

World Bank Land Conference 2024: Securing Land Tenure and Access for Climate Action



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Towards a fairer society: the role of cadastral valuation for equity and land redistribution in Colombia

Green Growth Session: Land and Property Valuation for Sustainable Urbanization

May 15th 2024



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IGAC
INSTITUTO GEOGRÁFICO
AGUSTÍN CODAZZI



01 CADASTRAL UPDATING IN COLOMBIA >

02 EQUITY AND PROGRESSIVE TAX >

03 MEASURES AND STRATEGIES >

1

CADASTRAL UPDATING IN COLOMBIA


Evolution of the cadastral updating status 2016-2023



2016 FINAL AGREEMENT
36,1% Updated
375 Municipalities

El futuro es de todos

2018 1st YEAR DUQUE'S GOVERNMENT
21,7% Updated
255 Municipalities

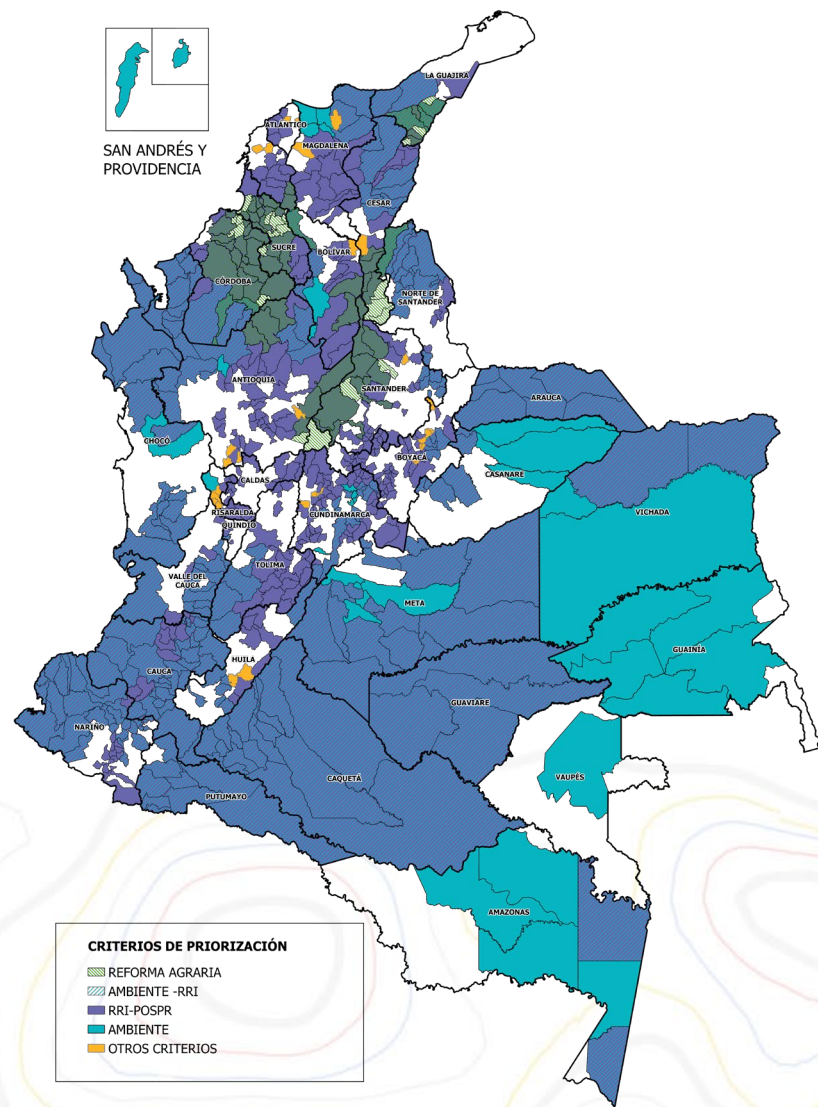


2023 JANUARY 2023 STATUS 1
9,63% Updated
123 Municipalities

2017 BASELINE
Before Duque's Government
33,3% Updated
289 Municipalities

2022 BASELINE FOR GOVERNMENT OF CHANGE
9,4% Updated
82 Municipalities

2024 JANUARY 2024 STATUS 1
12,4% Updated
141 Municipalities



Municipalities	Hectares	% Target
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660

90.4
Million

80%

570 Rural reform - POSPR

Environmental - Rural reform **231**

266 Environmental

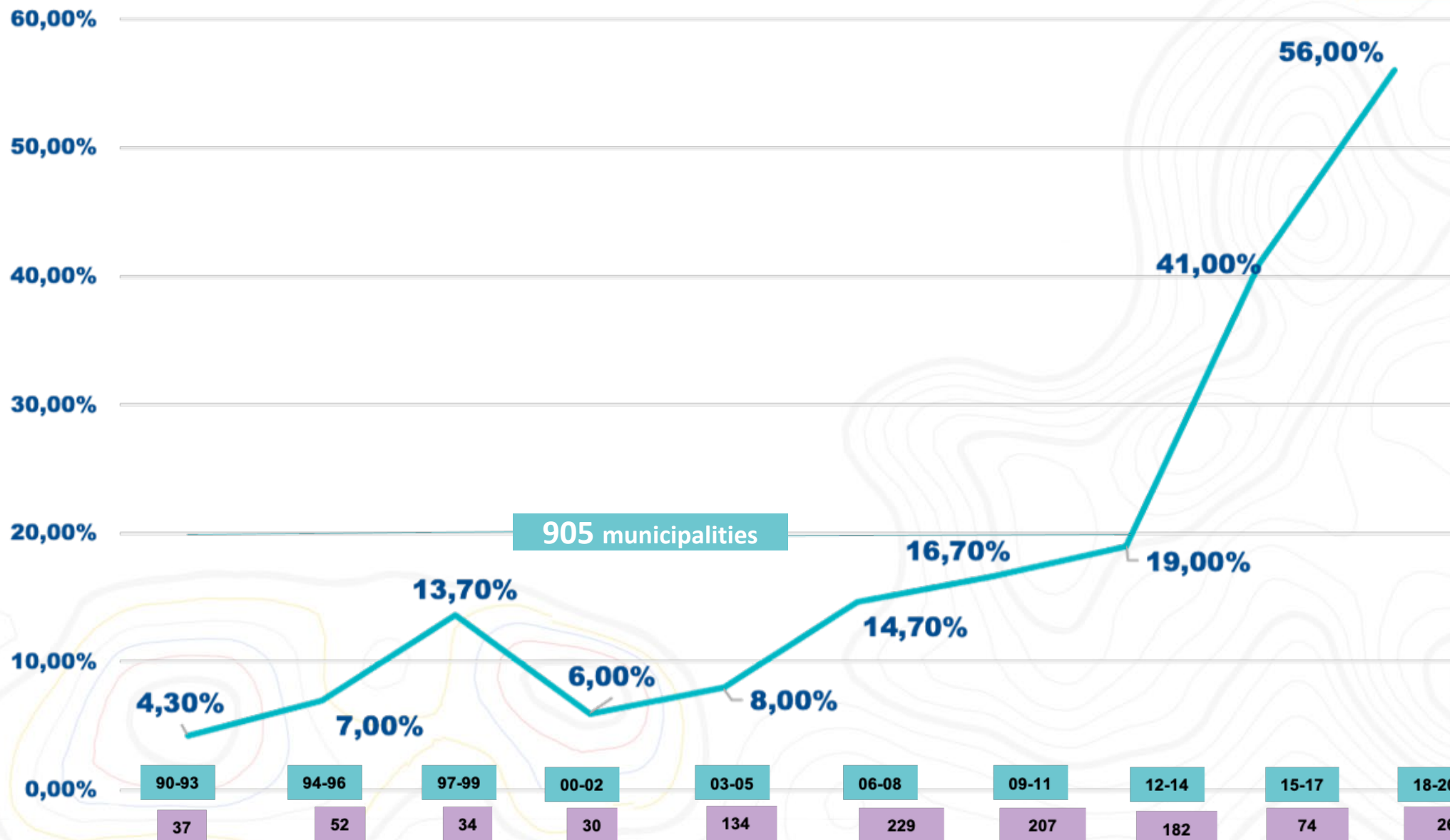
Rural reform **82**

32 Government Priorities

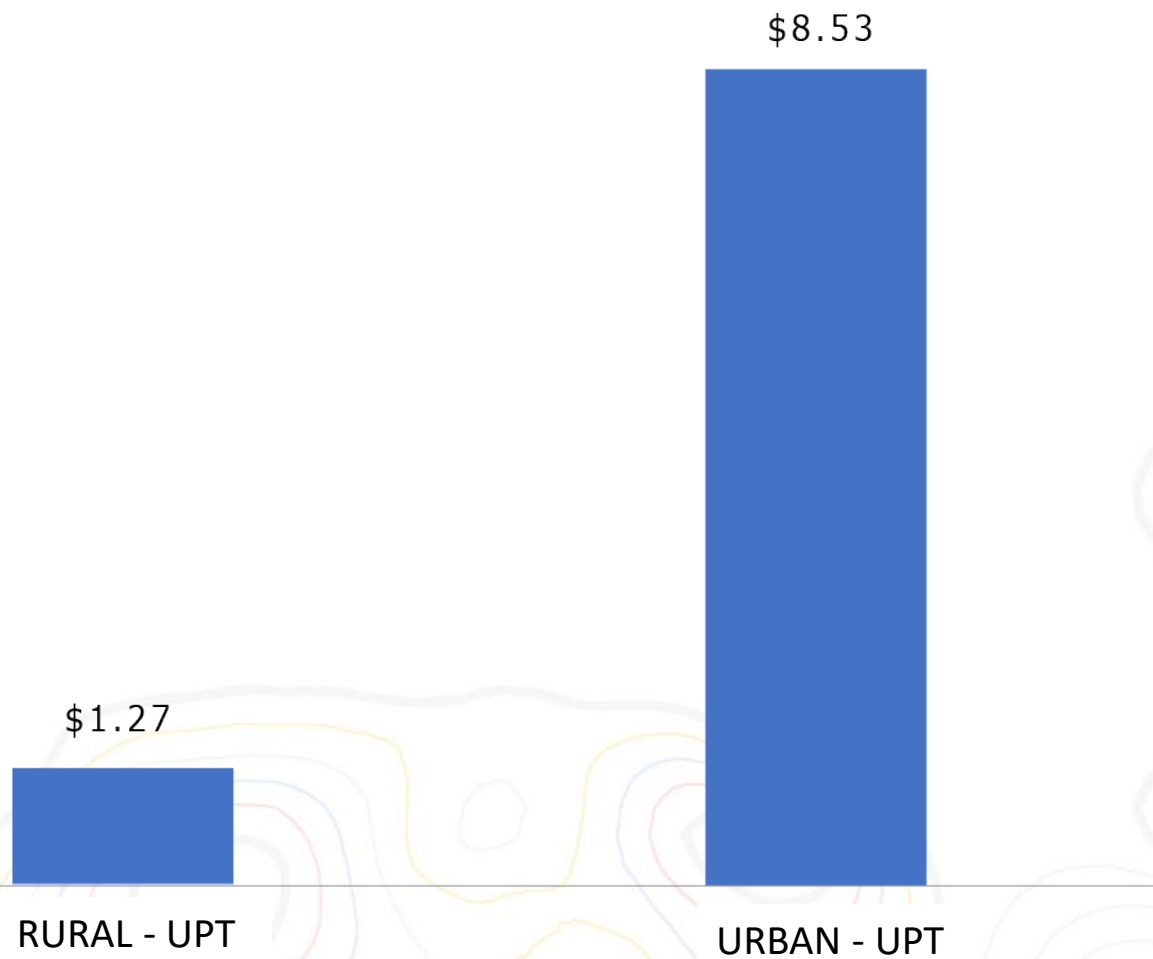
2

EQUITY AND PROGRESSIVE TAX

CADASTRAL - COMMERCIAL VALUATION RATIO 1990 - 2000



UNIFIED PROPERTY TAX COLLECTION 2022 (BILLIONS OF COP)



