Big Data Application

in Thailand's Government

National Statistical Office, Thailand

Outline

1. Thailand National Big Data Policy

2. Use cases in Thailand Government Agencies

3. TNSO Case Study

1. Thailand National Big Data Policy

2018

The **Steering Committee**
for Policy Implementation to utilize Big Data,
Data Centers, and Cloud Computing

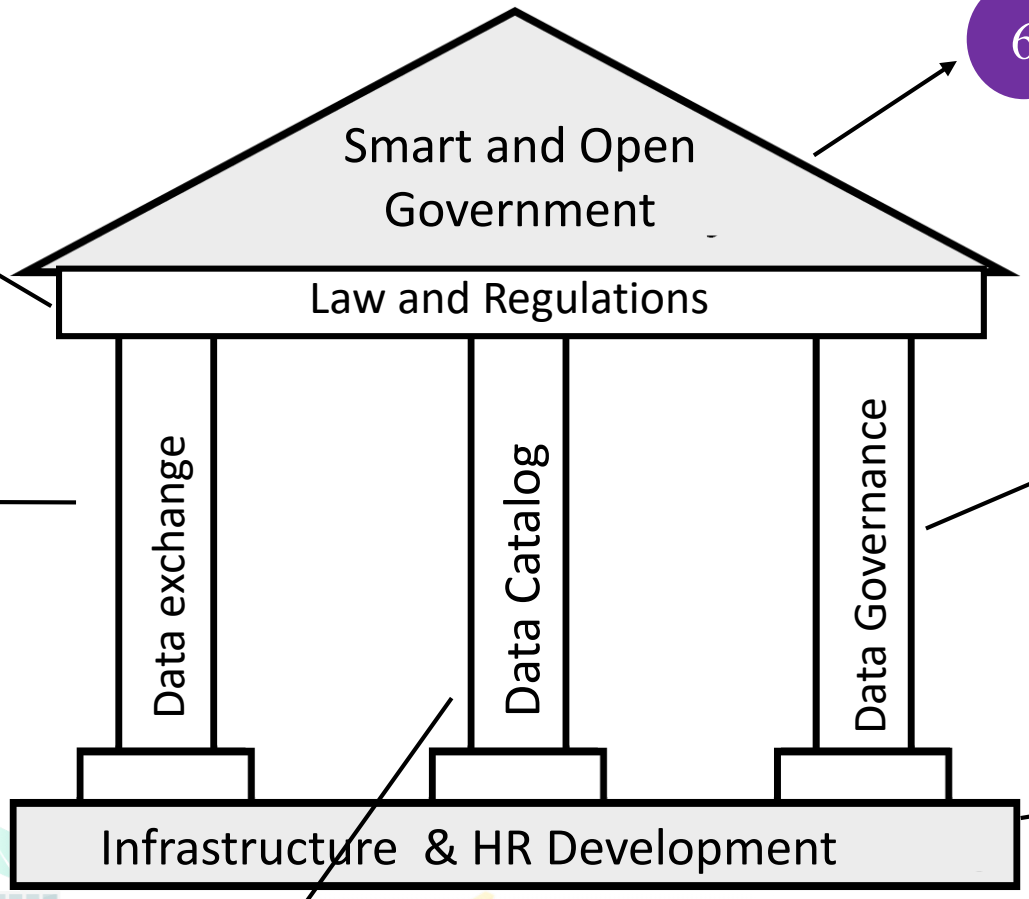
- **Legislation**
- **Architecture and government Information integration system**
- **Human Resource Development**

MDES Ministry of Digital Economy and Society as a secretary

Central Service

- Improve the quality of life of the citizen
- Smart Operations
- Citizen-centric Services
- Resource sharing
- Help save budget

Government Data Service Framework



Law and Regulations
- Legal alignment
- Data protection
- Cyber security

5

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Smart and Open Government
- Citizen Services
- Ease of doing business
- Efficient Government

4

Common Services
- ID verification
- Access control
- Data Linkage
- Transaction logging
- Digital Signature
- Service Statue Tracking

2

Data Governance
- Data accuracy, consistency, completeness, freshness
- Data Security
- Data availability

1

- National Data Center, Cloud, and Big Data Platforms
- HR Development (Data Analysts, Data Scientists, Data Engineers)

