Green economy and its recent developments on measurement and indicators

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Introduction: Definitions

At a visionary level, a **Green Economy** is one that results in increased human well-being and social equity, while significantly reducing environmental risks and ecological scarcities (UNEP, 2011).

“**Green growth** means fostering economic growth and development, while ensuring that **natural assets** continue to provide the resources and environmental services on which our **well-being relies**” (OECD, 2011)
Introduction: Definitions

- There is no one approach to a green economy.
- In a green economy, growth in income and employment are driven by public and private investments.
- These investments need to be catalyzed and supported by targeted public expenditure and policy reforms.
- And, a green economy recognizes natural capital as a critical economic asset.
Introduction: Definitions

- **GE as a vehicle for sustainable development:**
  - Resource efficiency (*land use, water*)
  - Low carbon development (*clean energy, forests*)
  - Equity and environmental preservation (*access to food and energy, trade*).

- **GE as an action-oriented approach that needs to be customized and developed locally.**
Rationale for a GE
What do we learn from other countries?

BAU investments dominate the scene

Total investment (or share of investment of GDP)

Time
**Rationale for a GE**

What do we learn from other countries?

*After a few strong years, GDP growth declines*
Rationale for a GE
What do we learn from other countries?
Rationale for a GE
What do we learn from other countries?

Green investments reduce costs and
Create new opportunities

BAU investment

Green investment

Time

Total investment (or share of investment of GDP)
Rationale for a GE
What do we learn from other countries?

GDP can grow faster and more sustainably

GDP growth rate

Green Growth Interventions

Business as Usual

Time

GDP can grow faster and more sustainably


Present

Future
Rationale for a GE
What do we learn from other countries?
Measuring the GE: indicators

A quest for multiple dividends: what is the role of forests?

Example of the multiple benefits generated by green economy policy interventions. Several stakeholders may benefit from a single intervention, formulated, assessed, monitored and evaluated with a variety of indicators across sectors.
Measuring the GE: indicators
Green Growth Knowledge Platform (GGKP): harmonizing approaches
Measuring the GE: analysis
Measuring the GE: policy cycle

Issue Identification and Agenda Setting

Policy evaluation makes use of the indicators and projections identified in the first two steps, to evaluate the interventions and the emergence of unexpected impacts and trends.

Issues, and relative policy goals, can be of general nature, social, economic and environmental (with the latter being more relevant for UNEP).

Policy formulation focuses on issues and opportunities and on the broader advantages and disadvantages of policy implementation.

Decision making is based on the results of the policy formulation stage, and should account for the forecasted impacts of policy implementation on the environment, the economy and overall well-being of the population.
A green economy must be inclusive and pro-poor. Measuring it requires customized approaches. Estimating localized impacts is crucial.

**TEEB (2010) indicates that Ecosystems must be conserved, not destroyed, to solve Poverty...**

Ecosystem services as a % of classical GDP:

- **Indonesia**

Ecosystem service-dependent poor people:

- **99 million**

Ecosystem services consumed by the poor as a % of “GDP of the poor”:

Source: Gundimeda and Sukhdev, TEEB for National & International Policy
GE Scenarios and Model Integration
System mapping for the ‘Road to Dawei’

• What has been done for the pilot project of the “Road to Dawei”?

• How was it customized?

• How was the available knowledge captured and integrated in the model?

• What are the social, economic and environmental advantages and disadvantages of the various scenarios?
Integration of indicators along the policy cycle

Road construction

+ employment opportunities
Integration of indicators along the policy cycle

- Road construction
  - employment opportunities
  - Population
Integration of indicators along the policy cycle

Road construction

+ employment opportunities
+ Population
+ food demand
Integration of indicators along the policy cycle
Integration of indicators along the policy cycle
Integration of indicators along the policy cycle
Integration of indicators along the policy cycle

Road construction

+ employment opportunities

agricultural land

+ food demand

water availability

+ water demand

+ water supply

Population
Integration of indicators along the policy cycle
Integration of indicators along the policy cycle

- Economic attractiveness
- Investments in agriculture for export
- Employment opportunities

Road construction

- Agricultural land
- Food demand
- Water availability
- Water supply

Population

Water demand

Integration of indicators along the policy cycle

- Economic attractiveness
- Investments in agriculture for export
- Employment opportunities
- Population
- Food demand
- Water demand
- Water availability
- Water supply
- Use of chemical fertilizers

Road construction

Integration of indicators along the policy cycle
Integration of indicators along the policy cycle

This project supports economic growth and sustainable development!
Integration of indicators along the policy cycle

- Economic attractiveness
  - Road construction
  - Investments in agriculture for export
  - Employment opportunities

- Agricultural productivity
  - Agricultural land
  - Forest land

- Use of chemical fertilizers
  - Agricultural land

- Food demand
  - Water demand
  - Water availability
  - Water supply

Population
Integration of indicators along the policy cycle

- Economic attractiveness
- Investments in agriculture for export
- Agricultural productivity
- Use of chemical fertilizers
- Forest ecosystem services
- Forest land
- Agricultural land
- Food demand
- Water availability
- Water demand
- Water supply

Road construction

+ Employment opportunities
Integration of indicators along the policy cycle

- Economic attractiveness
- Investments in agriculture for export
- Agricultural productivity
- Agricultural land
- Soil quality
- Use of chemical fertilizers
- Forest ecosystem services
- Forest land
- Water supply
- Food demand
- Water availability
- Water demand
- Employment opportunities
- Population

Road construction
Our project creates more problems!

Integration of indicators along the policy cycle

Road construction

+ Investments in agriculture for export
+ Economic attractiveness

- soil quality
- use of chemical fertilizers
- Forest ecosystem services
- Forest land

- agricultural land
+ agricultural productivity

+ water supply
+ water availability
+ food demand
+ Population
+ employment opportunities
But systemic solutions can be found.
Integration of indicators along the policy cycle

- Economic attractiveness
- Investments in agriculture for export
- Agricultural productivity
- Soil quality
- Use of chemical fertilizers
- Forest ecosystem services
- Forest land
- Agricultural land
- Ecological agriculture
- Afforestation and reforestation
- Water supply

Road construction

Population

Integration of indicators along the policy cycle
Thank you!

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