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NONPROFIT QUARTERLY
Innovative thinking for the nonprofit sector

REMAKING THE ECONOMIC SYSTEM IN PUERTO RICO: A CASE STUDY

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image courtesy of artist Heather Goodwind

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#RebuildTheEconomy

Series Overview

Remaking the Economy

11-8-2018

Community Land Ownership

12-13-2018

Community-Owned Business

1-10-2019

Community Capital & Finance

2-14-2019

Leveraging "Eds & Meds"

3-14-2019

Building Policy Agendas

4-11-2019

How to Succeed at Changing the System

5-9-2019

And beyond!

ECONOMY REMIX

Series Learning Objectives

- Clarify core principles
- Develop a toolkit
- Understand ecosystems
- Identify ways to decolonize wealth and foster racial equity
- Highlight points of leverage
- Foster shifts in practice and thinking
- Balance short-term goals with long-term vision

Understanding Systems and System Change Key Principles

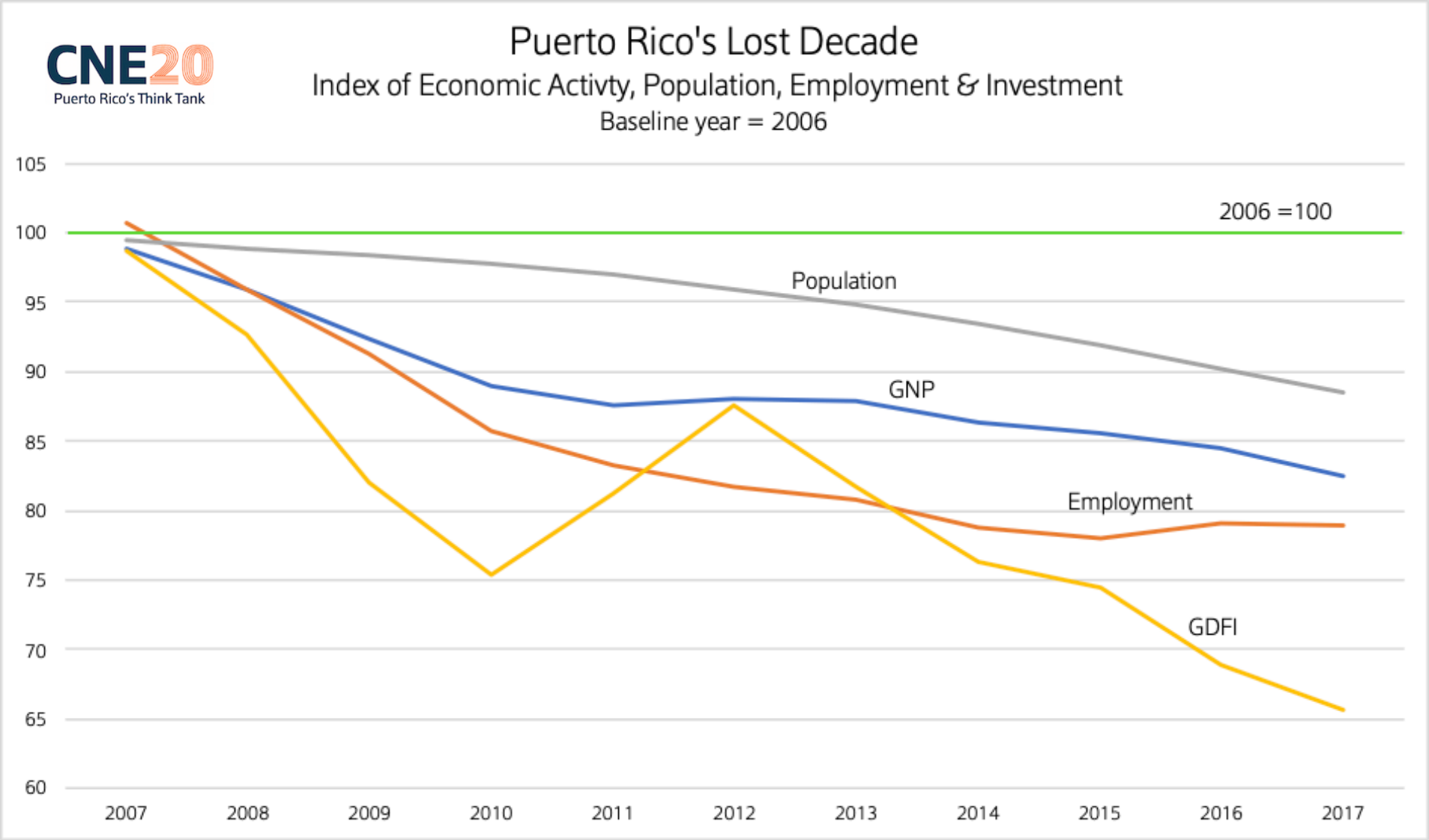
1. No system is ever total.
2. Systems overlap.
3. Systems evolve.
4. System change is rarely total.
5. New systems emerge out of the shell of the old.