3

Data Cataloging and directory services

2. Use Cases in Thai Government Agency

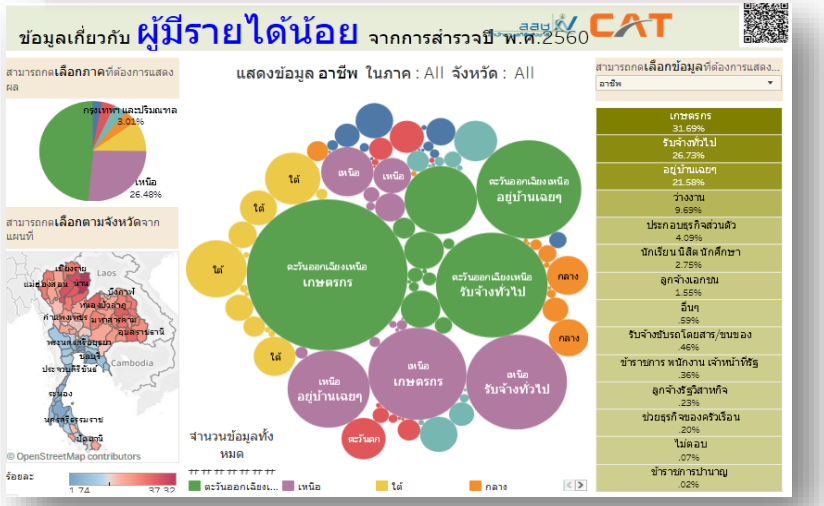
Increasing tourism potential

Demand and supply analysis to identify behaviors, to match the data availability in the areas

Improving tax collection

identify businesses that have a high chance of having an underpaid income

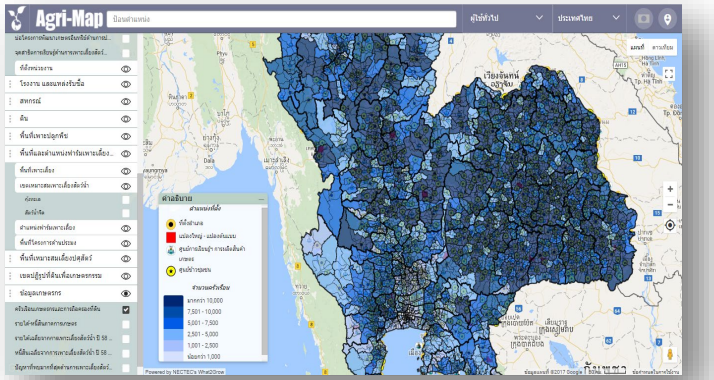
The analysis of Social Media on the issues of the Village Broadband Internet



collects opinions from various online channels using “Net Pracharat Wifi”, as a pilot project

Workshop

https://www.what2grow.in.th



Agricultural Data Integration and Zoning Optimization Modeling

(by The National Electronic and Computer Technology Center : NECTEC)

- The government lacks information to plan and formulate the national Agricultural Economics Crop Zoning in order to make the most use of the country's land and maximize efficiency.
- Supported data and cooperation from 22 Departments, Provide information related to soil type, weather, and supply and demand humidity, rainfall, wind speed, wind direction and temperature
- Help farmers to grow the ‘right’ crops.

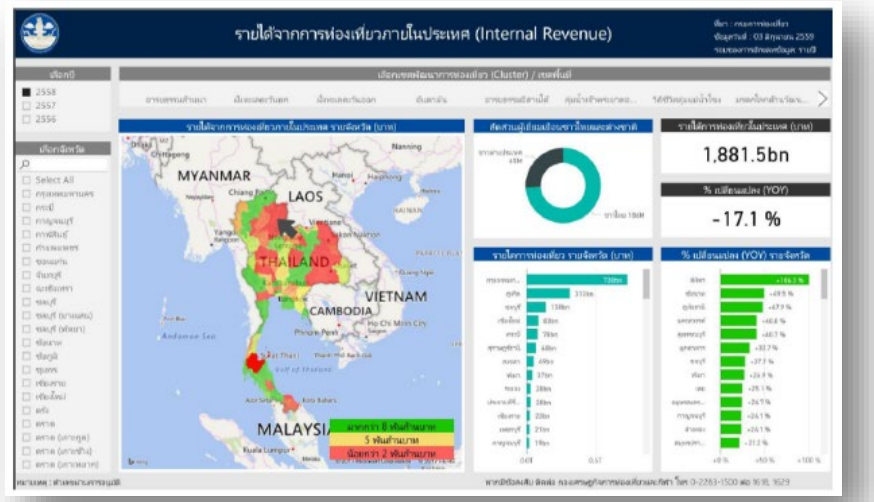
http://www.thaiwater.net

National Water Management

(by Hydro and Agro Informatics Institute)

- Collects related data acquired from the cooperation of 35 relevant Departments
- Developed a national database of water resources (National Hydro informatics and Climate Data Center)
- Manage water in both normal and crisis conditions by monitoring, analyzing, and predicting the water level and situation, including flood monitoring to proactively stay alert of inundation.
- NSO supports fundament data on water usage of individual, households, agricultural households and establishments

https://thailandtic.com



Thailand Tourism Intelligence Center

(by Ministry of Tourism & Sports)