Of the **9.8** billion Colombian pesos collected in 2022, only **1.27** billion pesos (**12.9%**) correspond to rural properties, while **8.53** billion pesos (**87%**) come from urban properties

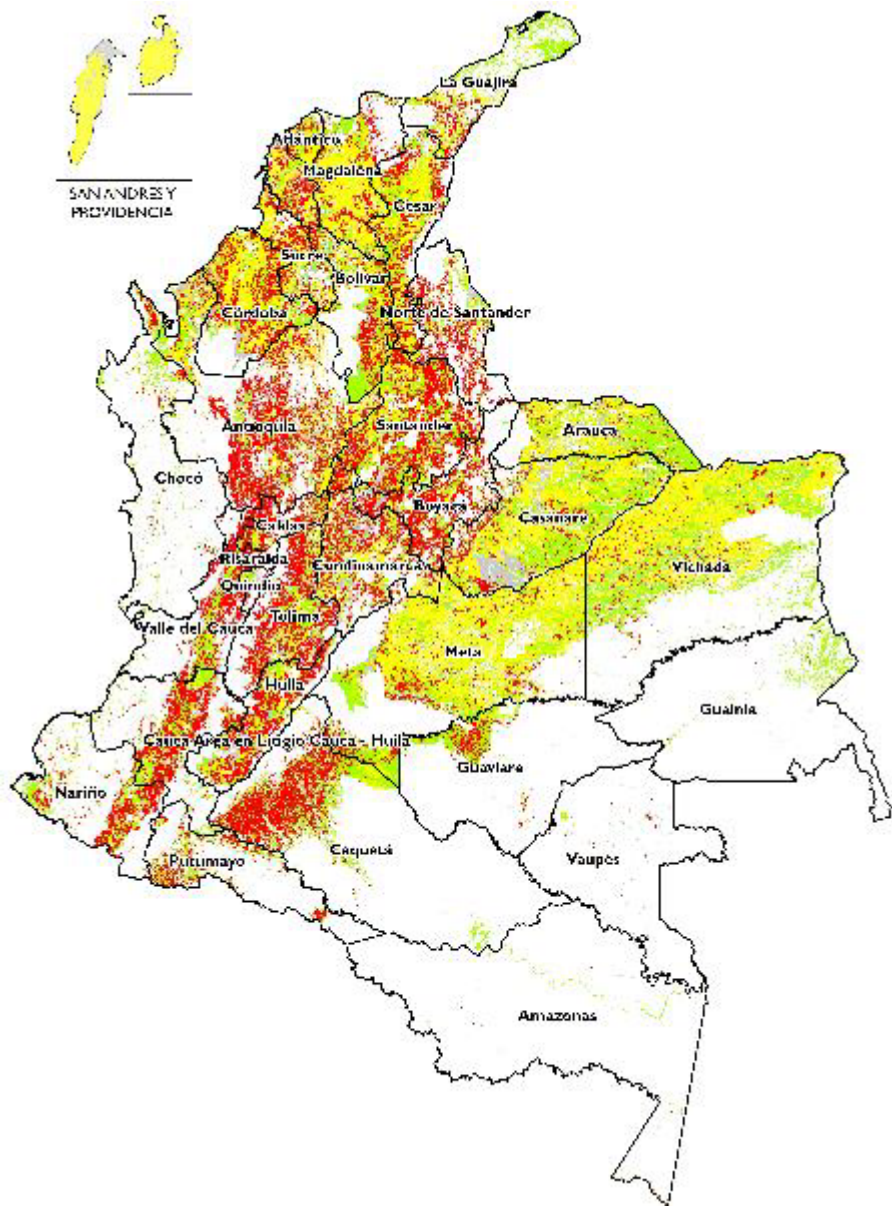
2022 UPT COLLECTION (BILLIONS OF COP)

MUNICIPALITY	UPT COLLECTION (MILLIONS OF \$)	PERCENTAGE OF TOTAL COLLECTED
Bogotá - Distrito Capital	\$ 3,604,687	36.8%
Medellín	\$ 869,722	8.9%
Santiago De Cali	\$ 722,121	7.4%
Barranquilla	\$ 386,447	3.9%
Cartagena De Indias	\$ 283,440	2.9%
Pereira	\$ 167,433	1.7%
Bucaramanga	\$ 157,424	1.6%
Envigado	\$ 128,843	1.3%
Ibagué	\$ 111,507	1.1%
Rionegro (Antioquia)	\$ 100,106	1.0%
Soacha	\$ 95,706	1.0%
Manizales	\$ 91,251	0.9%
Itagüí	\$ 87,622	0.9%
Villavicencio	\$ 83,062	0.8%
San José De Cúcuta	\$ 79,629	0.8%
Other municipalities	\$ 2,826,038	28.9%

71% of the property tax income is concentrated in **15** municipalities.

Of **\$9.8** billion collected nationally in 2022, **3.6** billion were collected in Bogotá (36,7%)

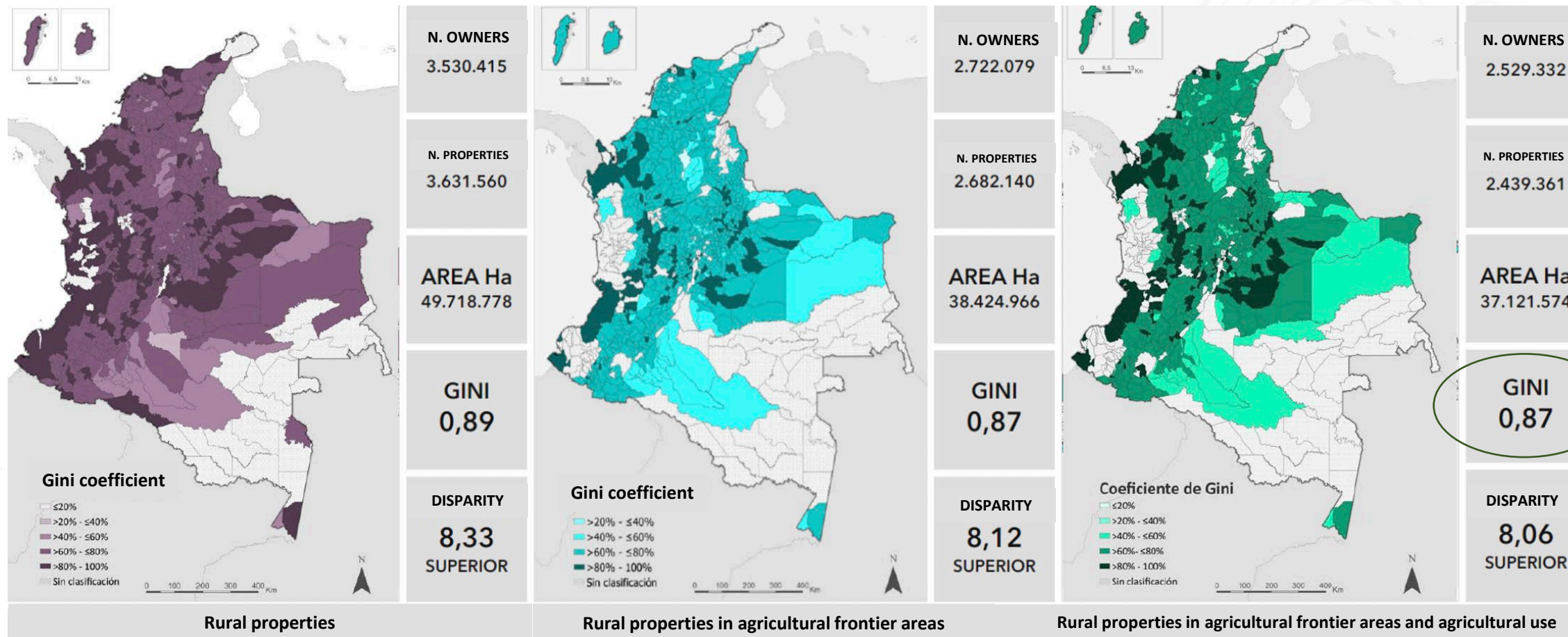
LAND USE CONFLICTS ON THE AGRICULTURAL FRONTIER



Type of conflict	Area (ha)	%
PROPER USE	14.400.847	33.6
OVERUSE	12.893.993	30.1
UNDERUTILIZATION	13.735.661	32
NON-LAN	1.480.293	3.5
WATER BODY	370.530	0.9
TOTAL	42.881.324	100

COLOMBIA LAND CONCENTRATION

Fragmentation and distribution of property in Colombia



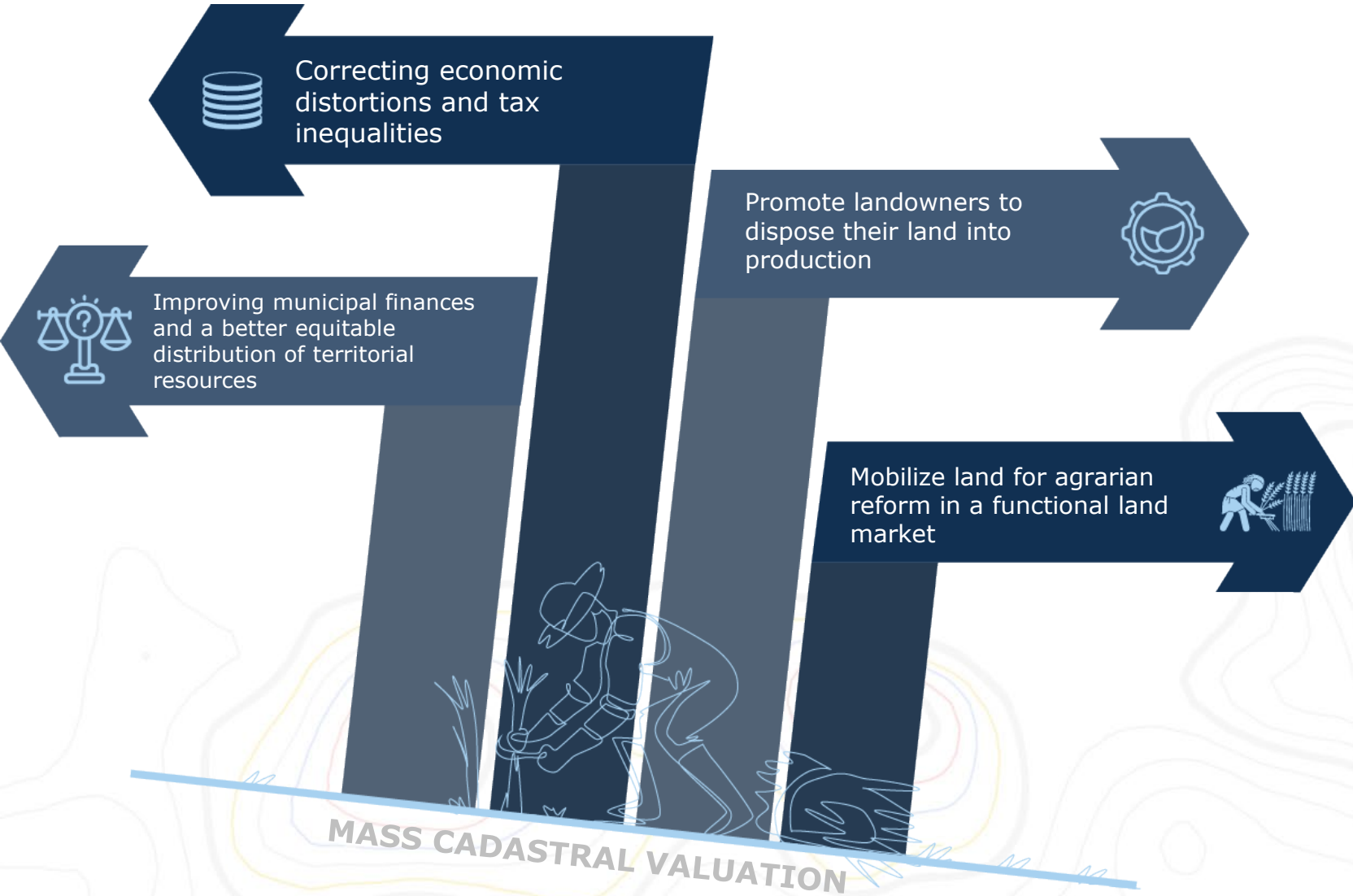
Rural lands in Colombia exhibit a high concentration, as evidenced by the **0.87** Gini coefficient

