

REB's Engagement in East Asia and the Pacific

Experience, Expertise, and Core Offerings

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About Korea Real Estate Board (REB)

Institutional Overview

The Korea Real Estate Board (REB) is a state-owned enterprise established in 1969. REB serves as Korea's primary public institution for real estate mass valuation, production of real estate statistics, real estate market management, and building information management.

- **Extensive Network:** Operating through the headquarters, R&D center, and 30 regional branches nationwide.
- **Professional Workforce:** Supported by a highly credentialed team of over 1,100 specialists, including 780 Property Assessors and 188 Certified Appraisers.
- **Data-Driven Administration:** Managing comprehensive real estate databases and valuation systems to support national policy and taxation.

Professional Workforce

REB's operations are driven by deep technical expertise, supported by a diverse team of specialists across the real estate, engineering, and IT sectors:

- **780** Property Assessors
- **188** Certified Appraisers
- **121** IT Engineers
- **89** Survey Analysts
- **58** Land Compensation Managers
- **40** PhDs
- **24** Professional Engineers
- **24** Building Energy Assessors
- **15** Architects
- **11** MAI Appraisers (USA)
- **9** CPAs & 3 AICPAs
- **18** Lawyers

Core Expertise I: Real Estate Mass Valuation & Statistics



Mass Valuation

REB assesses the entire multi-family housing stock (15 million units) and reference single-family housing (250,000 units) annually. REB also verifies municipal prices and manage private appraisers' mass valuation nationwide.



Market Statistics

REB produces comprehensive real estate sales and lease market statistics for land, residential, and commercial properties. These indices serve as the empirical basis for Korea's national economic policy.



Appraisal Review

To ensure fairness, REB reviews appraisal reports produced by private certified appraisers for critical purposes such as land compensation and mortgage valuation, carrying out expropriation processes for public projects.

Core Expertise II: Digital Admin & Market Management



Market Info System

REB operates an advanced Real Estate Transaction Management System (RTMS) that tracks actual transaction prices, preventing market manipulation and ensuring transparent revenue streams.



Digital Admin (e-AIS)

REB manages the Korea Electronic Architectural Administration Information System (e-AIS), fully digitalizing the building administration lifecycle, including building permits and occupancy approvals.



National Building Energy DB

REB operates a comprehensive database that seamlessly aligns building registries with monthly utility data (electricity, gas, district heating) across 7.42 million buildings for GHG tracking.

Sharing Expertise for Global Land Administration Excellence

REB collaborates with development agencies and multilateral banks to implement mass valuation projects and provide technical assistance for land policy infrastructure in developing economies.

- **Indonesia:** Domestic Resource Mobilization through Improved Land Valuation (World Bank).
- **Lao PDR:** Establishment of Land Price Information System (MOLIT/ODA).
- **Thailand:** Establishment of Property Mass Valuation Master Plan (KSP).
- **Vietnam:** Land Price Assessment Capacity and System Improvement (KOICA).
- **Ethiopia:** Real Estate Mass Valuation System Development and National Roll-out Master Planning (MOLIT, 2024-2027)
- **Pakistan (Khyber Pakhtunkhwa):** Mass Land Valuation Pilot (World Bank, 2024-2025)
- **Tanzania (Zanzibar):** Capacity Building for GIS-based Revenue Collection System (World Bank, 2018-2020)

