Efforts in Monitoring SDG with Disaggregation in the Philippines

International Workshop on Data Disaggregation for the SDGs
Bangkok, Thailand
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Outline of Presentation

- **Alignment of SDGs with national development priorities**

- **SDG indicators monitored in the Philippines (with status of disaggregation)**

- **Existing efforts on small area estimation (SAE)**

- **Policy uses of SAE (including lessons learned)**

- **Limitations of SAE derived from conventional data sources**

- **Ongoing efforts to incorporate innovative data sources (e.g., big data) to address the requirement of disaggregation in the SDGs**

Alignment of SDGs
with national development targets

Philippine Development Plan, 2017-2022

- **Translates priorities into policy and strategy framework, and programs and projects**

- **Guides the national budget appropriations**
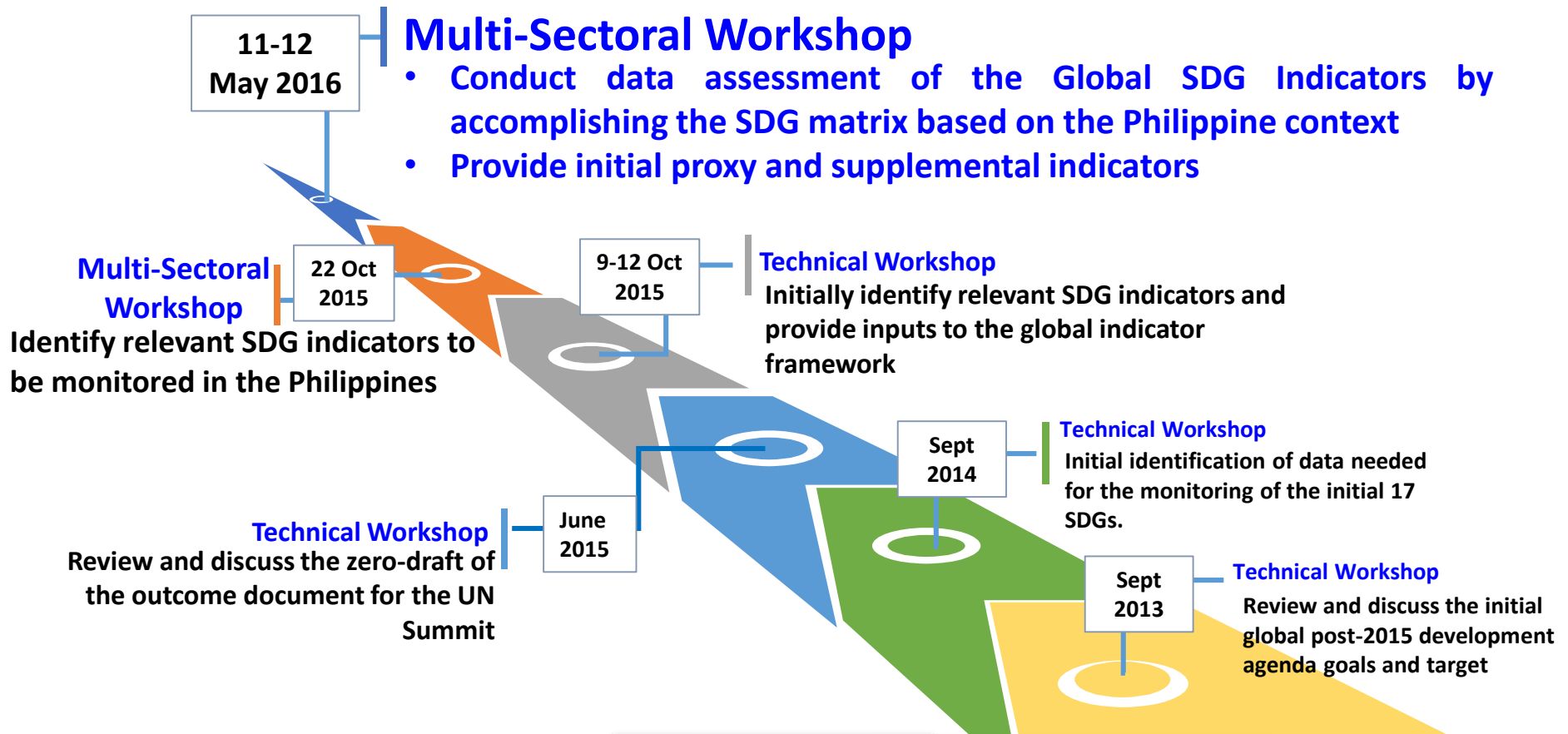
- **Reflects the 17 SDGs and Ambisyon Natin 2040**