3

MEASURES AND STRATEGIES



MASS CADASTRAL VALUATION



LAND MARKET

This instrument seeks, among other objectives, to stimulate the land market by updating cadastral values so that progressive land taxes can contribute to the promotion of the Integral Rural Reform (RRI).

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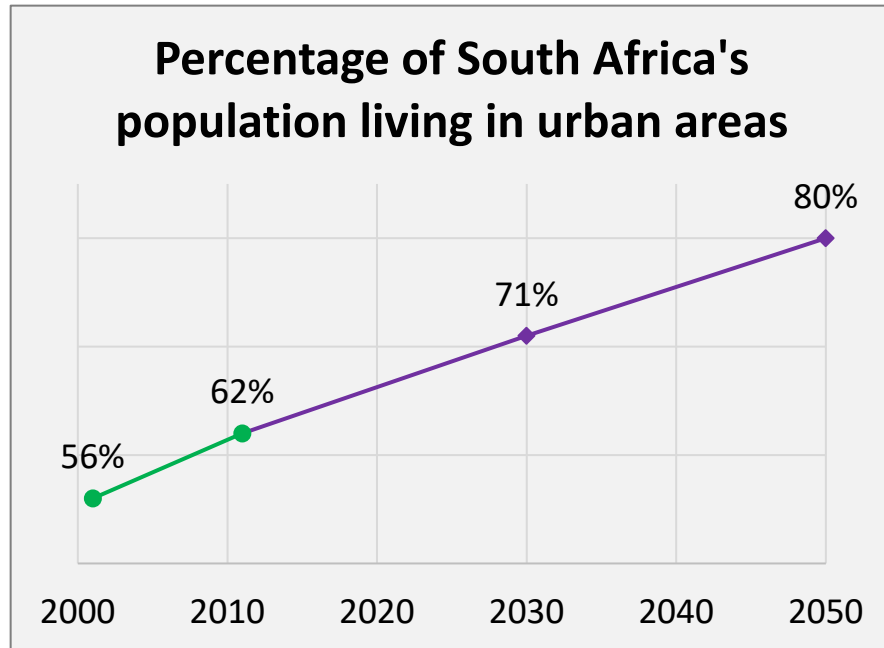
@igaccolombia

Leveraging land value for resilient urban development in South Africa

Anthea Stephens

15 May 2024

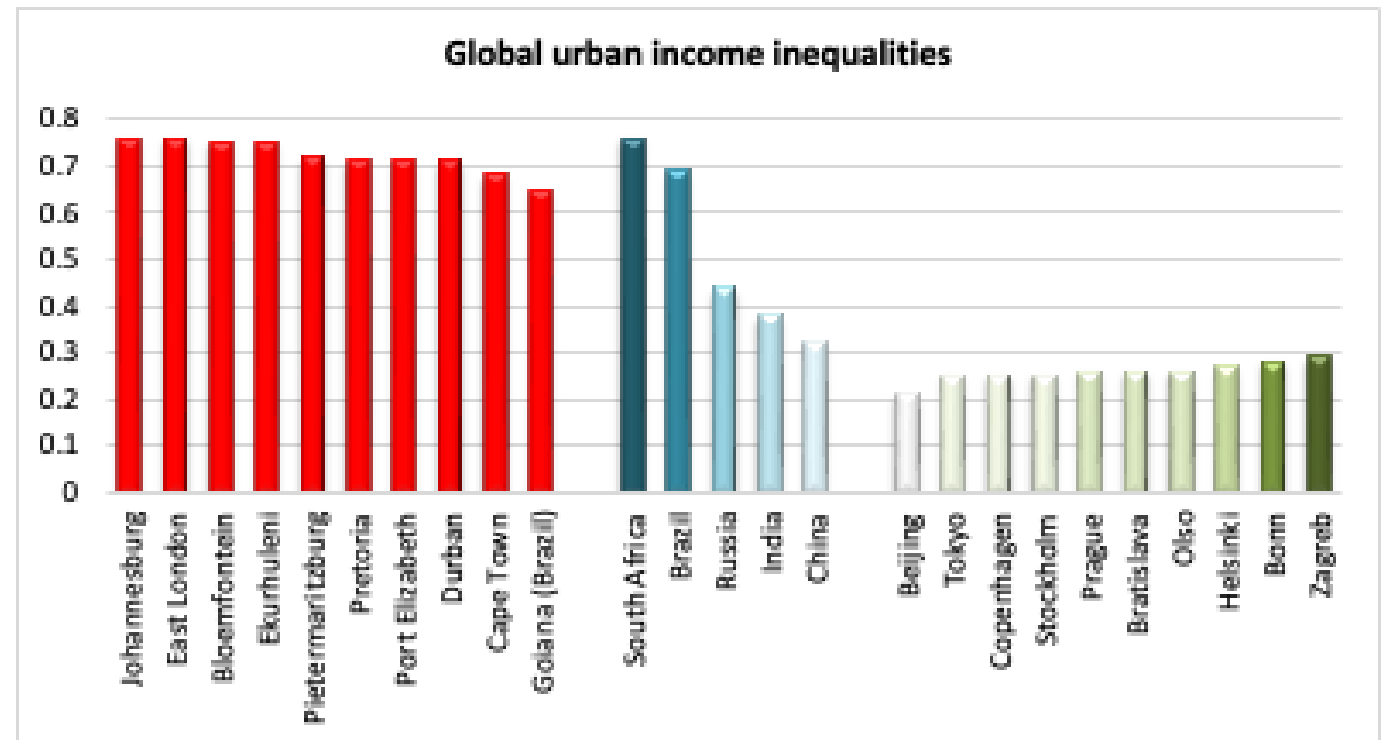
South Africa's urban challenges



- South Africa is already very urbanised, and urbanisation continues to increase
- South Africa is home to the most unequal cities on the planet

South Africa should be benefitting from an 'urban dividend', but:

- economic growth and job creation is insufficient and insufficiently inclusive
- current patterns of urban development are reinforcing spatial divisions created under apartheid.

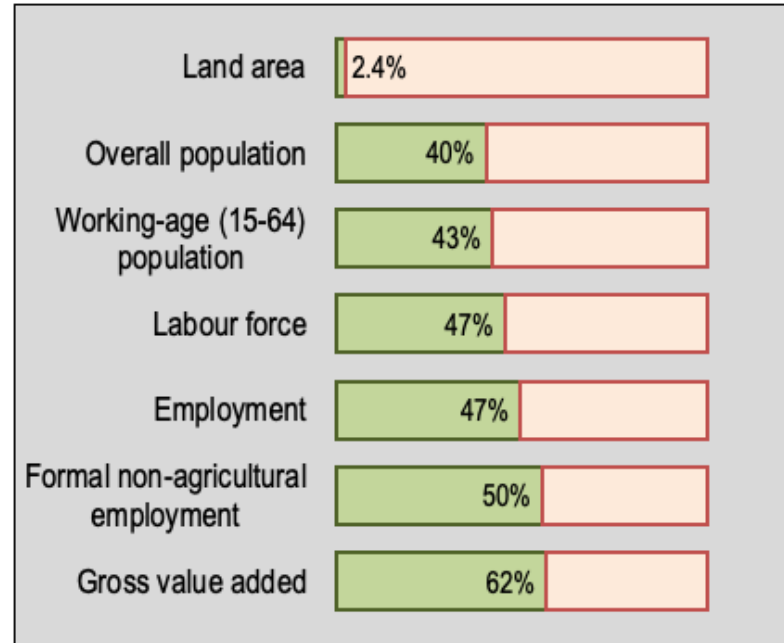




An urban legacy of inequality

- Rising unemployment
- Aging infrastructure
- Climate risk and vulnerability

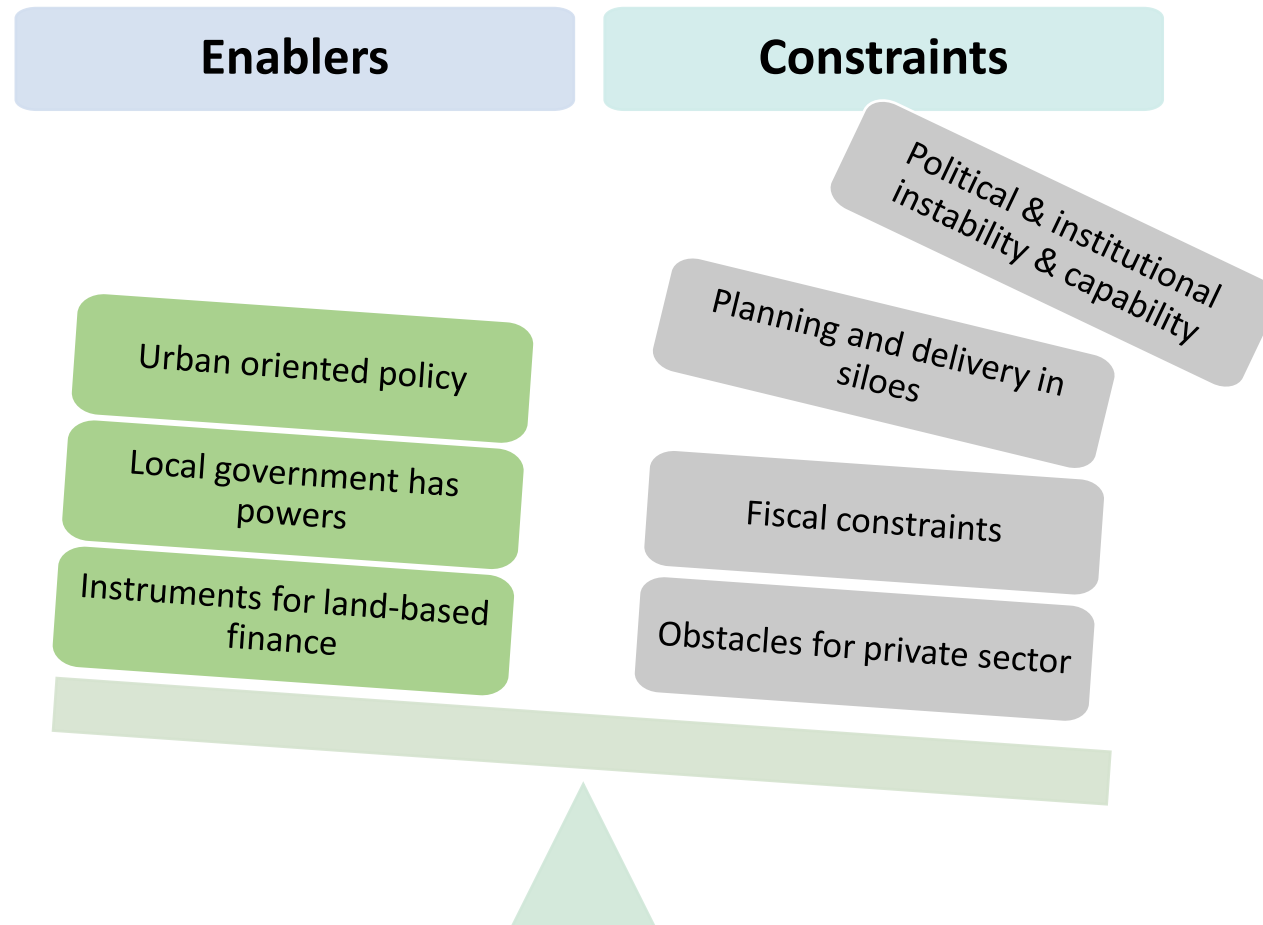
Harnessing the 'urban dividend'