Possible Systemic Changes in Puerto Rico

1. Rise of an equity approach (Nelson Colón)
2. A new approach to the role of the state/new fiscal model (Deepak Lamba Nieves)
3. Redefining what counts as “capital” (Nelson Colón)
4. Sectoral innovation
   a. Housing/land tenure (Lyvia Rodriguez)
   b. Energy (Ruth Santiago)

Implications for the US Mainland—and Beyond

1. Justice Funders: equity approach in the Bay Area.
2. Elizabeth Castillo: multiple capitals framework.
3. Rise of community land trusts, worker co-ops nationwide.
4. Calls for a Green New Deal—could Puerto Rico be modeling the future?



Source: CNE Analysis of Puerto Rico Planning Board Data

Opportunities Amidst Disasters

Growth+

Energy

Housing

Fiscal Rules

Energy

- Puerto Rico is transitioning from a centralized system to one based on distributed generation using renewable sources of energy.
- Puerto Rico's new electrical system should maximize integration of renewable generation capacity systems and storage technologies.
- Solving the island’s energy crisis will go a long way towards reducing utility costs, increasing economic efficiency, and reducing environmental degradation, amongst other benefits.

Housing

- The government of Puerto Rico has delineated a series of strategies for meeting the post-disaster housing needs on the island, but a comprehensive framework is needed.
- Given this situation, the Center for a New Economy (CNE) established the **Blueprint Initiative**: a research, knowledge exchange, and advocacy platform.
- Three key areas: land tenure, housing affordability, safe housing.

Fiscal Rules

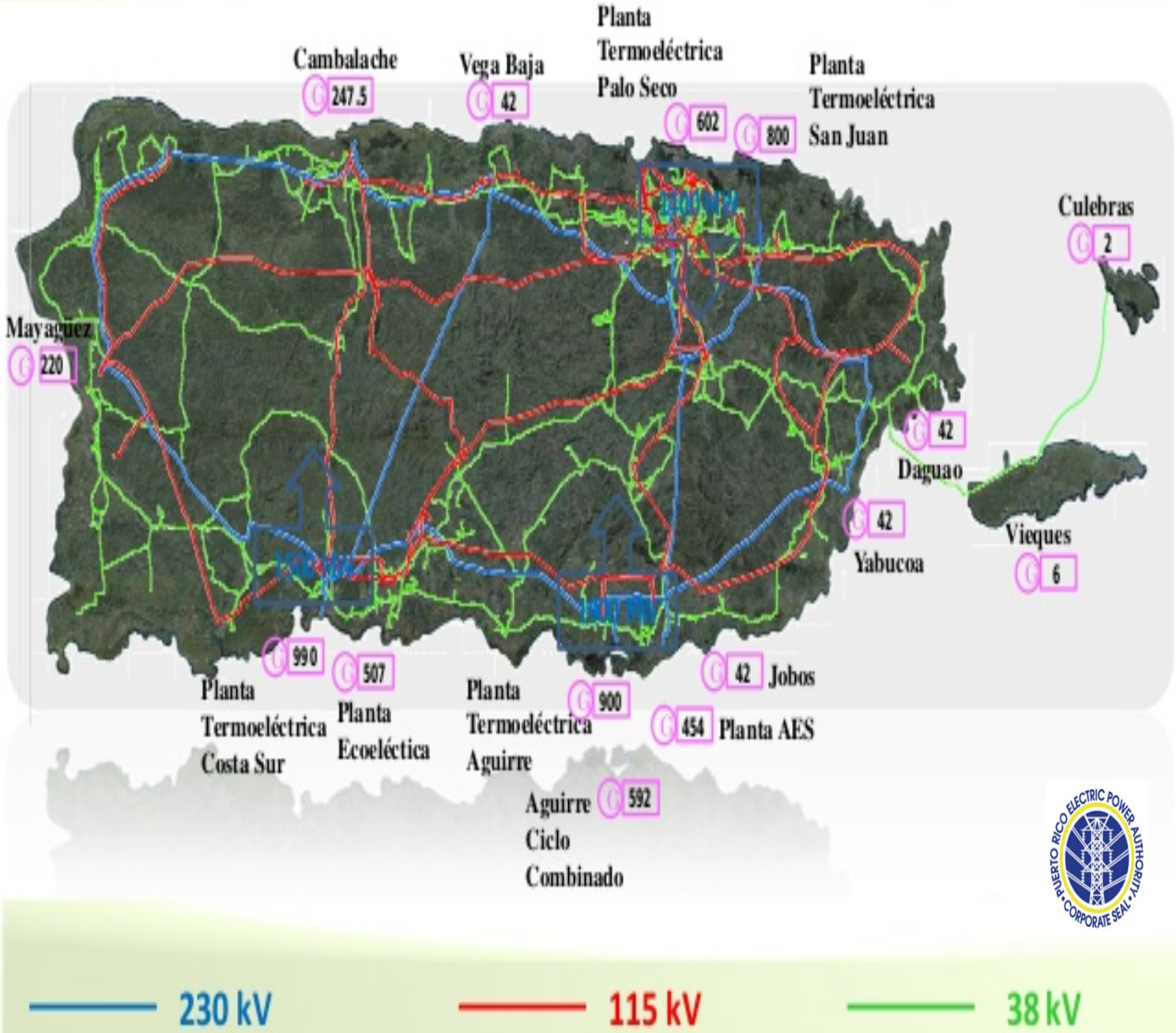
- Fiscal rules are mechanisms that allow for the establishment of monitorable fiscal targets and strategies.
- In 2016, CNE recommended the adoption of a Fiscal Responsibility Law with two components: (1) a simple, intuitive, and objective fiscal rule; and (2) procedural guidelines that support a large-scale overhaul of systems, institutions, and practices.
- Designing and implementing clear fiscal rules will also encourage institutional reforms to build state capacity.