Philippine Development Plan 2017 2022
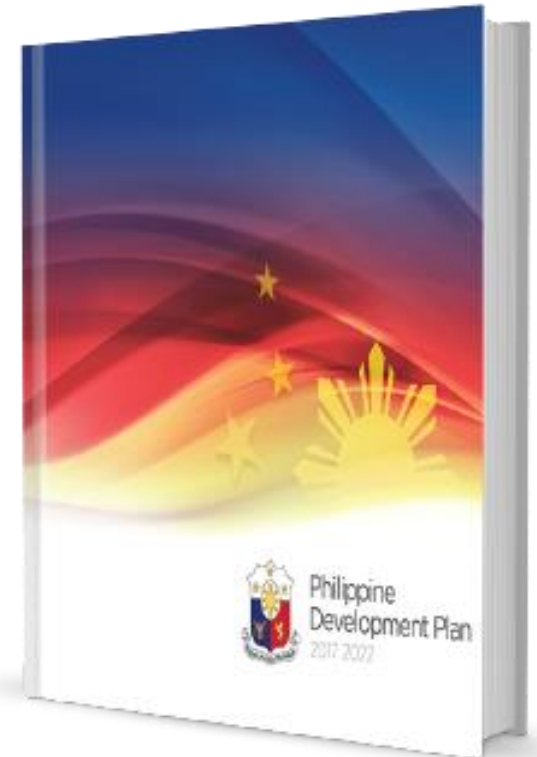
Alignment of SDGs with national development targets

The Philippine Development Plan and the 2030 Agenda

2040 — FILIPINOS ENJOY STRONG BONDS WITH FAMILY AND FRIENDS, A COMFORTABLE LIFESTYLE AND SECURE FUTURE

2022 — TO LAY DOWN THE FOUNDATION FOR INCLUSIVE GROWTH, A HIGH-TRUST AND RESILIENT SOCIETY, AND A GLOBALLY-COMPETITIVE KNOWLEDGE ECONOMY

"MALASAKIT" ENHANCING THE SOCIAL FABRIC

"PAGBABAGO" INEQUALITY-REDUCING TRANSFORMATION

"PATULOY NA PAG-UNLAD" INCREASING GROWTH POTENTIAL

- Ensure people-centered, clean, and efficient governance
- Increase access to economic opportunities
- Advance technology adoption
- Stimulate innovation

- Pursue swift and fair administration of justice

IMPLEMENT STRATEGIC TRADE AND FISCAL POLICY, MAINTAIN MACROECONOMIC STABILITY, AND PROMOTE COMPETITION

- Promote Philippine culture and awareness
- Reach for demographic dividend

- Ensure peace and security
- Accelerate infrastructure development
- Ensure safety and build resilience

SDG Indicators Monitored in the Philippines

Conduct of National Consultation/Assessment

11-12 May 2016

Multi-Sectoral Workshop
- Conduct data assessment of the Global SDG Indicators by accomplishing the SDG matrix based on the Philippine context
- Provide initial proxy and supplemental indicators

22 Oct 2015

Multi-Sectoral Workshop
Identify relevant SDG indicators to be monitored in the Philippines

9-12 Oct 2015

Technical Workshop
Initially identify relevant SDG indicators and provide inputs to the global indicator framework

Sept 2014

Technical Workshop
Initial identification of data needed for the monitoring of the initial 17 SDGs.

June 2015

Technical Workshop
Review and discuss the zero-draft of the outcome document for the UN Summit

Sept 2013

Technical Workshop
Review and discuss the initial global post-2015 development agenda goals and target

SDG Indicators Monitored in the Philippines

Initial List of Philippine SDG Indicators

"Approving and Adopting the Initial List of Sustainable Development Goals for Monitoring in the Philippines" **- PSA Board Resolution no. 09, Series of 2017**

17 GOALS

97 TARGETS

155 INDICATORS

SDG Indicators Monitored in the Philippines

Initial List of Philippine SDG Indicators

65.8% (102 indicators)

18.1% (28 indicators)

16.1% (25 indicators)

Global (Tier 1)   **Proxy**   **Supplemental**

SDG Indicators Monitored in the Philippines

What is required: Leave no one behind principle

- geographic location
- Sex
- age
- income class
- ethnicity
- migration status
- disability status
- etc.