Priorities

- Spatial and economic transformation
- Infrastructure delivery and renewal
- Leverage private finance
- Resilience

Supportive policy context undermined by institutional weaknesses



National Treasury works to manage risks and position cities as engines of growth

- Supporting cities to accelerate investment in support of spatial transformation
- Investments span the range of urban needs with a focus on advancing climate resilience and social equity
- Most effective where minimum conditions exist
- And cities have budgetary capacity and authority to make long term commitments (contracts and/or land use arrangements)



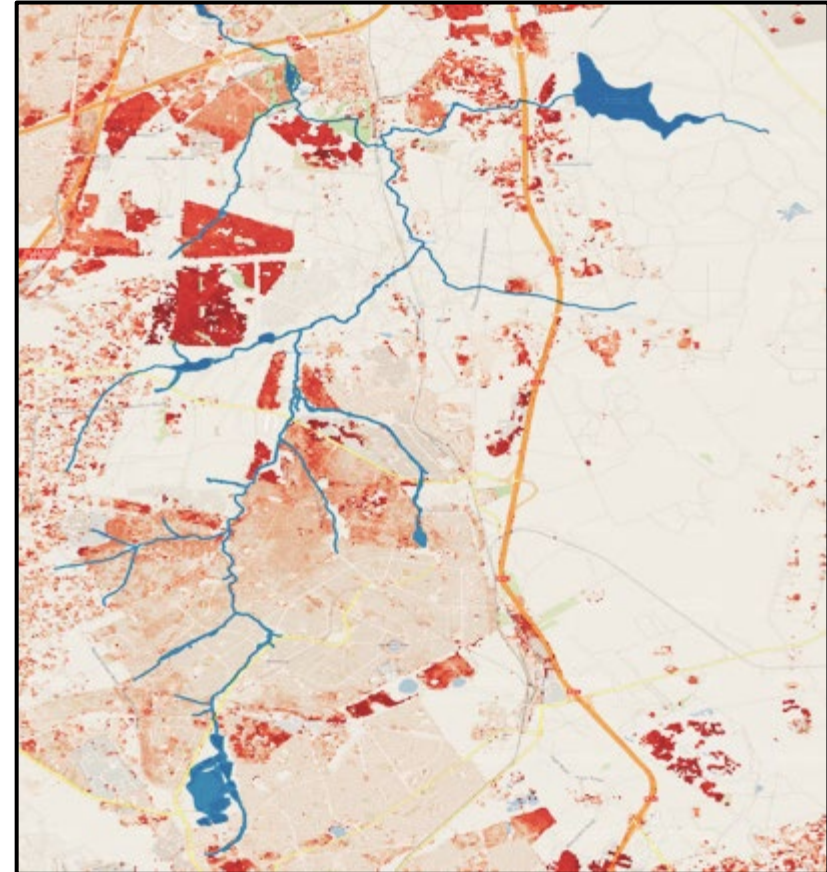
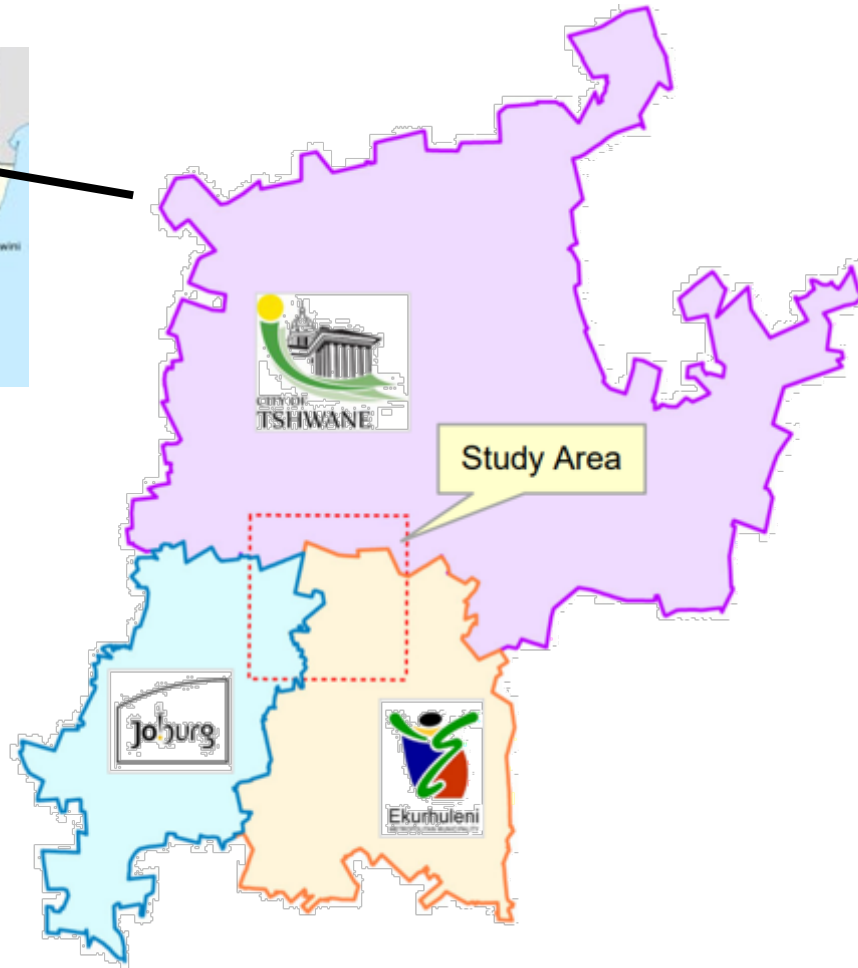
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A trans-municipal challenge for urban resilience

Ekurhuleni, Johannesburg & Tshwane
River & Wetlands Rehabilitation



Settlement encroachment



Failing wastewater treatment plants



Collapsed solid waste management



R77 Million Budget For Hartbeespoort Dam Rehabilitation

Published On: 30/11/2023
Categories: Environment, News

R11million / U\$600 000
approx. annual operational expenditure

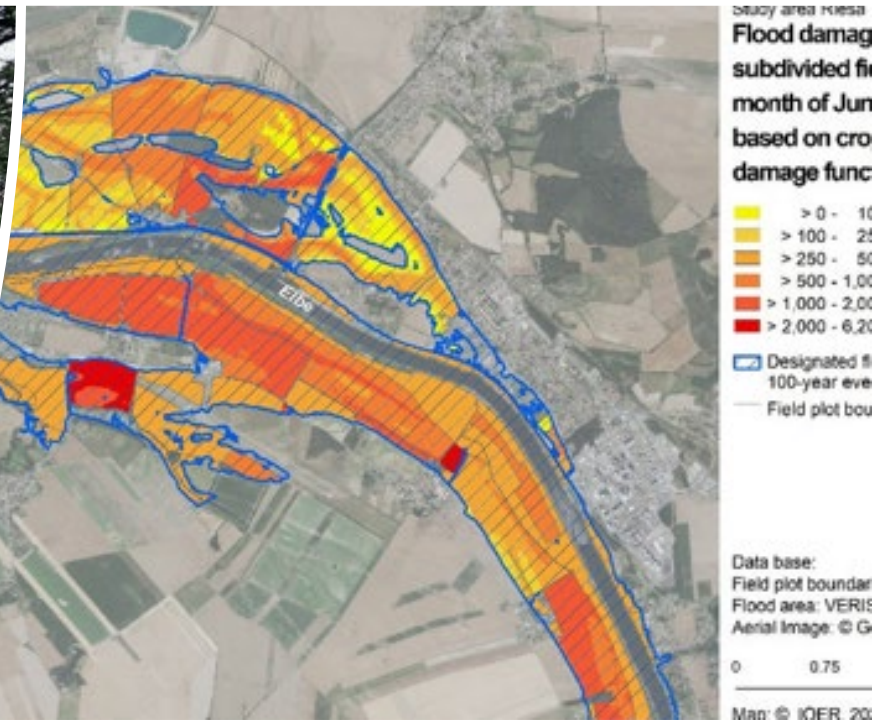


Downstream impacts include soaring insurance premiums, un-insurability, and decrease in property values.

From policy to implementation

Ekurhuleni, Johannesburg & Tshwane River & Wetlands Rehabilitation

- Integrated water management to improve water quality
- River restoration to improve water quality and unlock development
- Require funding model support, incl. LVC potential



Lessons

- **Coordination, trust and transparency are vital.** Arrangements for trans-municipal coordination and governance are needed to advance regional investments in urban resilience.
- **Minimum conditions, budgetary capacity and authority** to commit to long term contracts and/or land use arrangements.
- **Capability** is needed to advance projects from prefeasibility to transactions.
- **Appetite for risk and innovation** needs to be supported.
- **Addressing inequality** is fundamental to delivering resilience and growth.



Thank you



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Charting a Paradigm Shift: Two-Decades of Property Tax Reforms in the Philippines

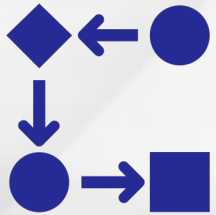
Insights on Driving Revenue, Equity, and Governance

Niño Raymond B. ALVINA
OIC Undersecretary
Department of Finance
The Philippines

What happened in the last 2 decades....