Growth+

It seems clear that how Puerto Rico recovers from the disasters will determine how the island grows.

CNE20

Puerto Rico's Think Tank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Planta Ecoeléctica
Planta Termoeléctrica Aguirre
900
42
Jobos
454
Planta AES
Aguirre Ciclo Combinado
592
230 kV
115 kV
38 kV

Lessons (Hopefully) Learned From Hurricane Maria

- PR is part of the Caribbean “Continent of Islands” in the hurricane route.
- Vertical poles and transmission towers/lines crossing the central mountain range and tropical forests don’t hold up to hurricane-force winds.
- Solar holds up better.
- Communities NEED to participate in electric power generation and other energy issues.

Foundations for the Transformation

- **65% of residential roofs could generate all of Puerto Rico's energy** http://www.uprm.edu/aret/docs/Ch_1_Summary.pdf, p. 1-13 to 1-14.
- **The siting of solar systems on previously contaminated land.** See http://www.osti.gov/bridge.
- **We Want Sun** https://www.queremossolpr.com

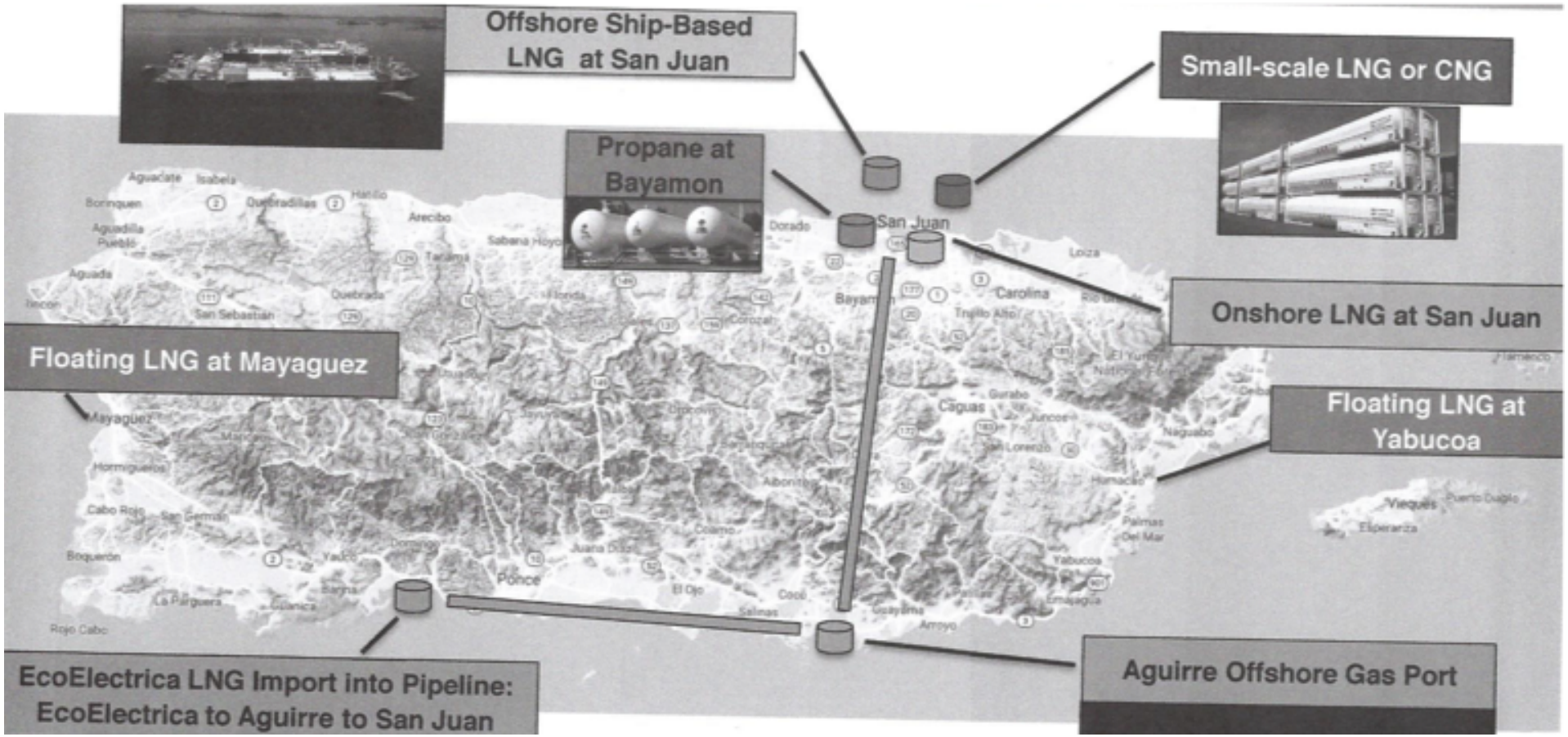
Viability-Power Electronics, Renewables

- **A Customer-focused Framework for Electric System Resilience**, Silverstein, A. et al.
- Voltage support
- Frequency support: stabilization following a disturbance, ramping and balancing, peak energy in summer
- **A Case Study of Residential Electric Service Resiliency thru Renewable Energy Following Hurricane María,** Irizarry, A. Montano, K, Alzate, S., Andrade, F.

Economic Viability of Rooftop Solar

- The draft Integrated Resource Plan (IRP) prepared by Siemens for the Puerto Rico Electric Power Authority (PREPA) (pages 8-30 and 8-46 of the IRP): Cost of customer-owned generation is significantly lower than the total rate.