Global Development Projects

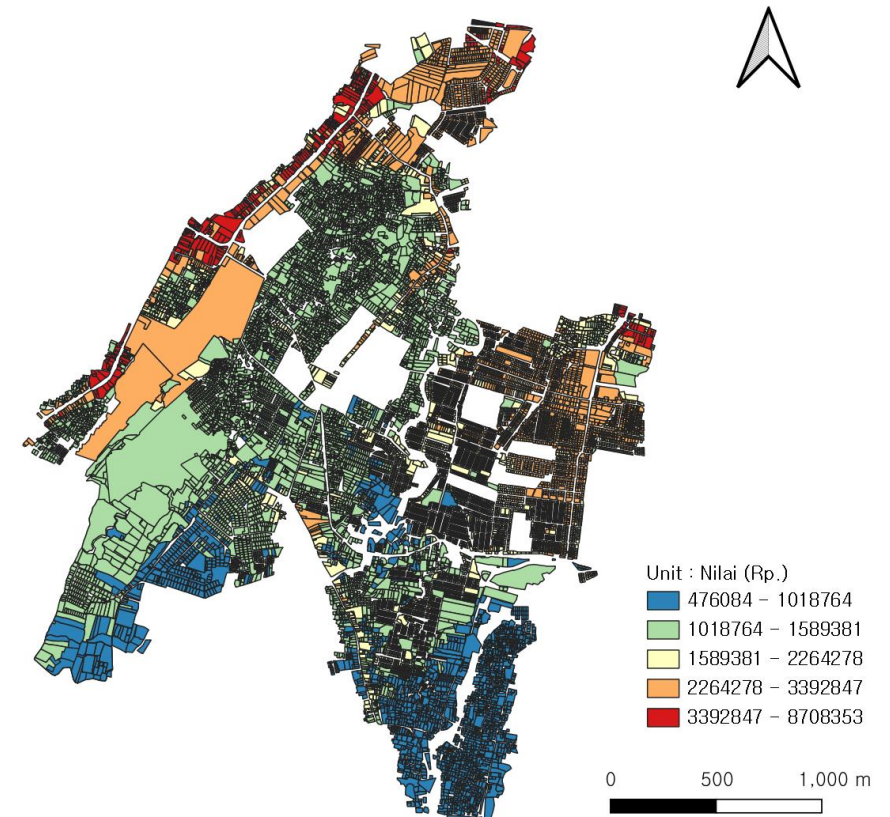
ODA & Multilateral Engagements (World Bank, MOLIT)



Indonesia: DRM via Mass Valuation

From 2022 to 2024, REB collaborated with the World Bank and the Indonesian Ministry of Agrarian Affairs and Spatial Planning (ATR/BPN) on a mass valuation pilot project.

- **Goal:** Supporting Domestic Resource Mobilization (DRM) for Infrastructure Investment through Improved Land and Property Valuation.
- **Context:** Sub-national governments (SNGs) face major infrastructure financing gaps and bear spending responsibilities but collect few own-source revenues (OSRs).
- **Core Issue:** Undervaluation of taxable properties limits SNGs from capturing true land value for property taxes (PBB-P2) and acquisition taxes (BPHTB).
- **Focus Areas:** Pilot projects in Cirebon (urban) and Surabaya (metropolitan) to upgrade zone-based (ZNT) and parcel-based (NBT) mass valuation.



Indonesia: Challenges & Approach

Identified Challenges

REB's comprehensive analysis of the existing valuation infrastructure identified several critical bottlenecks limiting revenue generation:

- **Data Silos:** Lack of integration between ATR/BPN's cadastre and SNG tax records (DISPENDA).
- **Outdated Cost Data:** Reliance on outdated building component cost lists (DBKB).
- **Manual Processes:** Market data collection for mass valuation was largely manual, limiting sample sizes.
- **Model Limitations:** The existing parcel-based NBT utilized a single, generalized model per city, missing micro-market nuances.

Strategic Approach

To address these issues, REB implemented a multi-faceted modernization strategy focusing on automation and standardized models:

- **Data Bank Formation:** Developed a unified Land Price Information System (LPIS) databank, standardizing attributes.
- **Automated Valuation Models (AVM):** Transitioned from manual assessments to statistically robust mass valuation utilizing Computer Assisted Mass Appraisal (CAMA) techniques.
- **Advanced Spatial Modeling:** Tested Ordinary Least Squares (OLS), Geographically Weighted Regression (GWR), and Regression Kriging (RK) to capture spatial dependencies.

Indonesia: Key Achievements

Model Performance & Tax Potential

The implementation of advanced spatial econometric models yielded significant improvements in valuation accuracy and tax base potential.