- Setting the LAM Agenda: national, subnational
- Fiscal governance: focus on property valuation, taxation
- Adopting a policy and legislative approach
- Key innovations, interventions
- Scaling up, sustaining the efforts: driving reforms to optimize benefits
- Where we are now, future directions

Land Administration and Management (LAM) Agenda



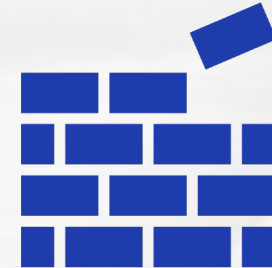
Adopted in early 2000s as a long-term government commitment: **programmatically phased approach** at the national, subnational levels with centralized/decentralized functions



Focus was largely on **land administration and management policy**, especially for **tenurial security and titling mechanisms**



But **property valuation and taxation are core LAM components too**—for revenue, equity and governance considerations



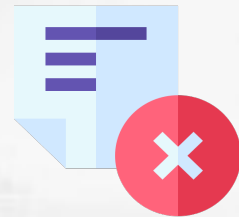
Initiated, sustained with **program and project loans and technical assistance grants** from the World Bank (2001-2012), Australian Government (2001-2010), UN FAO, and Asian Development Bank (2014 to present), and **counterpart funds in the annual government budgets**

Fiscal governance: *focus on the property valuation, taxation sector*



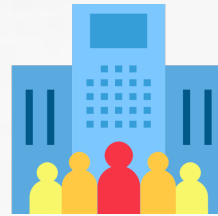
Chaotic, largely dispersed

Multiple systems; varying methods in 20+ agencies, local govts; tendencies to overvalue when government pays, very low when government collects



Inefficient administration, outdated values

Neglected duty: politicized in the local govts: most local govts are not compliant with the revaluation mandate



No single authority; weak capacity

Lack of formal education programs, weak professional regulation, devt, capacity building



Lack of reliable, property database

Dispersed data sources, outdated land use plans, no integrated spatial framework



Property not optimized as stable source of revenues

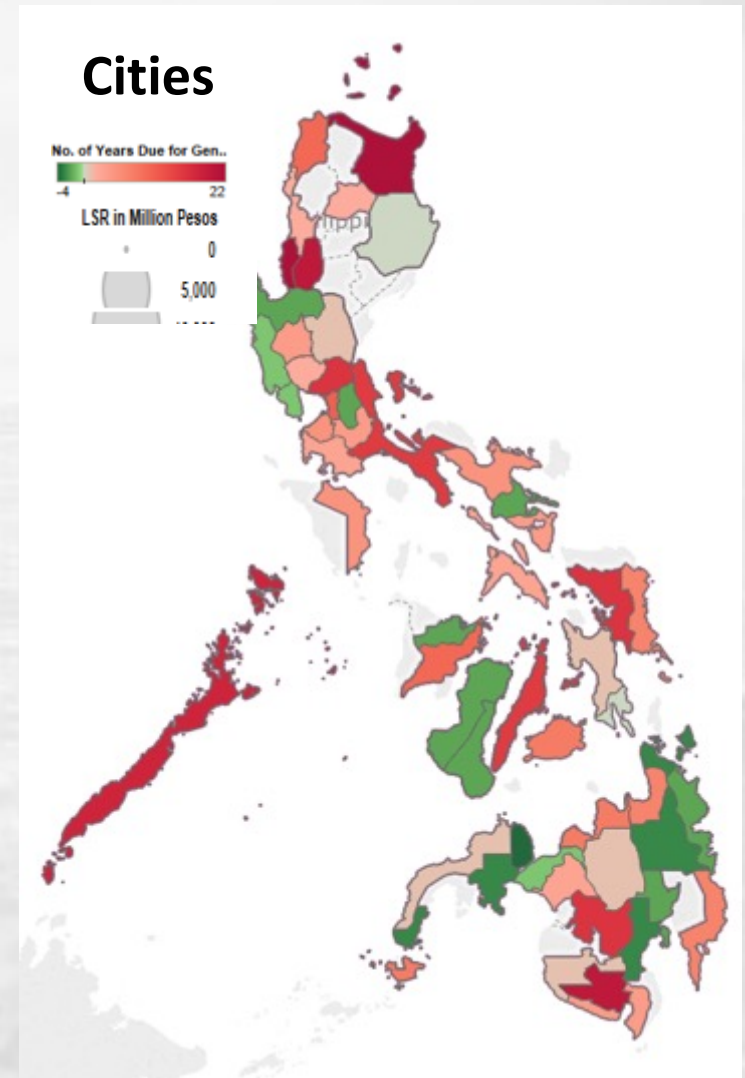
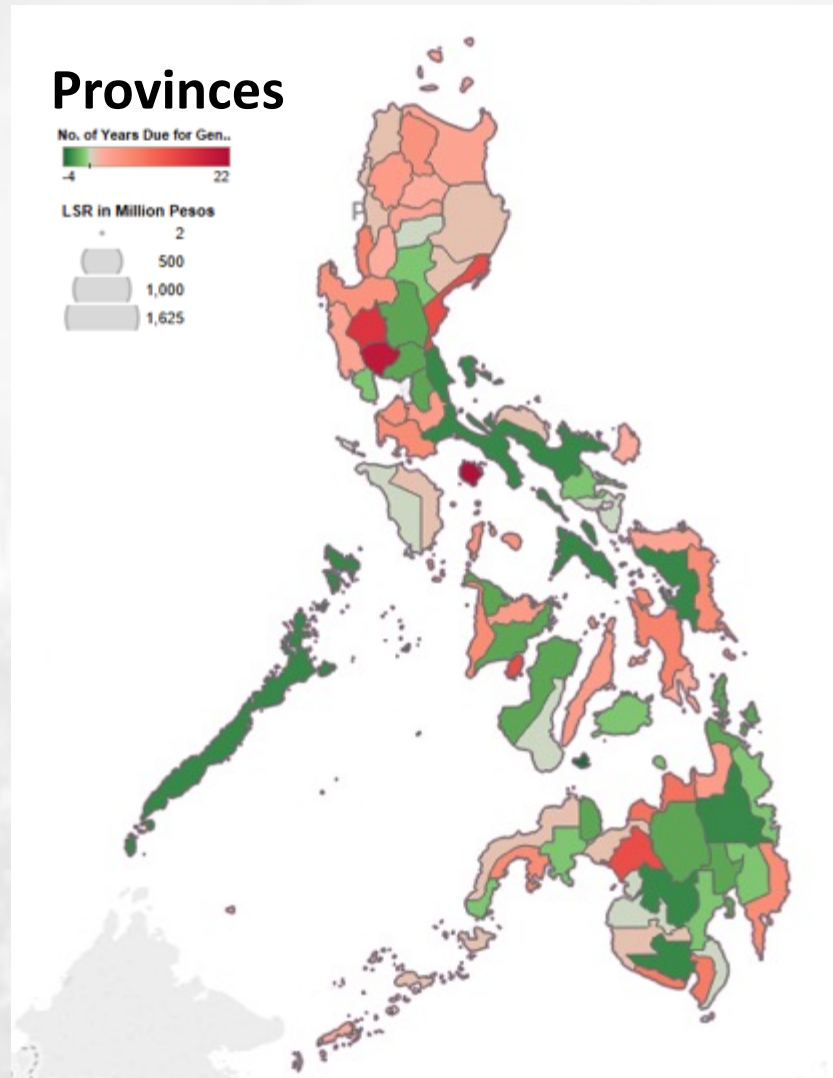
Multiple, high taxes at national/SNG levels; two bases for same purpose, weak enforcement

Severely outdated property values

Before the pandemic, only 37% of SNGs have updated valuations.

About 98 out of 145 cities, and 45 out of 81 provinces do not follow the legal requirement to revalue properties every 3 years.

Urban SNGs, where property transactions are high, base their taxes on mostly outdated tax rolls.



Property taxes imposed by SNGs, NGs

Local Government Impositions

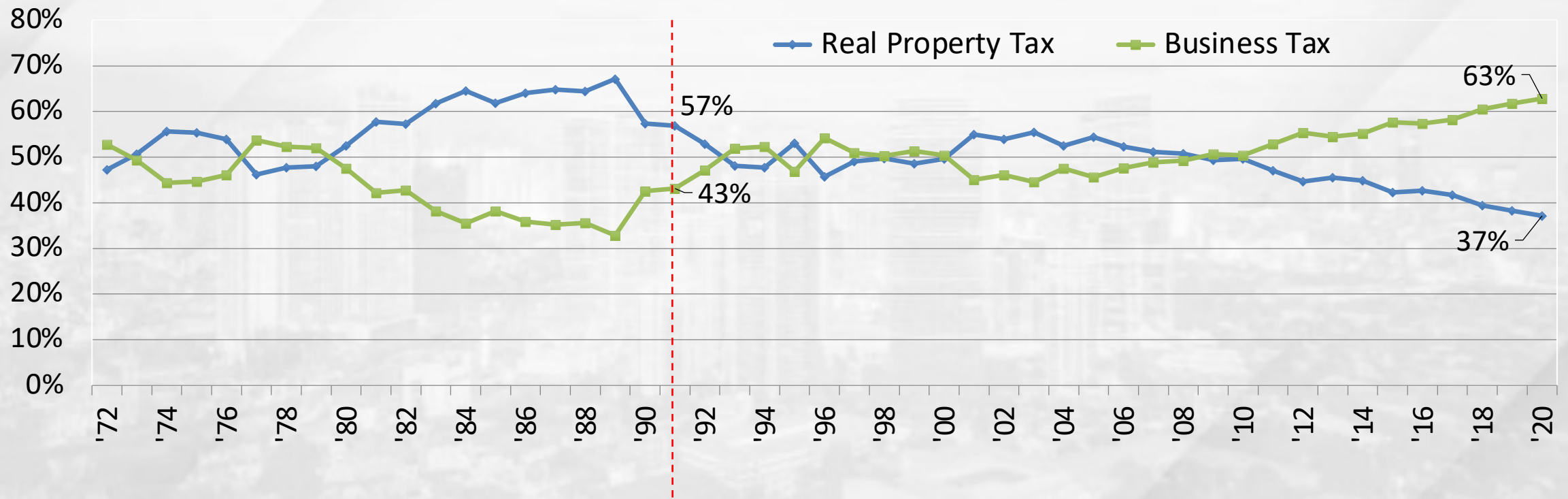
- Basic Real Property Tax (up to 1% or 2%)
 - Special Education Fund (up to 1%)
 - Idle Land Tax (up to 5%)
 - Socialized housing tax (0.5%)
 - Special Levy (up to 60% of cost of local project)
 - Tax on Transfer of Property Ownership (0.5% to 0.75% of 1%)
-

National Government Impositions

- Capital Gains Tax (6%)
 - Documentary Stamp Tax (1.5%)
 - Donor's Tax (6%)
 - Estate Tax (6%)
 - Creditable Withholding Tax (up to 6%)
 - VAT (engaged in business) (12%)
-

SNGs' property tax revenue performance had been declining...