SDG Indicators Monitored in the Philippines

Status of disaggregation among the SDG indicators monitored in the Philippines
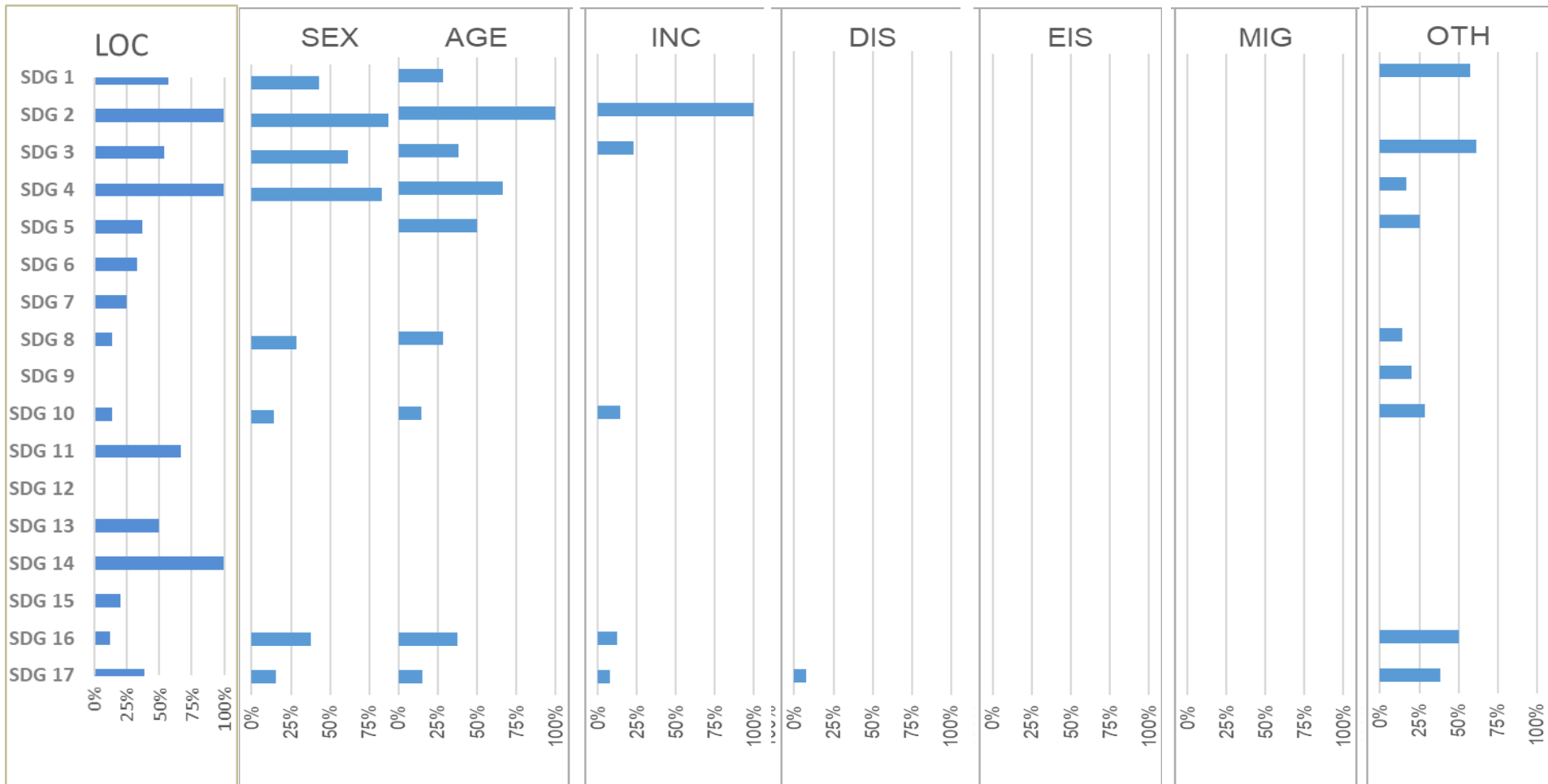
LOC = Location or spatial disaggregation (e.g. by metropolitan areas, urban/rural, or districts),
SEX = Sex, AGE = Age, INC = Income Quintiles/ Deciles, DIS = Disability,
EIS = Ethnicity and indigenous status, MIG = Migration status, OTH = Others

SDG Indicators Monitored in the Philippines

- **Efforts in support of disaggregation**

  a. PSA Resolution No. 1, Series of 2017-031, Enjoining Different Agencies to Promote Gender Concerns in the Generation of Statistics

  b. Adoption of the 2013 Master Sample* in PSA household surveys with province as domains

  c. Civil Registration and Vital Statistics Decade (2015-2024)

  d. Exploring unconventional sources

  e. Small area estimation

Existing Efforts on Small Area Estimation

Provincial Poverty Incidence
- 4.9 - 23
- 23.1 - 30
- 30.1 - 38
- 38.1 - 46
- 46.1 - 68.5

