A chief benefit of using an overlay zone is that it can be added without requiring a major overhaul of the existing zoning code or a major revision of general or specific plans. The ZEIS (Special Zones of Social Interest) in Sao Paulo, Brazil, present an example of an overlay zone focused on social challenges.

Image Source: Alan Tang Keng Hoe. *HDB Buildings in Jurong West, Singapore*. Photograph. Flickr. February 12, 2011. https://www.flickr.com/photos/digitaljourney/5444908246/sizes/l.



In the final part of this module, the economic development aspects of inclusive TOD will be discussed.



Besides having access to affordable housing, the local population residing in the TOD area must have opportunities to participate in the local economy in order to reap the benefits of increased economic activity in the area. Gentrification is not only related to pushing original population out as a consequence of higher land values and rents; in addition, new economic opportunities in the area might not match the labor force qualifications of previous residents.

In this section, we will look at a series of strategies that can be used to include local populations in the newly created economic opportunities of a TOD area. We will explore the following strategies and tools:

- 1. Community Development Financial Institutions
- Local and minority hiring and training
- Anchor institutions and public facilities
- 4. Cluster-based economic development

# Community Development Financial Institutions (CDFI)

 CDFIs are largely non-governmental financial institutions that provide different types of financial services in targeted underserved areas with which they develop deep community relationships

#### • Examples:

- CDFI Fund (US Federal institution)
- City First Bank of D.C. (Local lending bank in the Washington, D.C. area)
- Social banks and microfinance lenders, such as the Grameen Bank, Aga Khan Agency for Microfinance, and SEWA (India)

Inclusive economic development can be implemented through community development financial institutions, or CDFIs. **CDFIs** are largely non-governmental financial institutions whose primary mission is community development, providing services in targeted underserved areas with which they develop deep community relationships. Community financial institutions and other similar entities are found all over the world, and provide local services to disadvantaged and under-represented populations (i.e., 'social banks' and microfinance lenders). They are generally established to provide a range of financial and credit services, capital and equity investments, and training and technical assistance to small businesses, community organizations, housing developers, and individuals in targeted, underserved communities, largely through a competitive application process. Some focus on specific groups, such as women. A TOD Corridor project can work in partnership with a CDFI to provide financial assistance to local businesses that want to transform themselves to be able to cater to the new population arriving to an area.

#### Further resources:

CDFI Fund, https://www.cdfifund.gov/; CDFI Coalition, http://www.cdfi.org/about-cdfis/what-are-cdfis/

Opportunity Finance Network,

http://ofn.org/sites/default/files/OFN\_20\_Years\_Opportunity\_Finance\_Report.pdf Ben Bernanke, Federal Reserve,

http://www.federalreserve.gov/newsevents/speech/bernanke20090617a.htm CDFI Fund, https://www.cdfifund.gov/City First Bank of DC, https://www.cityfirstbank.com/

## **Workforce Development Programs**

- Local and minority workforce hiring and training programs can prove critical for providing vital economic opportunities for individuals and local businesses
- · Inclusive economic programs can include:
  - Percentage goals for local hiring (ex: construction work)
  - · Capacity building and training
  - · Cooperatives and incubators
  - · Minority business loans

# Some of the most common challenges these types of programs face include:

- · Lack of dedicated political leadership
- Lack of monitoring to ensure compliance from businesses
- · Strong labor pushback
- · Challenges in scaling



Participants involved in the Per Scholas program

Local and minority workforce hiring and training programs can manifest themselves in different ways, but can prove critical for providing vital economic opportunities for individuals and growth for local and small businesses. Programs benefitting local and minority workforces can include city ordinances and set-aside programs, by which local government can impose target percentage goals for hiring or contracting minorities and minority businesses; capacity-building and training, which can include state and non-profit training programs, cooperatives and incubators to reduce costs and increase capacity through technical assistance in a supportive space; and minority business loans, which provide financial assistance to minority firms, either directly or through intermediary banks.

The nonprofit Per Scholas is an example of a successful career training program that provides participants with increased economic opportunity. This program, which is based in the United States, offers information technology training in low-income communities, with a specific focus on providing access to training for women and minorities. Graduates of the program typically see their income increase from an average of \$7,000/year to an average of \$30,000/year, thanks to the technological skills the program teaches.

Some of the most common challenges these types of programs face include:

Lack of dedicated political leadership

- Lack of monitoring to ensure compliance from businesses
- Strong labor pushback
- Challenges in scaling

In addition, because these programs are less visible and come later in the TOD implementation process, they are often underfunded; funds can also be transferred to other components earlier in the implementation process, or run out before programs can be undertaken, which is reported to be the case in Porto Maravilha in Rio.