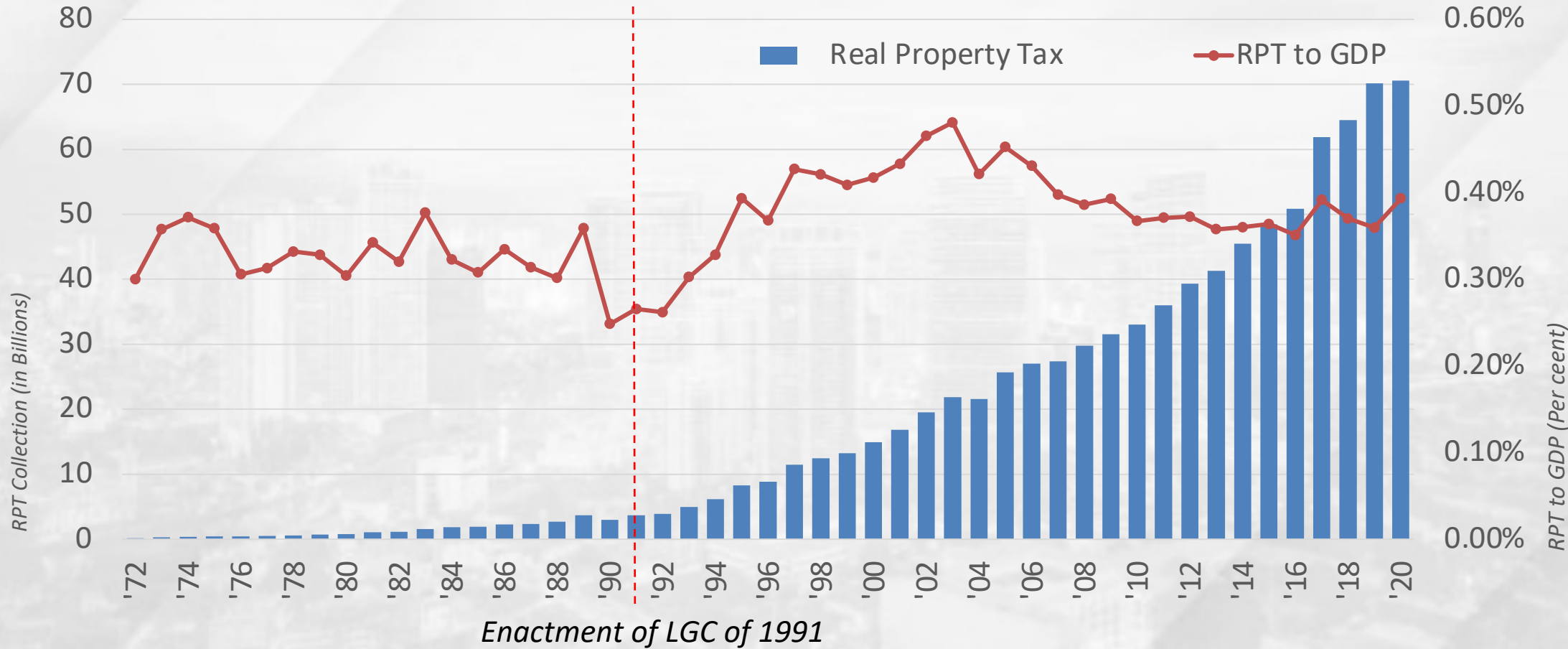
Business tax revenues easily overshadowed property tax revenues in the last 30 years



Enactment of LGC of 1991

Source: eSRE Data as of August 2020, DOF-BLGF

Property tax share to GDP had also been underperforming...



Source: eSRE Data as of August 2020, DOF-BLGF

Adopting a policy and legislative approach... +++

Property valuation, taxation at the core of LAM agenda

1



Enhancing the legal framework for property valuation and taxation

2



Developing new regulatory policies and guidelines, and capacity building

3



Adoption of valuation standards and compliance enforcement

4



Legislating the Proposed Real Property Valuation and Assessment Reform Act (RPVARA)

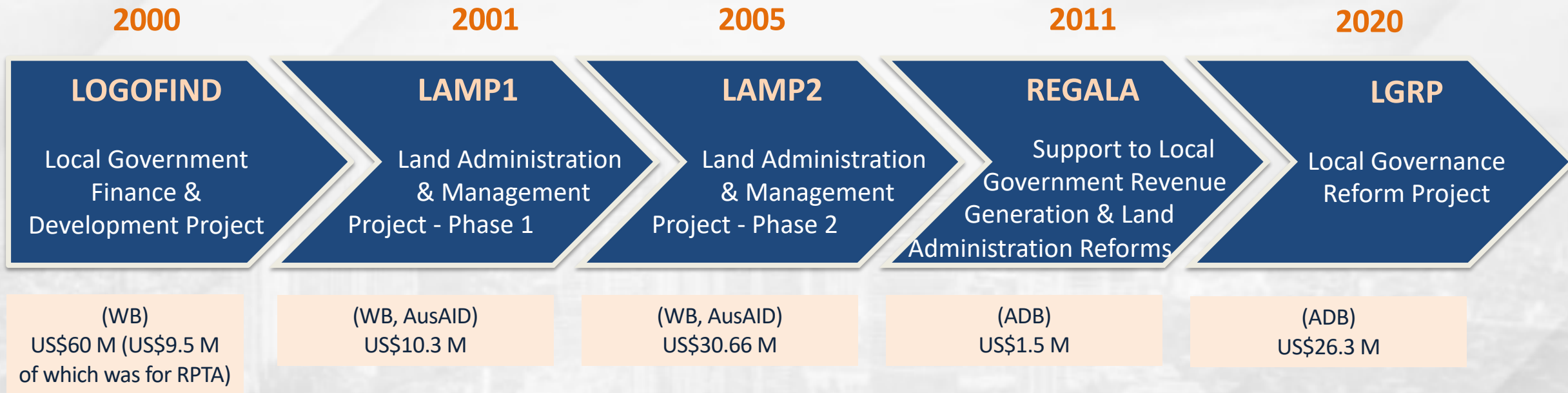
5



Continuing the reforms through a comprehensive approach through the Land Governance Reform Project (LGRP)

Programmatic, phased approach under the LAM agenda

Key investments on real property tax administration reforms



- These project loans, totaling US\$78.26 M, were supported by counterpart funds of the Philippine Government
- In between projects, various technical assistance (TA) grants and small grant facilities were also provided
- Some of these projects undertook loan reduction and financing adjustments
- Other multilateral organizations also extended support, e.g., UN FAO, GIZ, etc.

Key innovations, outputs

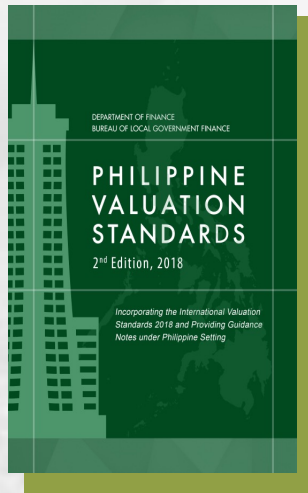
Strengthened the policy, regulatory and institutional setup



- **Real Estate Service Act (RESA) of 2009**, or Republic Act No. 9646, set the human resource regulatory regime for professionals engaged in real estate brokerage, appraisal and consultancy. This led to the professionalization of local government assessors, appraisers and assessment officers. Presently, we have 6,000+ active licensed appraisers.
- **Land Sector Development Framework (LSDF)**, which adopted the Voluntary Guidelines on the Governance of Tenure (VGGT), set the policy framework for an efficient LAM system by 2030
- **DOF Roadmap for Property Valuation and Taxation** led to scoping the 10-year timeline to scale up the reforms through phased, regional replication strategy of LAMP lessons
- **Executive Order No. 833** provided the legal basis to establish an interim sustainability measure, through the creation of the Property Valuation Office (PVO) in the DOF, to prepare the organizational transition when the valuation reform legislation is passed
- **Proposed Real Property Valuation and Assessment Reform Act (RPVARA)** as the ‘game-changer’ to fully institutionalize the reforms envisaged under the LAM agenda

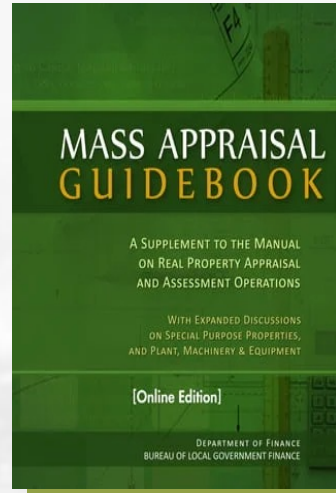
Key innovations, outputs

Enhanced the valuation standards, manuals, and guidelines



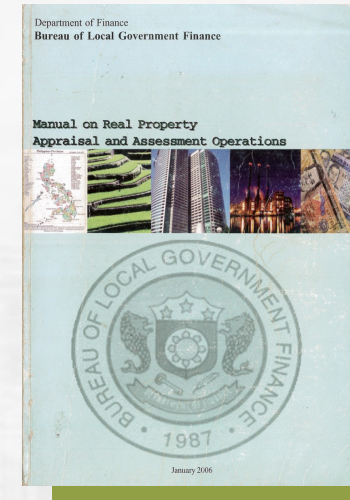
Philippine Valuation Standards

- Adopting the International Valuation Standards Council (IVSC)
- Essential addition to the rules and regulations on valuation and assessment adopted in 2009 and 2018



Mass Appraisal Guidebook

- Official rules and regulations on property appraisal and assessment
- Guidance on the market-based valuation for LGUs adopted in 2010



Assessor's Manual

- Provides the statutory, administrative, appraisal and assessment aspects of real property taxation
- 2nd Edition adopted in 2023

Other Issuances and Strategies in addressing low compliance in updating the schedule of market values

- DOF-DILG Joint Memorandum Circular (JMC) No. 2010-01 enjoining LGUs to update property valuations
- Publishing in the national dailies the list of non-compliant LGUs and the foregone revenues in RPT to inform the public
- Letters to the local chief executives by the Secretary of Finance/BLGF Executive Director

- ✓ *All these issued by DOF/BLGF*
- ✓ *BLGF as Institutional Member of IVSC*

Key innovations, outputs

Expanded the capacity development and formal education programs

- Piloted implementation of reforms directed at 15+ cities
- Formal land valuation, management courses of UP Open University
 - Continuing professional development courses
 - Diploma, master's programs on property valuation
- Extensive trainings on PVS, Basic Course on Mass Appraisal, tax policy studies for all SNGs
- Information drives, roadshows, caravans, legislative briefings
- Broader support to selected LGUs through Innovation Support Fund, grants, LGU-led rollout, replication of reforms



On to a paradigm shift...

BusinessWorld
A NEWSPAPER IS A PUBLIC TRUST

ISSUE 99
256 4-5 6-7 9 10-11 184 2

Trade drives up volume | SMIC sees Q4 growth | Kidnapped teen free | New rules for GFIs?

BY DIANE CLAIRE J. JIAQ, Reporter

LGUs moving to hike real property tax take

COA urges LGUs to use latest fair market value
By Gregg M. Rubio/MIT | Updated November 1, 2011 - 12:00am

Tweet 0 | Share 0 | googleplus 0 | Email 0 | Like 0

CEBU, Philippines - The Commission on Audit has asked local government units to implement a schedule of fair market values in realty tax collections instead of the old one.

COA noted that some cities and municipalities are not adopting the revised appraisals and as a result, the collection of real property taxes thus depriving them of additional income for various projects and services.

Land valuation sector endorses reforms to PNoy

The land valuation sector, comprising the government and the private sector attending the 1st National Congress on Property Valuation and Taxation unanimously endorsed the adoption of valuation and taxation reforms, particularly the passage of the Valuation Reform Act (VRA) bill, as a priority reform agenda of the Aquino administration.

President Aquino, when he was still senator in the 14th Congress, supported the reforms by co-sponsoring the bill.

Stakeholders back land valuation reform bill

Updated July 26, 2010 - 12:00am

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MANILA, Philippines - Various real estate and property stakeholders from the government and the private sector unanimously urged President Aquino to certify the Valuation Reform Act (VRA) bill as part of his priority reform agenda. The Senate version of the bill is numbered 3510 while the House version is numbered 7094.

Manila Bulletin
THE NATION'S LEADING NEWSPAPER

E-mail: business@mb.com.ph

To partly lessen IRA dependency LGUs update land valuation schedules

By CHINO S. LEYCO

Five provinces and 10 cities in the country have already updated their schedule of market values (SMVs) for real property tax assessments in response to a joint circular issued last year by the finance and local government departments to raise more revenues and make local government units (LGUs) less reliant on the internal revenue allotments (IRA).