- ❑ Linkage and Integration tourism data from 9 Departments
- ❑ Gather information on important domestic tourism situations
- ❑ Manage data, plan to improve tourism potential

Thailand Digital Outlook Project

(by The Office of the National Digital Economy and Society Commission)

- ❑ Collect data from the 3 provinces during 1 January to 31 December 2018 through “Net Pracharat wifi” and mobile data networks.
- ❑ The exploration draws attention to technology and digital information accessibility such as People ages 30-39 years are the majority Net Pracharat users, The participation in E-commerce is high, while the access of government websites is still low.
- ❑ Outcome : Government can make policies or interested contents based on each age range.

3. Thailand NSO Case Study

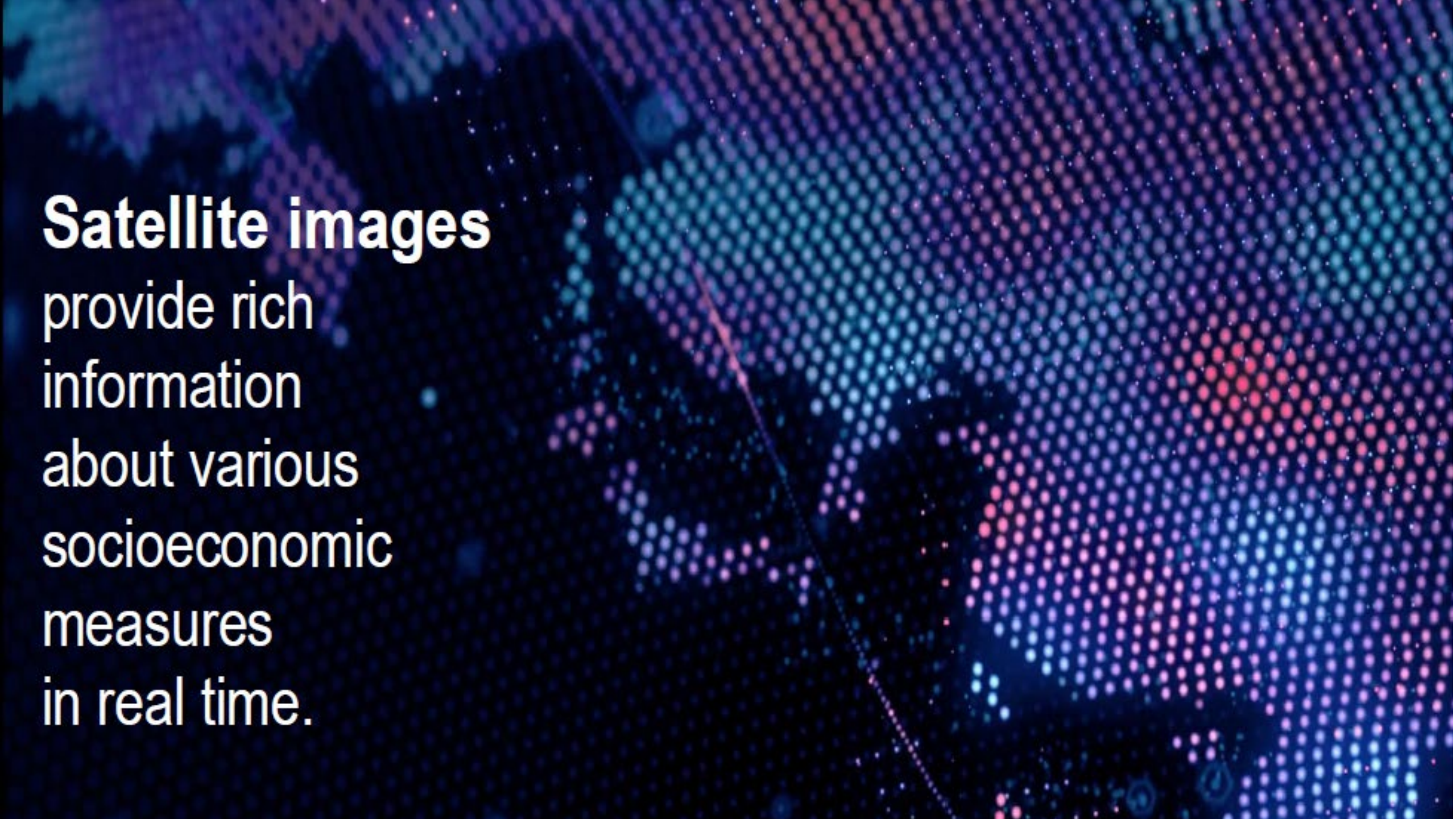

Timely, reliable DATA are the lifeblood of today's societies.


zoom
moving

Finding Alternative Data Sources to Complement Conventional Data Sources

- How can we reconcile the need for granular data and need to contain costs at manageable levels?