Municipal Poverty Incidence
- 1.5 - 18
- 18.1 - 32
- 32.1 - 46
- 46.1 - 60
- 60.1 - 97.5
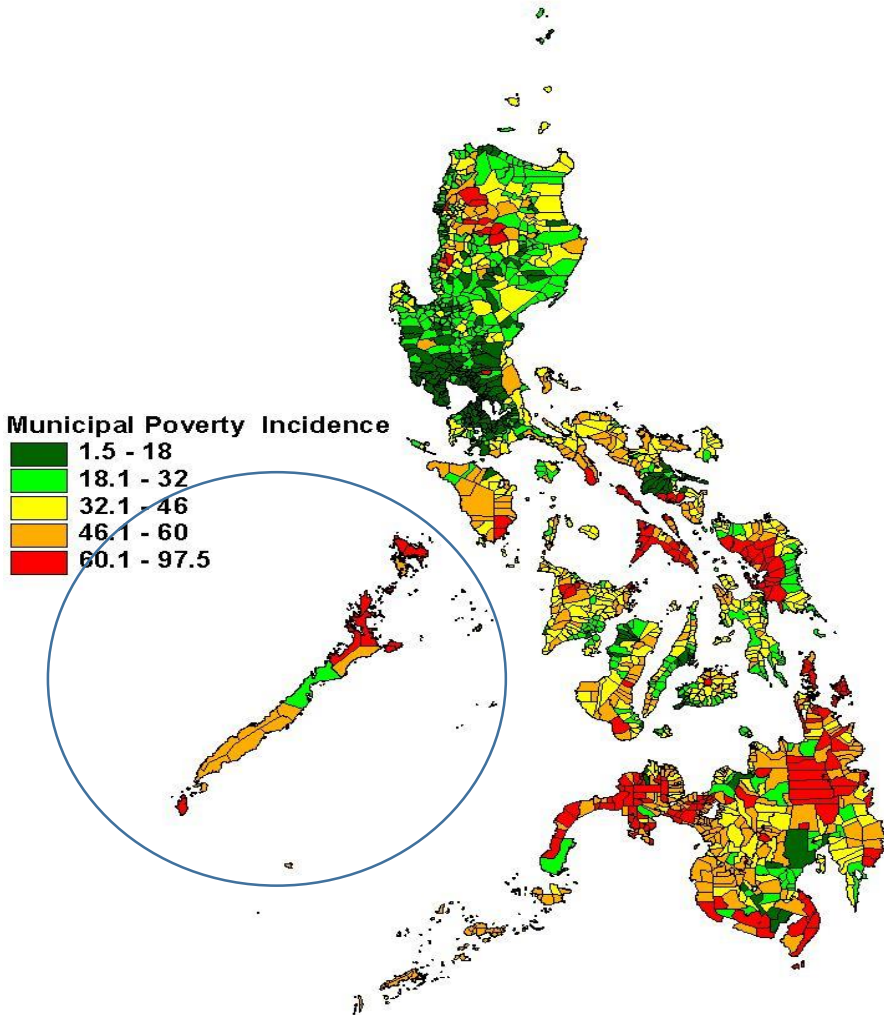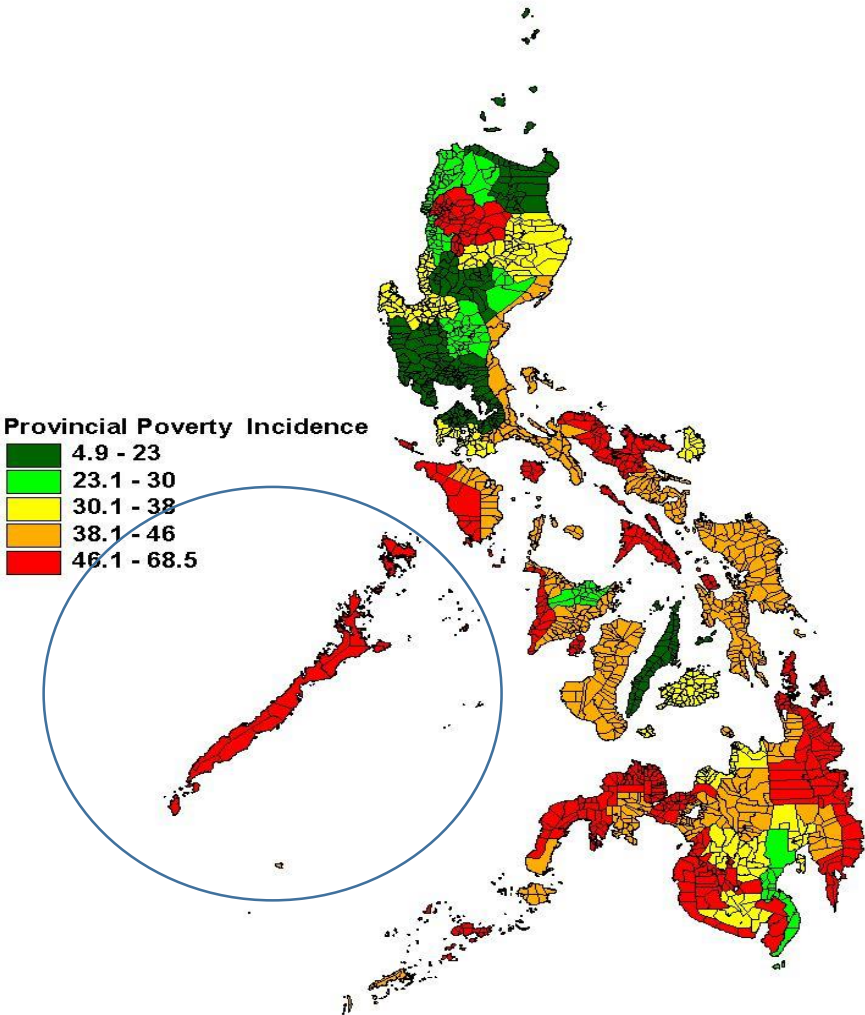
Existing Efforts on Small Area Estimation