Joint Memorandum Circular 2010-01 issued in October last year enjoined all LGUs to update their SMVs, used by local assessors as basis for appraising properties for real property tax purposes.

As of November this year, those that already complied were the provinces of

Pangasinan, Cavite, Rizal, Romblon and Compostela Valley and the cities of Santiago, Palayan, Antipolo, Taguig, Trece Martires, Calapan, Kabankalan, Bayawan, Zamboanga and Davao.

By next year, other 12 provinces and 26 cities are also expected follow suit.

"Using an updated SMV as basis in the assessment of real property tax increases LGUs' capacity to generate revenue from real properties so that they do not depend much on their share of IRA," said Salvador M. Del Castillo, OIC executive director of the finance department's Bureau of Local Government Finance (BLGF).

IRA is the LGUs' share of revenues from the national government mandated under Section 284 of the

Local Government Code with provinces and cities allocated 23 percent of total IRA each, municipalities with 34 percent share, and barangays with 20 percent.

"By making SMV current, real property tax base expands, thus, provides LGUs the opportunity to generate additional income which can be used to finance various projects and improve delivery of basic services," Del Castillo explained.

He noted that under the law, LGUs should conduct a general revision of assessments and property classification every three years in order to reflect true market values of properties. However, this has not been followed by most LGUs.

Data from the BLGF, which has su-

per vision over all LGU treasurers, showed that only 28 percent of the provinces and 22 percent of the cities in the country have revised their SMVs as of its last revision in 2008.

To date, a total of 29 provinces and 84 cities have yet to revise their SMVs with basic assess-

Reforms in real property valuation to empower LGUs – ULAP chief

May 12, 2023, 10:10 pm

MANILA – Union of Local Authorities of the Philippines (ULAP) national president, Quirino Governor Dax Cua, has called for reforms in the country's real property valuation to empower local government units (LGUs) and improve their service delivery.

During the memorandum of agreement signing for the Local Governance Reform Project of the Department of Finance Bureau of Local Government Finance (DOF-BLGF) on Thursday, Cua emphasized the importance of legislating a Valuation Reform Act to enhance local governments' revenue generation capabilities and resource mobilization.

Lacson bats standard property valuation

By Merlinda A. Pedrosa, May 16, 2009

SENATOR Panfilo Lacson, chair of the Senate committee on ways and means, Friday pushed for a uniform appraisal of real estate properties, saying the move will increase the value of properties.

COMPREHENSIVE TAX REFORM PACKAGE 3

PROPERTY VALUATION REFORM

- A single valuation base eliminates wide disparities and therefore achieves consistency in real property valuation.
- Enhanced LGU financial self-sufficiency results in genuine and meaningful local autonomy, as guaranteed by the Constitution and the Local Government Code.
- Higher investor confidence is reaped through the adoption of globally benchmarked valuation standards and a higher degree of professionalism in real property valuation.
- Reduced government costs arises from the reduction of unnecessary expense due to conflicting appraisals, which lead to court litigations, project delays, and court judgments.
- Uniform standards lead to the harmonization of real property valuation among different government agencies.
- A comprehensive database yields greater transparency in land transactions and translates to confidence in the real estate market.

Republic of the Philippines
PHILIPPINE NEWS AGENCY

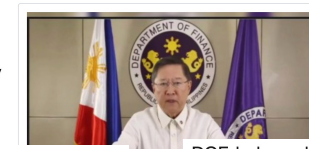
HOME NATIONAL PROVINCIAL OPINION BUSINESS FEATURES HEALTH FOREIGN SPORTS TRAVEL ENVIRONMENT SCITECH

ADB-backed project to help LGUs boost revenues

May 18, 2021, 1:48 pm

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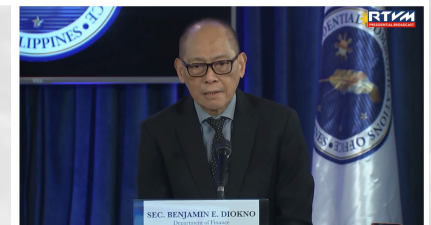
MANILA – Finance Secretary Carlos Dominguez III said Tuesday an Asian Development Bank (ADB)-funded project designed to boost the revenue-raising capacity of local government units (LGUs) will help the Philippines continuously build its fiscal resilience as it undertakes its program for economic recovery from the prolonged coronavirus disease 2019 (Covid-19) pandemic.



DOF-led zonal value updates on real properties to bolster LGU revenue

November 28, 2023
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Union of Local Authorities of the Philippines (ULAP)



The Department of Finance is keen on pushing for the reform on the updating of valuation of real properties in the country to boost the revenues of local government units.

In a press briefing in Malacañang on Tuesday, Finance Secretary Benjamin Diokno said that under the reform, the DOF will lead the updating of valuation of real properties instead of the LGUs.

Diokno implied that there may be instances that local politicians may pass ordinances updating their respective zonal values but at their vested interest. Such problem can be addressed under the new policy once implemented.

On to a paradigm shift...



Multiple land valuation systems and methodologies used by at least 23 national government agencies and 1,712 LGUs, including private individuals and institutional appraisers—each using their own systems and measures, have resulted in as many conflicting values for the same piece of real property.

Senator Ping Lacson
on unifying standards, processes for land valuation
Press release
July 11, 2018

RPVAR APPROVED ON THIRD AND FINAL READING IN THE SENATE



“A dream has echoed in the halls of Congress—a single, transparent, and updated valuation system. Today, that vision inches closer to reality after regress, debate, and meticulous consideration of amendments. Our committee has crafted a proposed measure that stand to significantly benefit our taxpayers and even our local government units.”

**CHAIRPERSON OF THE SENATE COMMITTEE ON WAYS AND MEANS
SENATOR WIN GATCHALIAN**

Photo courtesy of Senate PRIB

DOFPH DOF_PH DOF PHILIPPINES DOF.GOV.PH

Salceda: Real property valuation reform bill up for President's signing

Business · Biz Plus



Rep. Joey Sarte Salceda

By **Manila Standard**

March 31, 2024, 8:25 pm

Manila

2-year amnesty on unpaid RPT contained in reform bill awaits Marcos signature



AP File

Kevin Lagunda

Published on: Apr 15, 2024, 1:19 am

HOMEOWNERS and businesses with unpaid real property taxes may soon receive a reprieve. This, as the proposed Real Property Valuation and Assessment Reform (RPVAR) Act, currently awaiting President Ferdinand Marcos Jr.'s signature, proposes a two-year amnesty program.



House approves the Real Property Valuation and Assessment Reform B...


Visit >

“

Package 3 will definitely improve the real property valuation system and benefit the rural banks, particularly in the appraisal of real property for mortgage, investments, and sale.

The development and maintenance of a nationally consistent real property valuation system based on internationally accepted valuation standards is a positive and welcome change for the rural banking industry.

”



Milott Requillo
Rural Bankers Association of the Philippines (RBAP)
Director
expressing her support for Package 3 of the Comprehensive Tax Reform Program

DOFPH DOF_PH

“

I am one with the DOF in pushing for Package 3 of the Comprehensive Tax Reform Program or the Real Property Valuation Reform. Package 3 will ensure transparency in all real property transactions, thereby protecting the interests of the public. It will also develop confidence in the work of appraisers and assessors.

”




Provincial Assessor-Masbate
Jessie B. Doctolero, REA, REB, REC
Regional Conference Seminal for all Assessors and Treasurers in Region V
Sorsogon City, August 7, 2019

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“

A single valuation based on the approved schedule of market values (SMV) will help resolve the issue of multiple and overlapping valuations, which are currently being undertaken by different government agencies and local government units (LGUs). Package 3 of the Comprehensive Tax Reform Program or Real Property Valuation Reform will provide a more transparent, open, and reliable valuation base that will boost the trust and confidence of foreign and local investors in the real estate industry.

”

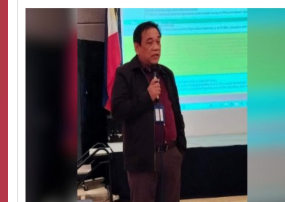


Rene Loreto Gilbas, CE, REA
Provincial assessor of Sorsogon
expressing his support for Package 3 of the Comprehensive Tax Reform Program

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Valuation reform seen to meet Eastern Visayas property tax goal

By Sarwell Meniano
July 26, 2023, 8:06 pm



Bureau of Local Government Finance (BLGF) Eastern Visayas regional director Gerardo Avorque. (Photo by BLGF)

TACLOBAN CITY – The Bureau of Local Government Finance (BLGF) regional office here said the passage of the proposed Valuation Reform Act will help raise the local government's real property tax (RPT) collection.

With the uniform valuation standards, local governments will be able to collect the right taxes from a property and meet their collection target, BLGF Eastern Visayas regional director Gerardo Avorque said on Wednesday.

The official noted that local governments in the region consistently failed to reach the RPT collection target with 80 percent of cities and towns having outdated market valuations.

Prospects: Real Property Valuation Reform Act (RPVARA)

Next game-changer to reshape fiscal landscape and governance structure

- 1** Modernize the real property tax administration system
- 2** Institutionalize the decades-long LAM lessons, systems, innovations
- 3** Optimize the potential of real property as a revenue source for NG/SNGs
- 4** Recentralize the approval of valuations made by SNGs and improve accountability mechanisms
- 5** Adopt internationally accepted valuation standards and best practices
- 6** Offers a fresh start: 2-year property tax amnesty on penalties and interests on unpaid real property taxes
- 7** Automate the services of government through digitalization and comprehensive database
- 8** Foster equity and facilitate property rights enforcement to promote economically productive use of land.
- 9** Empower local governments to exercise fiscal autonomy through better own-source revenue generation



Takeaways, conclusions

1. **Pending legislative reforms, a critical mass of LGUs taking on the reforms and sustaining them**, especially in urban and peri-urban areas, helps build trust and confidence in the property valuation and taxation system
2. **High-level commitment of the government and leadership need to be sustained**, with support from stakeholders and development partners who co-own the reforms and provided feedback in the process through collaboration and effective consensus-building
3. **Well-designed and scalable projects are important interventions to continue capacity development and competency build up for LGUs.** It's never a one-off deal.



Takeaways, conclusions



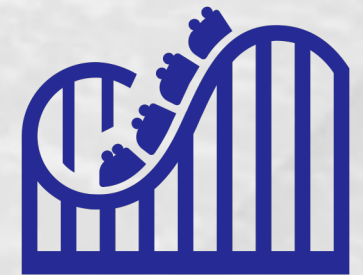
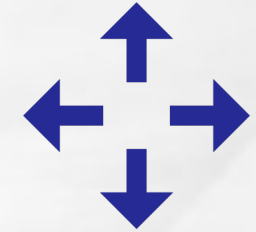
4. Beyond the promise of any project/program, consider that...

- Measures of success must not rest alone on generating more revenues but should also...
 - ✓ Lead to transformative governance of the real estate sector
 - ✓ Reduced disputes, faster transactions, robust property market
 - ✓ Increased LGUs' revenue autonomy and public spending on capital investments
 - ✓ Greater trust in the overall land and fiscal governance

5. Charting the critical next steps and casting a new reform roadmap helps ensure continuity to achieve the country's growth and economic development agenda in the long-term—otherwise, sustainability of benefits will be at stake

Takeaways, conclusions

- 6. The quest for good land and fiscal governance operates in a continuum.** Positive initial results of reform processes have to be strengthened, and scale up on small-wins and benefits.
- 7. Valuation and taxation issues are land and fiscal governance issues: above all they are development issues that need to be dealt with.** The LAM reforms offer opportunity for improving fiscal governance without creating new taxes or increasing the rates of existing ones.
- 8. Reforms need to go on, but requires from government to exert more effort, time, resources.** Subsequent programs and initiatives sustain the LAM efforts to keep the momentum in the land sector moving and the wave of reforms unhampered.