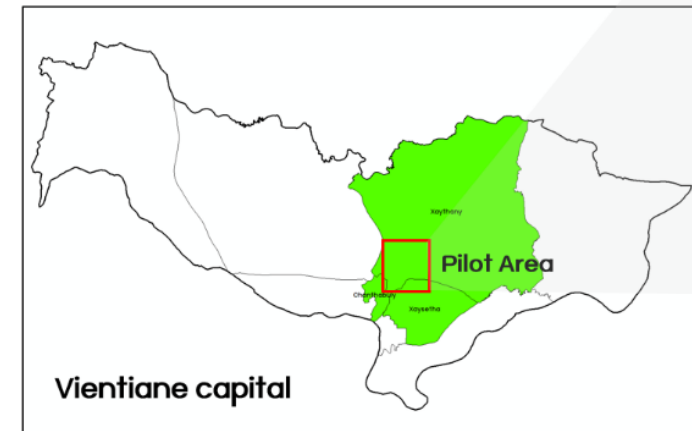
- **Improved Predictive Accuracy:** The Regression Kriging (RK) model successfully mitigated spatial autocorrelation issues found in basic OLS models, achieving acceptable Coefficient of Dispersion (COD) metrics.
- **Reflecting True Market Value:** In Cirebon, the new mass valuation model increased the total assessed land value base by **+62.38%** compared to the legacy ZNT system.
- **Metropolitan Impact:** In Surabaya, the model increased the assessed value base by **+27.59%**, demonstrating the capability to capture significant previously untaxed land value.
- **System Design:** Delivered technical specifications for an advanced SIPENTA IT architecture, enabling data sharing via APIs with local tax offices.

Lao PDR: Land Price Information System

Korea ODA Grant Project

Building on success across the region, REB is currently leading a vital ODA project funded by the Korean Ministry of Land, Infrastructure and Transport (MOLIT) from 2023 to 2025.

- **Goal:** Establishment of Land Information and Real Estate Valuation System of Lao PDR.
- **Target Area:** Vientiane Capital (Districts of Chanthabouly, Xaithany, Xaysetha).
- **Core Objective:** To modernize Laos' land administration by establishing an integrated land information system and a transparent, objective public price announcement system.
- **Strategic Focus:** Shifting from outdated, opaque valuation methods to a systematic, data-driven approach to secure national finances and mitigate land disputes.

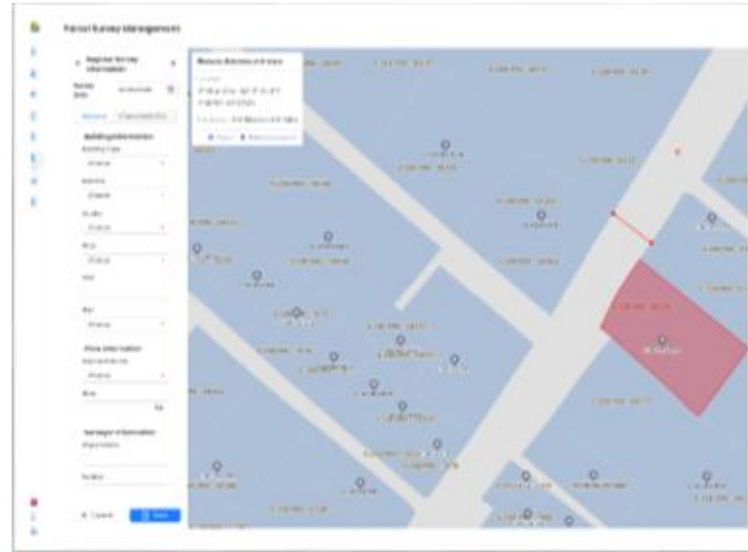


Lao PDR: Implementation Steps

13 Land Characteristics	
1	Land Use Status
2	Land Area
3	Road Accessibility (Road Frontage)
4	Road Width
5	Land Shape (e.g., regularity) and Topography
6	Land Elevation and Drainage Conditions
7	Infrastructure (e.g., water and sewage)
8	Public Transportation Accessibility
9	Land Utilization Status
10	Surrounding Environment
11	Other
12	Land Use Regulations
13	Land Use Plans

