SEEA IMPLEMENTATION IN INDONESIA

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GENERAL POLICY DIRECTION OF NATIONAL DEVELOPMENT 2015-2019

1. Inclusive and Sustainable Economic Growth
2. Sustainable Natural Resources Management and Value Added
3. Infrastructure Construction for Growth and Equity
4. Environmental Quality, Natural Disaster Mitigation, and Climate Change
5. Solid Development Foundation
6. Human Resources Quality and Just Public Welfare
7. Regional Development
The Story of SEEA in Indonesia

1990 Indonesia begin the compilation of integrated system of environmental-economic accounting (Sisnerling)

1993 UNSD Handbook of National Accounting: Integrated Environmental and Economic Accounting

2001 Adoption of 1993 Handbook in Sisnerling Indonesia

2003 Updated SEEA

2003 Updated SEEA

2012 SEEA-CF was adopted by UNSC as international statistical standard

2014-15 Indonesia was selected as pilot country to test SEEA-Agri (SEEA AFF)

Regional Workshop on Physical Energy Flow Accounts and Air Emission Accounts Compilation

Dec 2015/Jan 2016 WAVES program concept for Indonesia was approved by the World Bank

Implementation of 2012 SEEA-CF in Sisnerling Indonesia

Indonesia National Plan for Advancing Environmental-Economic Accounting
Indonesia National Plan to Implement SEEA

**Participation**
- Core members: Ministry of Planning (BAPPENAS), Statistics Indonesia (BPS), Ministry of Finance (Menkeu), Ministry of Environment (KLB)
- SEEA Steering Committee
- Implementation plan
- Access to external expertise
- A common geospatial infrastructure and other statistical infrastructure
- Statistical standards

**Enabling factors**
- Building priority ecosystem accounts:
  - Data inventory
  - Data exchange
  - Data quality assessments
  - Data development (integration)
  - Application of common concepts, classifications and standards
- Capacity building: Human resources
- Access to data
- Coordination with related national and international activities
- Funding proposals

**Activities**
- Land accounts (including, forest, agriculture and ownership)
- Water asset, supply and use accounts
- Carbon stock, supply and use accounts
- Ecosystem service accounts (flood protection)
- Economic aggregates: Adjusted Net Savings
- Mainstreaming of environmental-economic accounts into planning and decision making
- Reduced institutional coordination within Indonesia
- Improved data infrastructure
- Increased awareness and technical capacity
- Enhanced coordination of support from international and donor agencies
- Stronger links with existing platforms for sustainable development and green economy
- A more integrated, effective and sustainable National Statistical System

**Outcomes**
- A comprehensive set of environmental-economic accounting information
- Enhanced institutional coordination within Indonesia
- Improved data infrastructure
- Increased awareness and technical capacity
- Enhanced coordination of support from international and donor agencies
- Stronger links with existing platforms for sustainable development and green economy
- A more integrated, effective and sustainable National Statistical System
BPS-Statistics Indonesia has been producing asset accounts for selected natural resources since 1997.

Line ministries produce their own data

Forest inventory, agriculture statistics, energy statistics

NCA/ SISNERLING

Long-list of development priorities – Competing sectoral agendas

Missing Link...??

How to create linkage between NCA and Development Policy Exercise (among competing sectoral agendas) in Indonesia?
Linking policy demand, accounts, and data sources
Implementation methodologies

Institutional framework
- High level commitment, and engagement of partners; common coordination; data collection/sharing implications
- Advisory committees
- Legislation, mandates to coordinate, produce, supply inputs etc.
- Inter-institutional commitments for production of integrated statistics
- Inter-departmental commitments – service-level agreements
- Programme governance structure development

Roles and responsibilities for environmental-economic accounting
- Working groups, Advocacy
- Workshops – policy, awareness-building, etc.
- Demonstrations, Feasibility
- Proof of concept – experimentation, structural change,
- Training sessions
- Customised communications plans

Environmental-Economic accounts production process
- Data collection (or generation – through sampling, inventories/surveys, detailed process-modelling, remote-sensing applications, course-process modelling);
- data harmonization (processing, quality control, imputation);
- accounting inputs;
- accounting outputs estimation
- accounts validation

Research, development and experimentation
- Accounting classifications, with standardised item definitions and measurement methods
- Country specific classification of ecosystem assets
- Units for ecosystem accounting
- Environmental indicators and aggregates
- Up scaling and downscaling
- Valuation
- Validation data and specific quality criteria need to be developed to formally track progress
Approach in compiling Indonesia’s land account