Project	Output	Year Released	Funding Source	Methodology/ Data Sets Used
Poverty Mapping in the Philippines	2000 city/ municipal poverty estimates	2005	World Bank	Elbers, Lanjouw & Lanjouw (ELL); National Model 2000 CPH, 2000 FIES/ Labor Force Survey (LFS)*
Intercensal Updating of Small Area Estimates (SAE)	2003 city/ municipal level poverty estimates	2008	World Bank	Modified ELL; Regional Model 2000 CPH, 2003 FIES/LFS Barangay Listing
Updating of SAE on Poverty	2006 city/ municipal level poverty estimates	2013	World Bank, AusAid, Gov't. of the Philippines (GOP)	Modified ELL; Regional Model 2000 CPH, 2006 FIES/LFS Barangay Listing
Updating of SAE on Poverty	2009 city/ municipal level poverty estimates	2012	World Bank, AusAid, GOP	Modified ELL; Regional Model 2007 CP, 2009 FIES/LFS Barangay Listing
Updating of SAE on Poverty	2012 city/ municipal level poverty	2014	GOP	Modified ELL; Regional Model 2010 CPH, 2012 FIES/LFS Barangay Listing
SAE on Poverty in the Philippines	2015 city/ municipal level poverty estimates	2018	GOP	ELL; Regional Model 2015 CPH, Merged 2015 FIES & January 2016 LFS, 2015 CPH Form 5 (Barangay Data)

Existing Efforts on Small Area Estimation

Methodology: Elbers, Lanjouw and Lanjouw Methodology

Main idea

- Merge information from different types of data sources to come up with small area poverty estimates

- "Borrow strength" from the much more detailed coverage of the census data to supplement the direct measurements of the survey

Basic procedure

- Use the household survey data to estimate a model of per capita income (Y) as a function of variables that are common to both the household survey and the census (X's).

- Use the resulting estimated equation/model to predict per capita income <u>for each household in the census.</u>

- The estimated household-level per capita income are then aggregated for small areas, such as cities and municipalities.

Existing Efforts on Small Area Estimation

Methodology: Elbers, Lanjouw and Lanjouw Methodology

Regression Model

$$\ln Y_{ij} = X_{ij}\beta + h_i + e_{ij}$$

where Y_{ij} is the target variable (per capita income) X_{ij} are the household and community level characteristics;

h_i is the error term held in common by the ith cluster; and

e_{ij} is the household level error within the cluster.

Existing Efforts on Small Area Estimation

Validation in Region VIII, particularly Western Samar and Leyte

Policy Uses of SAE on Poverty

A. In policy formulation, planning and monitoring

National/Local Government Unit	Actual Policy Uses
Provincial Government of La Union	• used the 2006, 2009 and 2012 estimates in the assessment of the progress of municipalities in the implementation of poverty reduction programs • used the estimates to identify the causative factors behind the poverty situation in the province as basis for the formulation of a more focused 5-Year Anti-Poverty Plan
National Economic and Development Authority (NEDA) Regional Office I	• used the 2006, 2009 and 2012 estimates as inputs of the Regional Development Council in the annual selection of the Best LGU Poverty Program Implementer at the municipal level

Policy Uses of SAE on Poverty

A. In policy formulation, planning and monitoring

National/Local Government Unit	Actual Policy Uses
NEDA/Regional Development Council in CAR	• used SAE in preparing the profile and situationer of the BLISTT areas (Baguio, La Trinidad, Itogon, Sablan, Tuba and Tublay) during the BLISTT master planning activity • In the presentation and analysis of the region's poverty and macro-economy situationer, the SAE is used in identifying areas needing poverty reduction programs.