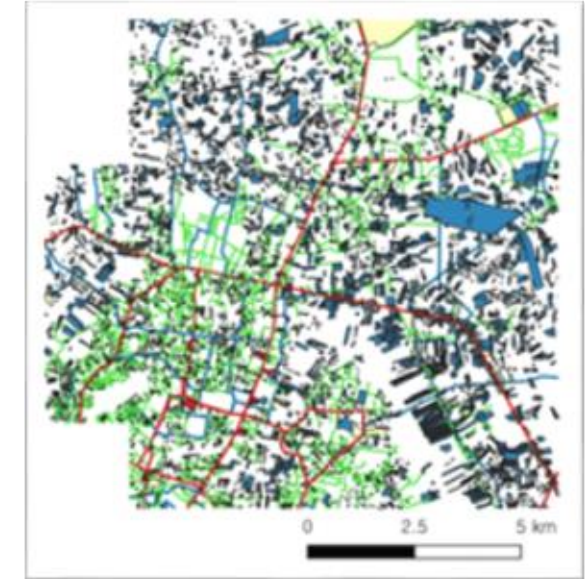
1. Field Survey & Data

Moved beyond basic road-grade valuation. Conducted extensive on-site surveys defining 13 key land characteristics (e.g., shape, elevation, road width, infrastructure access).



2. Database & IT System

Constructed a core land characteristic database utilizing GIS technology. Developed a customized, web-based Land Price Information Management System.



3. Valuation Modeling

Designed a stepwise estimation model: Regional analysis → Extracting price-forming factors → Matching with standard land → Estimating individual land prices via regression.

Lao PDR: Outcomes & Sustainability

Tangible Outcomes

The introduction of the new systematic models fundamentally optimized land registration and valuation processes in Vientiane:

- **Improved Transparency:** The objective calculation of land prices significantly increased administrative transparency.
- **Dispute Reduction:** Achieved a **25% reduction** in land-related disputes by strengthening formal land rights and providing reliable records.
- **Data Accessibility:** Delivered a **70% improvement** in data accessibility for government agencies.
- **Fiscal Soundness:** Laid the groundwork for fair resource allocation and enhanced national fiscal health.

Sustainability

A critical focus of REB's ODA approach is ensuring the recipient country can independently manage the system post-project.

- **Local Capacity Building:** Provided extensive, customized training programs for Lao government officials and practitioners.
- **Context-Specific Design:** The valuation models were not simply "copied" from Korea, but explicitly tailored to Laos' specific socio-legal, administrative, and technological context.
- **Autonomous Expertise:** Focused on holistic human capital development, transferring operational management and strategic policy analysis skills.

Insights for Cambodia: Linking Valuation to Revenue

Subnational Revenue Mobilization

Sustainable urban development in secondary cities requires a robust mechanism for generating own-source revenues (OSRs).

- **Key Revenue Streams:** Property taxes, land use fees, and real estate acquisition taxes form the backbone of subnational finance.
- **Institutional Arrangements:** Breaking down data silos between the Cadastre (land registration) and local tax authorities is critical for revenue collection.
- **Market Management:** Transparent real estate market data encourages formal transactions and prevents tax base erosion.



Core Offerings for Cambodia's Urban Growth



Capacity Building

Transferring expertise in Computer Assisted Mass Appraisal (CAMA) and statistical modeling to equip local officials with tools for equitable property valuation.



System Architecture

Designing master plans and APIs to integrate local land registries with national property tax systems, ensuring no taxable parcels are missed.



Secondary City Strategy

Piloting mass valuation systems in secondary cities to lay a scalable foundation for nationwide, sustainable urban land management.

Conclusion

By sharing over 50 years of experience in property valuation and market management, REB is committed to partnering with emerging economies to establish transparent, equitable, and revenue-generating land administration systems.

Questions?

Thank you for your time and attention.