Ministry of Environment and Forestry (MEF)

Land Cover Data

BPS – Statistics Indonesia

Geospatial Processing

Statistical Processing

Data Dissemination

• Prepared Land Cover by province and year
  • Calculate Area
  • Calculate Land Cover Change

• Calculate Gross Change tables
  • Calculate Net Change tables
Compilation Strategy

Data Collection
- Data was populated by BPS
- Stakeholders were informed

Accounts Compilation
- Data was organized in the framework template

Validation
- Internal and external consistency
- Plausibility

- Divide team into groups
- Each group responsible for 1 account to be compiled
- Meet regularly to update on progress (every month)
- Quarterly team meeting to address issues
- End-year dissemination
- Plan for next year

End-year dissemination

Plan for next year
Dealing with Issues

capacity, staffing/financing/resources

- Send employee to conference to learn on new development or other countries experience
- Offer coaching from senior to junior staff
- Due to limited resources, establish clear goals
- Offer courses for learning, online or in-site
- Sharing contents such as literatures to spread the knowledge
- Group collaboration to make finance/resources efficiently used
Dealing with Issues

working with line ministries and other agencies

Create connection with line ministries/other agencies based on what’s their need

Offer SEEA as the international standard of environmental-economic statistics in accounting framework

Testing new initiative to engage line ministries/other agencies to be more involved
Dealing with Issues

communication and dissemination

- Organize or participate in events to showcase works being done in implementing SEEA in Indonesia
- Effectively post your progress through popular social media
- Be specific and relevant to your audience, timely dissemination
- Be compelling in delivering SEEA works in Indonesia to show it can make an impact
Things that worked well so far

Build partnership with key stakeholders to gain **access to sectoral data and map**

Intensify the **socialization** of the results obtained with policy makers

Need to make **operational manual** for each account compiled

Use various **international initiatives** to help implementing SEEA
SCOPE OF SEEA IMPLEMENTATION IN 2017

- Asset Accounts
-流 Accounts
- Environmental Activity Accounts
- Environmentally adjusted national accounts aggregates
- Environmentally-adjusted GDP

LAND OF INDONESIA
MINERAL & ENERGY
TIMBER
EPEA/EGSS Indepth Study in 17 provinces

ENERGY
AIR EMISSION
Going forward: a reflection

Need a dedicated unit for SEEA under the national account

Need close collaboration with Line ministries and Subject matter areas

Need international supports for capacity building, communicating, disseminating strategy
SCOPE OF SEEA IMPLEMENTATION IN 2017

LAND OF INDONESIA

MINERAL & ENERGY

TIMBER

EPEA/EGSS Indepth Study in 17 provinces

Asset Accounts

Flow Accounts

Environmental Activity Accounts

Environmentally adjusted national accounts aggregates

Environmentally-adjusted GDP

ENERGY

AIR EMISSION
SDGs Indicators derived from Land Accounts

15.1.1. Percentage of Forest Area in Indonesia

- 2009: 51.45%
- 2014: 50.45%

15.2.2. Forest Loss in Indonesia, 2009-2014

- 1,913,877 ha
- 1.00%
MINERAL AND ENERGY ASSET ACCOUNTS 2016

**Mineral Resources**
- Bauxite: 13%
- Nickel: 11%
- Silver: 7%
- Tin: 16%
- Gold: 53%

**Energy Resources**
- Coal: 58%
- Natural Gas: 34%
- Oil: 7%
- Geothermal: 1%
- Coal: 58%
Energy Intensity by Industries and Households, 2011-2015 (GJ per million IDR)
Renewable Energy Share in the Total Final Energy Consumption (percent)

Hydro
Geothermal
Biomass
GREEN ECONOMY IN INDONESIA

State Government Expenditure on Environmental Function, 2014-2016 (in trillion IDR)

- 2014: 9.33 trillion IDR
- 2015: 9.87 trillion IDR
- 2016: 8.85 trillion IDR

Source: LKPP 2015-2016 (Audited)

Internal Operational Expenditure of Industries by Environmental Protection Category in 2016

- Soil / Groundwater: 16%
- Solid waste: 25%
- Wastewater: 9%
- Nature Protection: 2%
- Air: 1%
- Sound / vibration: 18%
- Others: 1%

Source: EPEA/EGSS Indepth Study 2017 in 17 provinces (pilot survey)
Enviromentially Adjusted Gross Domestic Product

GDP and adjusted GDP of Indonesia, 2012-2016 (in trillion IDR)

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<th>2013</th>
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THANK YOU
TERIMAKASIH