Policy Uses of SAE on Poverty

B. In targeting beneficiaries of programs/projects

National/Local Government Unit	Actual Policy Uses
Department of Social Welfare and Development (DSWD) in Western Visayas	• **used for the Phase II of the Pantawid Pamilyang Piipino Program (4P's) in Western Visayas**
DSWD-CAR	• **used as a guide for the 2nd round of the National Household Targeting System (NHTS) operations**
Department of Agriculture (DA)	• **used in the Panay Island Sustainable Agricultural Upland Development Project as basis to determine recipients of the projects in the pilot communities in order to address the upland communities' need for nutritious and healthy food by building the capability of people in implementing upland agricultural and forest development programs**

Policy Uses of SAE on Poverty

B. In targeting beneficiaries of programs/projects

National/Local Government Unit	Actual Policy Uses
DA	• used the SAE on Poverty for determining top priority LGUs in Region VI as recipients of the Philippine Rural Development Project (PRDP) funded by World Bank in partnership with the LGUs and the private sector

Lessons Learned

- **Capacity building of staff from the statistical office is essential to ensure sustainability of the initiative.**

- **Validation workshops are useful to provide better appreciation of the model developed and statistics produced.**

- **It is useful to know your target users so that statistics are disseminated/packaged in a manner that users will have good appreciation of the story**

Limitations of SAE Using Conventional Sources

- For years when census and household survey are not conducted at the same time, variables that can be used for the development of models are limited to time invariant variables.

- Availability of results can take some time (taking into consideration the encoding and processing of the census and household survey plus the data preparation and model building for the SAE).

Ongoing Efforts to Incorporate Innovative Data Sources

- **Current initiative between Asian Development Bank and PSA is to explore possibility of improving the availability of the following SDG indicators by considering innovative data sources:**

  a. Proportion of population living below the poverty line

  b. Proportion of the rural population who live within 2 km of an all-season road

Global Distribution of Intensity of Nighttime Lights   1992

Correlation between Poverty Rates and NTL Values
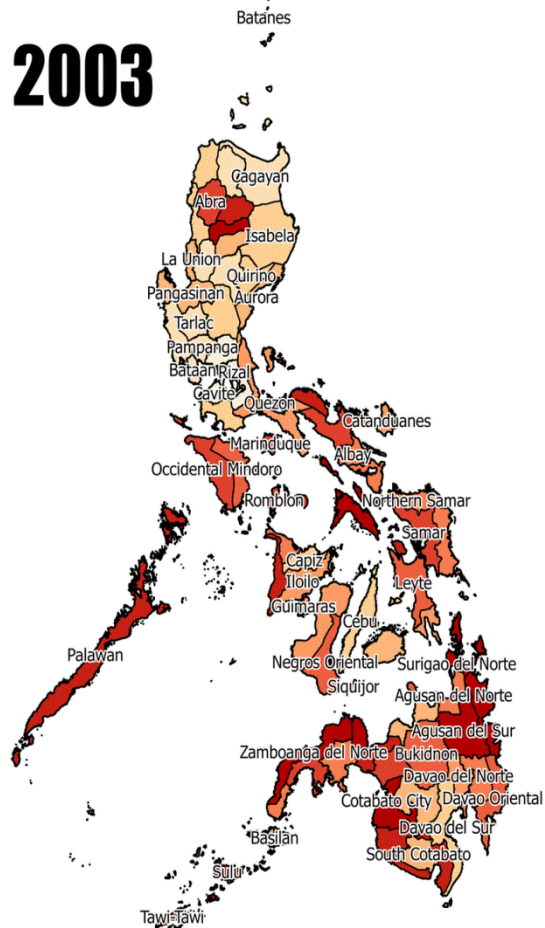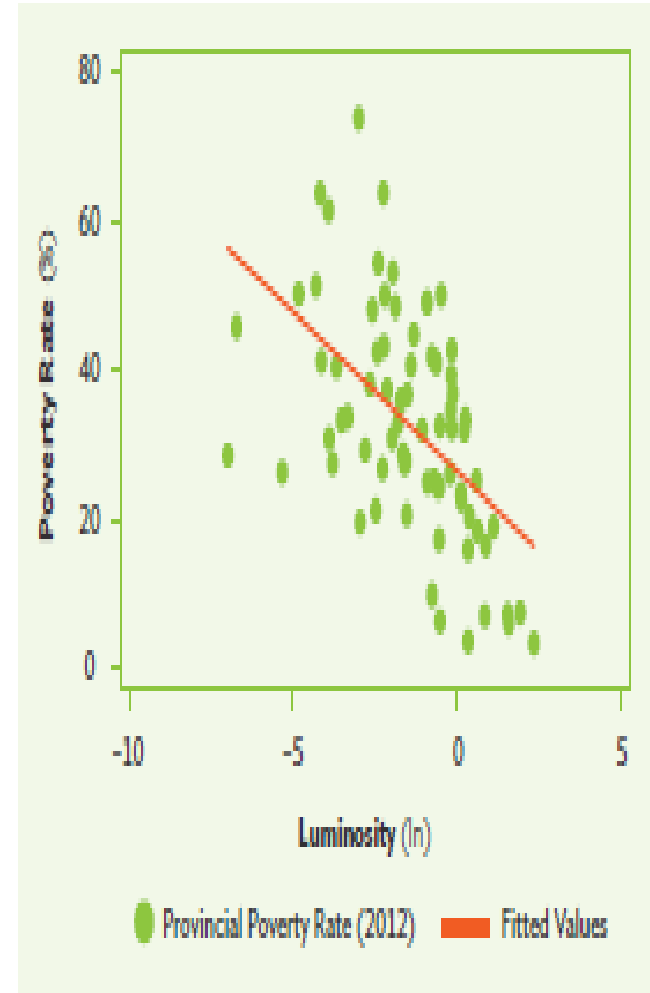
Source: ADB Key Indicators for Asia and the Pacific 2016.