#### Sources:

PolicyLink, http://www.policylink.org/sites/default/files/local-hiring.pdf; http://www.policylink.org/sites/default/files/minority-contracting.pdf Philadelphia Immigrant Innovation Hub, http://www.phillyihub.org/ Porto Maravilha, http://www.portomaravilha.com.br/ Jozi@Work, http://www.joziatwork.org.za/about/ DC Small Business Development Center, https://www.dcsbdc.org/

### Anchor Institutions and Public Facilities



- Anchor institutions are large, established businesses, organizations, and institutions—most commonly universities and hospitals—that shape and bring value to their communities, often seen as rooted economic drivers of the neighborhood
- Examples:
  - · Libraries in the Comunas of Medellín (Medellin, Colombia)
  - University of Brasilia & Catholic University of Brasilia (Brasilia, Brazil)
  - DC USA, Columbia Heights (Washington, D.C.)

Image Source: Daniel Echeverri. Biblioteca España. Photograph. Flickr. October 25, 2009. Accessed November 11, 2016. https://www.flickr.com/photos/dr\_e\_g/4044727343/sizes/l.

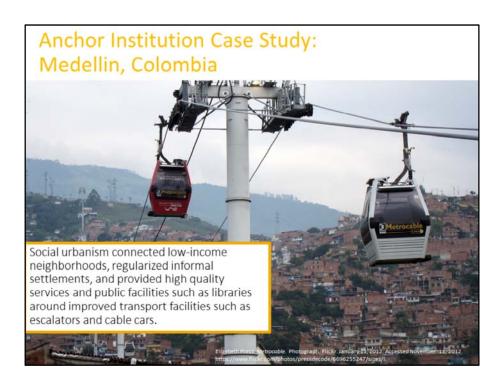
Anchor institutions are large, established businesses, organizations, and institutions—most commonly universities and hospitals—that shape and bring value to their communities, and are often seen as rooted economic drivers of a neighborhood. Public facilities such as libraries and schools can also play this role, especially in poorer neighborhoods or smaller areas. Anchors provide important economic benefits to cities, often employing large shares of the workforce, holding substantial real estate investments, and promoting local impact through social and financial capital. Simultaneously, an anchor relies on its community to provide local support and business. Anchors also can convey a sense of safety and identity that can be important for areas in transition.

Some examples of anchor institutions include:

- Libraries in the comunas found in Medellin, Colombia, that helped transform low-income neighborhoods.
- The University of Brasilia & Catholic University in Brasilia, Brazil
- Large shops can also provide anchors to community development, which can be seen in the Columbia Heights neighborhood in Washington, D.C.

Sources:

- 1. Community-Wealth, http://community-wealth.org/strategies/panel/anchors/index.html; Living Cities, https://www.livingcities.org/work/anchor-institutions
- 2. Living Cities, https://www.livingcities.org/resources/235-harnessing-the-economic-power-of-anchor-institutions-lessons-learned-through-living-cities-investments-from-2010-2013
- 3. ICIC, http://icic.org/wp-content/uploads/2016/04/ICIC\_Anchors-and-Urban-Econ-Dev.pdf?d6eba3
- 4. WRI, World Resources Report: Towards a More Equitable City, forthcoming.
- 5. Lincoln Institute of Land Policy, https://www.lincolninst.edu/pubs/dl/1317\_Martins%20Sawaya%20Final.pdf
- 6. DC USA, http://www.shopdcusa.com/



One great example of a successful anchoring institution that helped change a neighborhood are the **libraries in Medellin**, Colombia. Medellin's Strategic Plan (1995) prioritized delivering basic services to the informal settlements on the hillsides. The strategy of social urbanism committed resources to improve services in parts of the city where development was the weakest; this pattern continued over several political administrations. As part of the vision of social urbanism, Medellín used a strategy of implementing large urban development projects (UDPs) in the poorest parts of the city. It was believed that the violence and inequality that characterized Medellín were a result of the state's abandonment of and disinvestment in its most marginalized districts, the *comunas*. Many UDPs focused on physical planning solutions, such as cable cars, outdoor electric escalators, schools, libraries, and parks. The size and aesthetic value of these projects were part of this strategy.

In addition, to address the shortage of affordable housing, much of the housing in the *comunas* on the steep hillsides has been legalized. Much of the city's new housing has been built around transit-oriented development. One of the first projects started under the vision of social urbanism was the metrocable, a gondola lift system of cable cars connecting the poorest, most densely populated hillside neighborhoods to the city, thereby linking residents outside formal economic networks to formal sector employment.