- Could we capitalize on availability of alternative data sources to complement conventional data sources to meet the disaggregated data requirements?


Satellite images
provide rich
information
about various
socioeconomic
measures
in real time.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OTHER GEOSPATIAL DATA

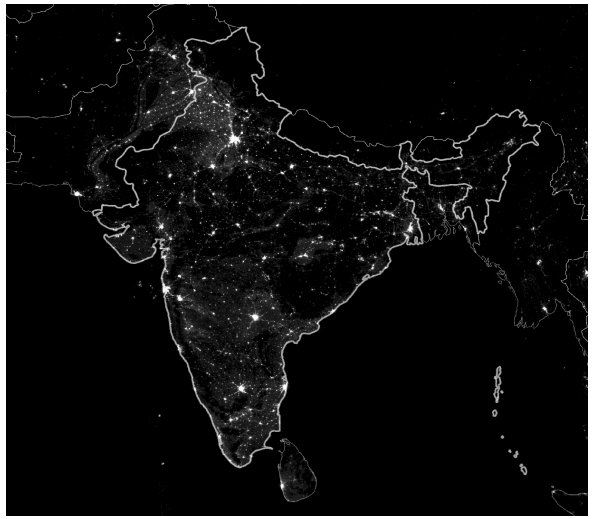

Image Source: DevelopmentSEED

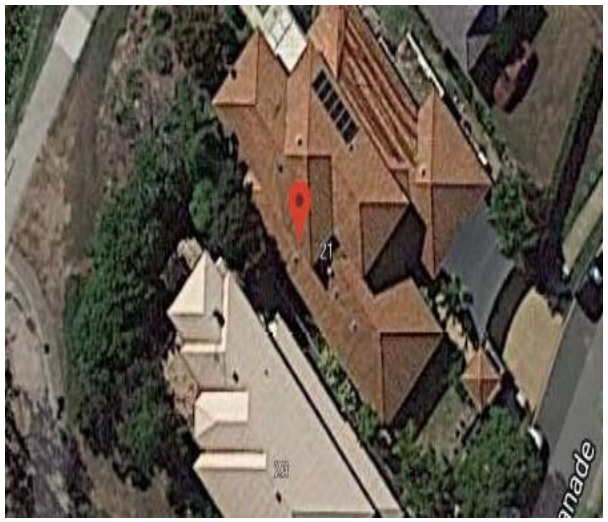

Image Source: Solar Quotation

Image Source: Earth Imaging Journal

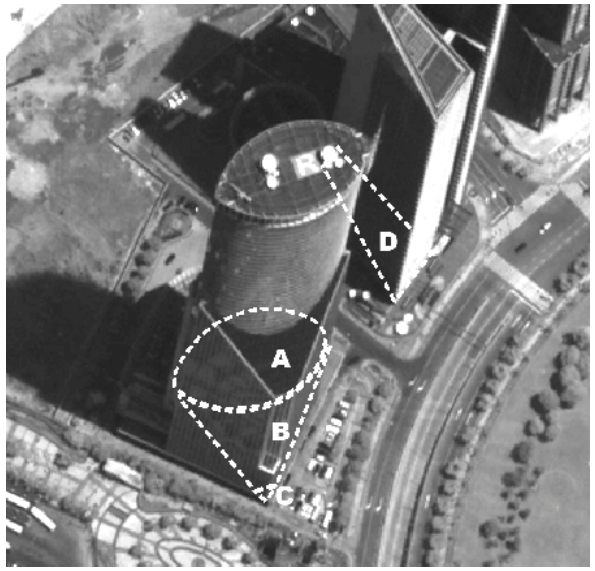

Image Source: Pan et al., 2008

Image Source: AgriLand

Image Source: Wang et al., 2016

ADB's **Data for Development**
aims to strengthen the capacity of NSOs
in engaging with **innovative data** sources.

Data for Development Team

- **Statistics and Data Innovation Unit, Asian Development Bank**
- **National Statistics Office of Thailand**
- **Philippine Statistics Authority**
- **World Data Lab**

Other Development Partners: UNESCAP, UNSD, PARIS21

Enhancing Small Area Population and Poverty Estimates

Using Geospatial Data and Satellite Imagery

Challenges

- Access to Big Data
- Technological Requirements
- Capacity
- Data Privacy
- Ecosystem

NSO
National Statistical Office
Thailand

Thank you for your attention!