Ongoing Efforts to Incorporate Innovative Data Sources

Poverty Map of Lanao del Sur
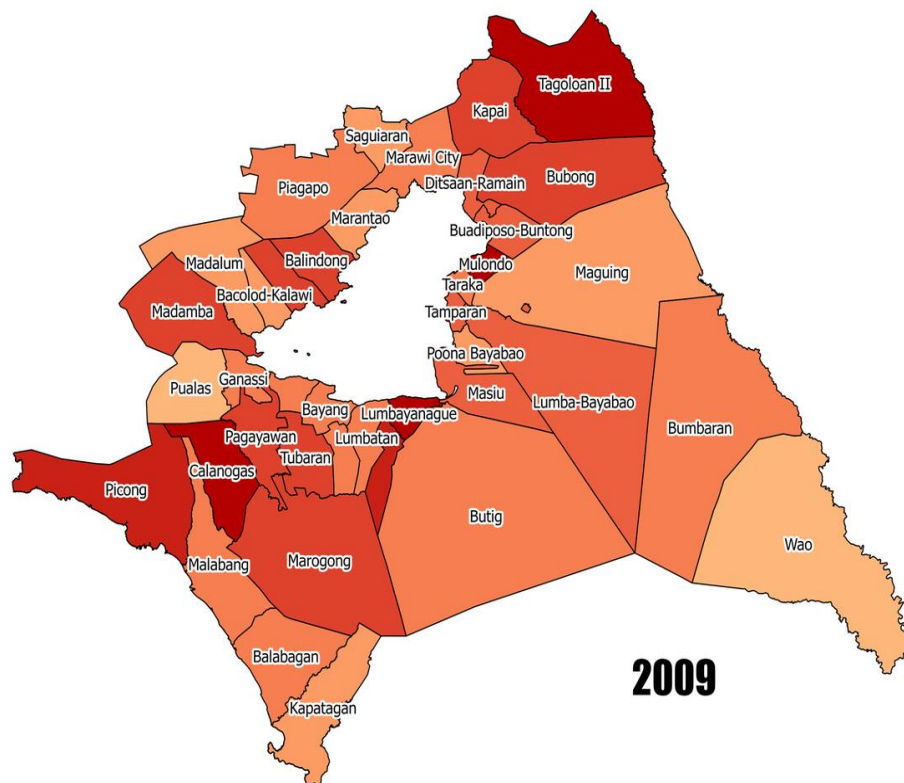
Average Intensity of Nighttime Lights