- In spite of this, customer-owned solar is severely limited to about 10% of the generation mix in 2038.
- Credit Union financing for solar kits

Fuel Infrastructure Options



Source: Siemens

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~60,000 families denied FEMA assistance due to the lack of documentation on their property rights
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$8.3 B in CDBG-DR funds
$40 for a Title Clearance Program

Challenges:
Funds can end up displacing the poor, rather than supporting on site mitigation strategies when feasible.
(a) Focus on individual land rights
(b) Prohibition to rebuild within floodplain; use of advisory FEMA maps.

Fideicomiso created to avoid displacement and gentrification as an unintended result of the ecosystem restoration of the Martín Peña tidal channel.

Regularizes land tenure.

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Individual ownership:
Surface rights deeds presented to the Property Registry; and of participation bonds.

Surface rights can be:
- sold
- inherited
- Mortgaged

Recognition of property rights to the home.

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Colective ownership:
~200 acres of land, located at the heart of the San Juan Metropolitan Area

- THE LAND CANNOT BE SOLD

Benefits for the residents

- No absentee owners.
- Avoids political clientelism.
- Promotes empowerment and participatory democracy.
- Redistributes wealth.

Benefits for the city

- Long term affordable housing.
- Facilitates urban reform with support of the community, and allows for the participation of the private sectors.
- Rather than displacing the poor elsewhere, deals with poverty without destroying cohesion.

Thank you for joining us!

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