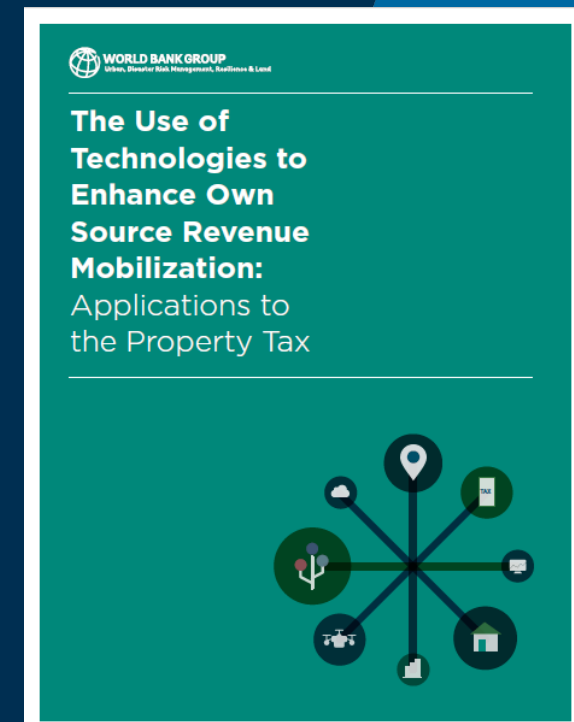


THANK YOU!

The Use of Technologies to Enhance Own Source Revenue Mobilization: Applications to the Property Tax

Uri Raich and Dong Kyu Kwak

May 15, 2024



Why is technology important for enhancing own source revenue (OSR)?



Revenue Flow

- Strengthening OSR mobilization improves fiscal autonomy of subnational government.
- However, OSRs in the developing world only account for 10 to 30 percent of total SNG revenue and less than 1 percent of GDP.



Common Problems

- Incomplete or inaccurate tax data, limited capacity and resources, ineffective data collection and management, lack of data sharing, reliance on manual and paper-based systems, poor billing and collection practices, and weak enforcement



Digital and ICT

- Transformative tool for strengthening local revenue performance by maximizing revenue streams and identifying untapped revenue.
- Improve administrative efficiency across the whole revenue chain, including transparency, compliance and accountability

Case Studies: Evidence of the benefits of ICT solutions for revenue administration



Objective

To bring together various technological solutions to present key strengths and challenges for implementation in specific environment.

- Case studies across Africa, Southeast Asia, and Latin America.



Sierra Leone *High-resolution imagery and automatic building footprint capture in Freetown*

Registration of almost 100,000 new properties, compared to the 30,134 property records in the old valuation roll.



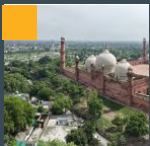
Ghana *Mobile application for data collection in Accra*

Reduction of manual labor from 120 to 20 days to capture revenue data of 10,000 parcels.



Kenya *Automated and simplified mass valuation in Nairobi*

Revaluation of 142,000 properties first time since 1980, increasing revenue to US\$210 million.



Pakistan *Digitization and GIS-based system in Punjab*

Tax base expansion by increasing 19% of the urban immovable property records.



Colombia *Integrated information and AI for building change detection*

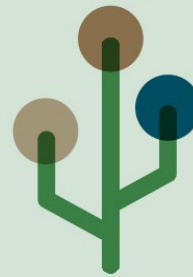
Revenue increased from property tax to \$ 9.04 billion (peso, millions) in 2021, as compared with \$ 1.73 billion in 2004.

Technological solutions for enhancing OSR and limitations on the role of ICT



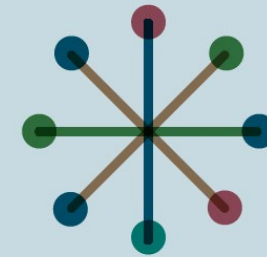
Data Capture/Identification

- ✓ Remote sensing and high-resolution imagery (satellite/aerial/UAV/mobile mapping, and open-source imagery)
- ✓ Spatial data extraction
- ✓ Mobile surveying application



Assessment / Processing

- ✓ GIS-based data management
- ✓ AI/ML-based assessment
- ✓ Automated data processing (automated assessment and valuation)



Integrated Administration Systems

- ✓ Web-based OSR administration systems
- ✓ Integrated payment gateways
- ✓ Mobile/electronic payment solutions

- **Enabling Environment:** HR Capacity, Legal Framework, Political Ownership, Institutional Collaboration, among others.

Contextual Continuum Framework of SNG OSR Reform

ENABLERS

ADMINISTRATION

DATA AND ASSESSMENT

STATUS

- Increasing capacity enabled via technology
- facilitated by a benign political context
- sustained via continued investment in system development

- process improvement
- delivered via effective procurement and deployment
- training and public acceptance
- regulatory reform

Basic digital records, manual processes

Imagery and algorithms can identify extent and basic 'counting' based in tax base coverage

Floor area-based systems with limited discrimination based on few variables

Limited attribute data, opaque market data

Limited/Adequate coverage, but out of date

Digital fiscal cadaster, some automated process

Drone footage, digital cost schedules and broad locational identification from imagery

Cost-based systems, calibrated by locational adjustments

Basic attribute data, thin market data

Some good/great areas, some bad areas

Digital spatial fiscal cadaster, digital processes mostly automated

Integrated database and spatial imagery embedded in a GIS-based MIS

Robust market value related systems, using a variety of value significant attributes

Good attribute data, some market data

Comprehensive, but slightly dated coverage

Fully spatially integrated multi-purpose cadastre and MIS

AI/ML and spatial econometric mass appraisal

Full ad valorem appraisal to market value, rebased frequently

Excellent attribute data, transparent market data

Comprehensive coverage, challenge of upkeep

Theme 1: Data Capture and Identification

The use of imagery, geospatial data and the deployment of GIS are central in data capture and identification.

Technical Considerations



- Data collection and management
- Data sharing and interoperability
- Adoption of technologies
- Innovative developments in data capture

Key Challenges

- Manual approach
- Large amount of data, with objective and subjective elements
- Behavioral obstacle
- Political limitation

Takeaway from Case Study

- Mass data collection exercises (FCC, Zanzibar, Kenya, Punjab)
- Interlinking datasets with GIS-enabled data (Colombia)
- Need for associated operational plan (Zanzibar)
- Need for a clear roadmap for the new tax bills with the updated OSR data (Kenya)

Lessons Learned

Access the baseline and develop strategy

Leverage Geospatial Data and Technologies

Explore Mobile/Matured Technology Options

Build Capacity and Maintain Data

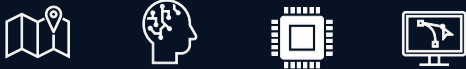
Ensure Data Sharing and Interoperability

Hold Ownership and Manage Risks

Theme 2: Assessment and Processing

OSRs require an assessment to determine the tax and charge. Technology can be applied in the assessment process by applying automated procedures.

Technical Considerations



- Simplified approaches and automation
- Scope of assessment automation with the use of technology

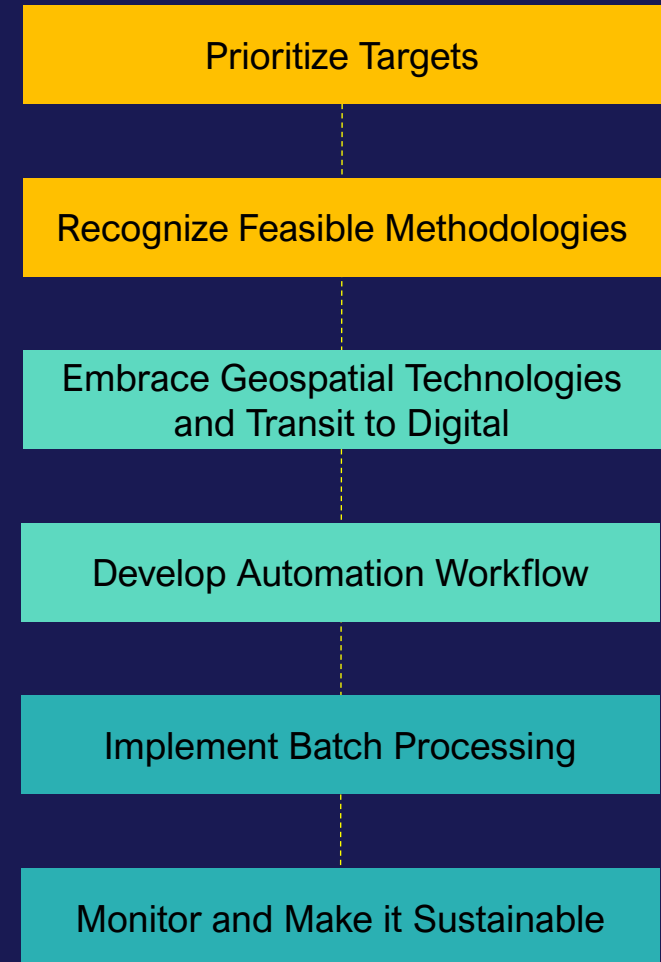
Key Challenges

- Manual, unclear, dated or complex assessment rules
- Limited data availability
- Low-capacity level

Takeaway from Case Study

- Prescribed, rule-based mass assessment model (Kenya, Pakistan)
- Automation system based simplified criteria (Pakistan)
- Flexible approach combined with traditional and automated assessment (Ghana)
- Integration of various data source for regular property assessment and use of data mining for processing (Colombia)

Lessons Learned



Theme 3: Integrated Administration System

Administration system host all revenue processes. Selecting a simple and cost-effective solution with a proper package of technologies is key for OSR enhancement.

Technical Considerations



- Phased-system development
- Choice of the right software
- Mobile and e-payment solutions

Key Challenges

- Lack of integrated system
- Partially manual administrative system
- Inefficient billing, collection, and enforcement
- Fragmentation of systems at SNG level

Takeaway from Case Study

- Incremental approach from pilots to cover all SNGs (Tanzania)
- Improvement of taxpayer compliance by automating billing and collection using web-based interface and e-payment (Pakistan)
- Challenges in system implementation due to decentralization (Kenya)

Lessons Learned

Determine How the Fragmented Administration Systems Interact

Adopt Agile and Affordable System Design

Build a Centralized Database

Explore Options for Utilizing the National Systems

Undertake Incrementally and Make it Sustainable

Where Next?

Transition to Modern OSR Management and Decision on Investment

Decisions over the selection of specific technological solutions to enhance OSR must consider both the capital and operational expenses of each technology, as well as their expected benefits.

Success is not contingent upon the use or selection of a specific technological solution.

Success of technological solutions for OSR enhancement depends on overall commitment to revenue reforms, a full vision and plan for change management, financial constraints, and regulatory and institutional determinants.

With careful technical design and piloting, the initial investment is expected to pay-off.

Technology can simultaneously address the administrative challenges facing SNGs while also producing the much-needed revenue to address SNG funding gaps.

Thank you for listening

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Annex: Sequencing the Development of OSR Administration Systems and the Adoption of OSR-related Technologies LAND