Source: Enhancing Small Area Poverty Estimates Using Satellite Imagery, presented during the Economist's Forum on 14-15 January 2019 by Arturo M. Martines, et.al.
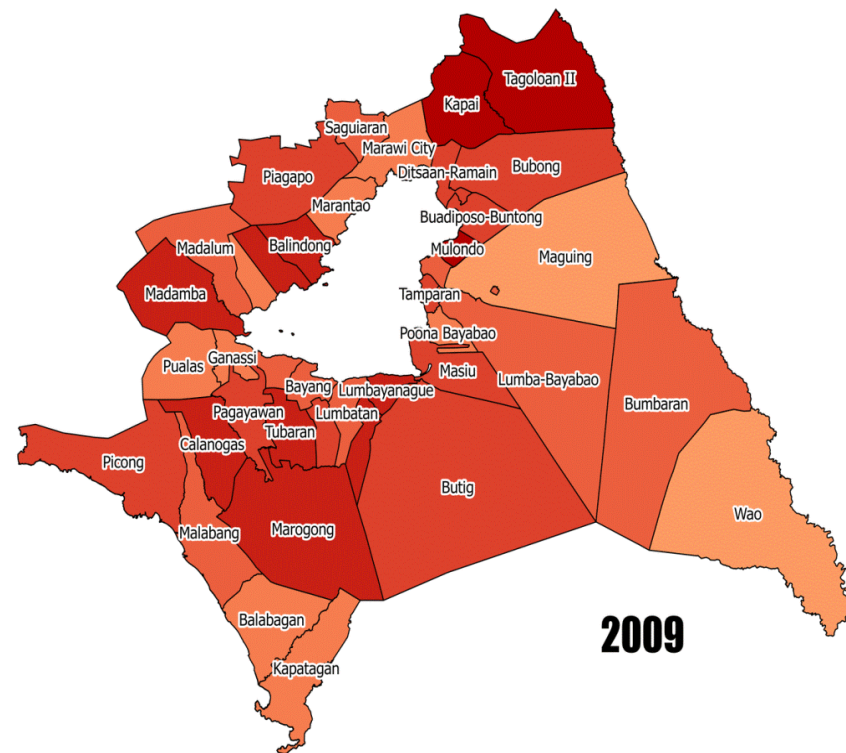
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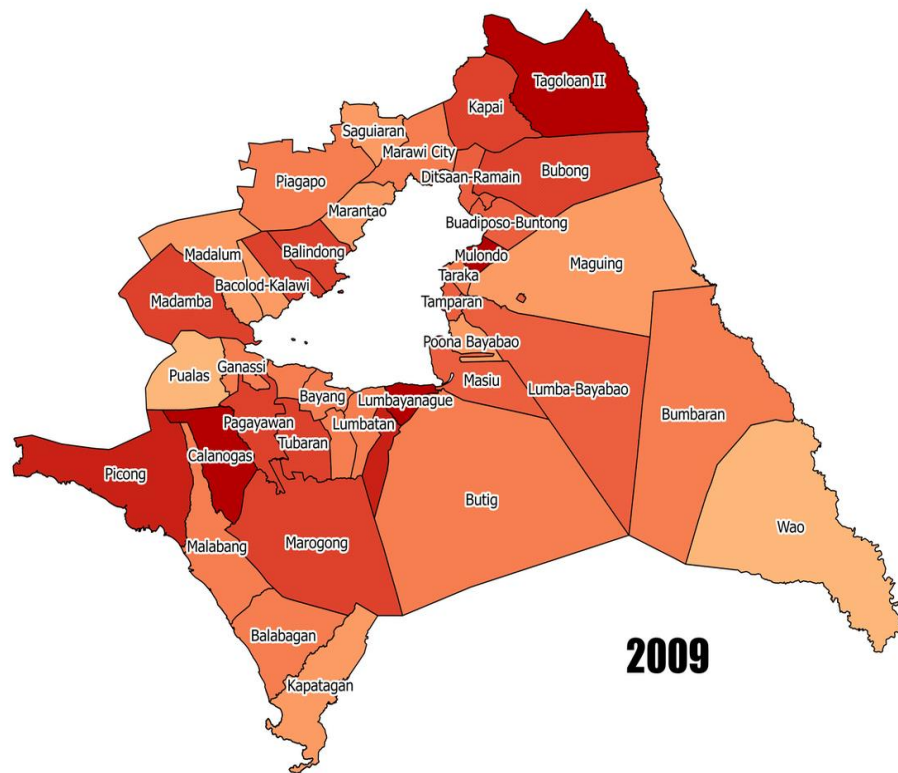
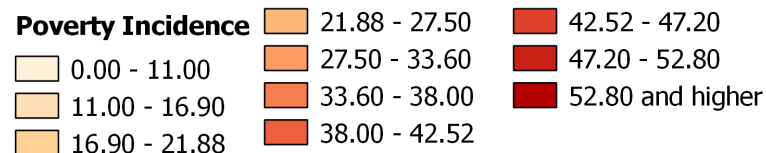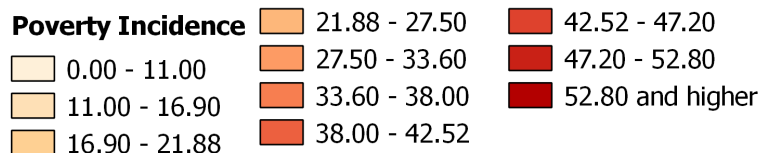Source: Enhancing Small Area Poverty Estimates Using Satellite Imagery, presented during the Economist's Forum on 14-15 January 2019 by Arturo M. Martines, et.al.

Thank you