Source: WRI WRR Framing Paper "Towards a More Inclusive City," forthcoming

Image source: Nicolas (niconectado) CC BY-NC-SA 2.0 https://www.flickr.com/photos/niconectado/14394332251/in/photolist-nVYHug-nsecbD-oUqPmi-fEYB7o-7fhFt9-cY8uFA-eW8jHA-21djZ-7JwktE-cpdt7J-cY8GWY-akb3tR-bwfez5-did6rf-8vpBEd-nY4fA6-nyyP15-awjZMT-apM6gu-zWEWpF-FC2Zz3-9NUYGU-FnqWB-krCB96-39svUF-2nZqp5-geAV9A-8RkfN2-7d2qkn-coEXJG-na1PRp-oaXbgx-5sq9VC-bVQFv4-gDYq3P-4ubgBv-nDMzuf-aykz3e-nWgUVT-GpkaCJ-pBUbEf-e6iBFV-coF2TA-cvJGyu-cY8F5q-e5xJRx-DuZgBJ-6Rr1ny-4cCVWE-2wzLK2



Cluster-based economic development refers to the agglomeration of related businesses and institutions—in the same or overlapping industries—in a specific geographic location, with the aim of connecting logistical, employment, technical, and knowledge assets, operations, and/or needs to create shared value and drive a regional economy. Similar to anchor institutions, industry clusters are designed to promote and optimize economic growth and competitiveness. While clusters can develop naturally, based on their local business environment, cities can focus on this kind of economic development by identifying and supporting the creation of meaningful networks between companies and even across industries. Clusters can be connected to mass transportation corridors, and take advantage of corridor connectivity to provide a range of complementary business and housing for the people working in the cluster.

#### Successful clusters can be seen in the following examples:

- Software and computer services cluster in Bangalore, India
- Apparel industry outside Santo Domingo in the Dominican Republic
- Aerospace industry in Queretaro, Mexico

#### Sources:

1. Int. J. Technological Learning, Innovation and Development,

http://www.clustermapping.us/sites/default/files/files/resource/From\_clusters\_to\_clust er-based\_economic\_development.pdf; Brookings Institution, http://www.brookings.edu/~/media/research/files/reports/2006/3/cities-cortright/20060313\_clusters.pdf

- 2. ICIC, http://icic.org/wp-content/uploads/2016/04/ICIC\_JPMC\_AcceleratingClusterGrowth\_ExecutiveSummary\_final\_v2.pdf?c73a24&58f619
- 3. Asian Development Bank, http://www.adb.org/sites/default/files/publication/29242/cluster-based-local-economic-development.pdf

## **Module Quiz**

- 1. Gentrification often involves:
  - a. An increase in rents
  - b. An increase property taxes
  - c. The displacement of poorer residents
  - d. A shift in an urban community towards wealthier businesses and residents
  - e. All of above
- 2. The Baan Makong Program in Thailand empowers poor communities to take ownership of their housing development through:
  - a. New land acquisition laws
  - b. Private investment
  - c. Community cooperative land ownership
  - d. Government loans for rent payments
- 3. Housing production and housing \_\_\_\_\_ are two complementary strategies used to encourage affordable housing options.
  - a. Assembly
  - b. Preservation
  - c. Development
  - Subsidization
- 4. Which of the following are ways to reduce the cost of housing production?
  - a. Regulatory accommodations for Small Sites.
  - b. Fast-track permitting
  - c. Reducing parking requirements
  - d. Fee-waivers, reductions, and deferrals
  - e. All of the above

#### **Answers**

- 1. e
- 2. c
- 3. b
- 4. e

## **Module Quiz**

- 5. Alejandro Aravena's firm ELEMENTAL teamed up with Chile's Ministry of Housing and Urban Planning to reinvent Quinta Monroy, an informal settlement in the city of Iquique, by providing:
  - a. Furniture, bedding, and household goods
  - b. A spacious and clear lot for the family to build their own home
  - c. The physical foundation of a home in a rowhouse style
  - d. A housing unit made of a used shipping container
- 6. Overlay zones:
  - a. Prevent new development in designated areas in order to preserve the current zoning classifications.
  - Are superimposed over a targeted area for development and modify the underlying zoning classifications
  - c. Preserve urban areas of historical importance and value.
  - d. Are superimposed over Business Improvement Districts to map out tax credits.
- 7. True or False: Anchor institutions rely on community support for success.
  - a. True
  - b. False
- 8. Often, affordability is thought of in narrow terms as simply the cost of housing. However, a more meaningful measure of affordability is housing costs plus the costs of:
  - a. Utilities
  - b. Groceries
  - c. Transportation
  - d. A and C

#### **Answers**

- 5. c
- 6. b
- 7. a
- 8. c