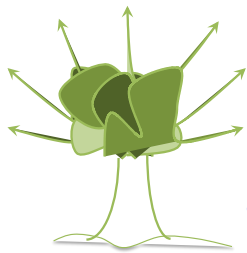


Integrated Assessment of Tools and Methodologies for Inclusive Green Economy in Africa

Andrea M. Bassi, Ph.D.
Founder and CEO, KnowlEdge Srl

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KnowlEdge Srl



KnowlEdge Srl

Overview of the report

1. Introduction
2. IGE methods, tools and methodologies
3. Review of IGE Methodological Frameworks and Tools: Comparative Assessment
4. Assessment of Statistical Capacity in African countries
5. Case Study: Ethiopia's Climate Resilient Green Economy Strategy
6. Way forward: In-Depth Analysis and Capacity Building

Overview of the report

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 - **I.1. Origins and Definitions of IGE, and Priority Areas for Policy Making**
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 - I.1.2. Priority Areas for Policy-Making in Africa
 - **I.2. Justification and objectives**
 - **I.3. Conceptual framework**
 - **I.4. Structure of the report**

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 - Poverty and Social Impact Analysis
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 - Environmental Impact Assessment
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 - 2.1.5. Integrated assessment
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 - System of Environmental and Economic Accounting (SEEA)
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 - Ecosystem services assessment/valuation tools (e.g. InVEST)
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 - 2.3.1. Relevance and support to the Integrated Policy-Making Process
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- **5. Case Study: Ethiopia's Climate Resilient Green Economy Strategy**
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Overview of the report

- **6. Way forward: In-Depth Analysis and Capacity Building**
- **7. Conclusions**

1. 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).

1. Definitions

Green Growth

“Economic progress that fosters environmentally sustainable, low-carbon and socially inclusive development” (UN-ESCAP et al., 2010)

“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)

1. Definitions

Circular Economy

An economy that reduces the consumption of resources and the generation of wastes, and reuses and recycles wastes throughout the production, distribution and consumption processes.

1. Definitions

Green jobs

“Green jobs are those jobs maintained or created in the transition process towards a green economy that are either provided by low-carbon intensive industries (enterprises) or by industries (enterprises) whose primary output function is to greening the economy”

(IILS, 2011)

1. Definitions

- There are several definitions, all pointing to the same concepts.
- The definitions originate from the mandate of the organizations that create them. For instance:
 - UNEP: emphasis on the environment and social inclusiveness, for developing countries.
 - OECD: emphasis on technology and growth, for more developed countries (no emphasis on inclusiveness).
- The concepts have to be customized to Indonesia's context to be relevant for policy making.

1. Definitions

At the operational level, a **Green Economy** is seen as one whose growth in income and employment is driven by investments that:

- Reduce carbon emissions and pollution;
- Enhance energy and resource efficiency;
- Prevent the loss of biodiversity and ecosystem services (EMG, 2011).

1. 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** that reduce carbon **emissions** and pollution, enhance **resource and energy efficiency**, and prevent the loss of **biodiversity** and ecosystem services.
- Moreover, 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.

1. Definitions

A green economy must be **in line with national priorities** and development targets:

- Developing specific national strategies and action plans.
- Engaging a broad variety of national stakeholders.
- Creating knowledge and national expertise to support the shift to new production and consumption patterns.

1. Definitions

A green economy must be **inclusive and pro-poor**, hence it has to be an

Inclusive Green Economy (IGE):

- Focus on food security and access to water and electricity.
- Fair distribution of costs and benefits, focusing on poor communities.
- Alignment with the MDGs and post-2015 global development agenda.

1. Priority Areas for Policy-Making in Africa

- An Inclusive Green Economy (IGE) can support Africa in the following areas, among others (ECA, FAO, UNEP, UNIDO, & UNDP, Forthcoming):
 - Food security
 - Energy security
 - Industrial development
 - Trade
 - Natural capital valuation + preservation of ecosystem services

1. IGE tools?

- The green economy is defined by UNEP as *“An economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.”*
- The misallocation of capital in the last two decades has been identified as one of the main causes contributing to the manifestation of several concurrent crises.
- To curb negative trends and trigger the transition, investments are needed. These would be targeting behavioral change, through the implementation of targeted public expenditure, policy reforms and regulation changes.

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- To curb negative trends and trigger the transition, investments are needed. These would be targeting behavioral change, through the implementation of targeted **public expenditure, policy reforms** and **regulation changes**.

1. IGE tools?

- The performance of these investments is evaluated based on their capacity to maintain, enhance and rebuild natural capital as a critical economic asset and source of public benefits.
- Along this line, human well-being and social equity, as variables affected by environmental risks and ecological scarcities, are critical layers to consider.
- Coupling natural and human capital with the analysis of economic capital is crucial to assess the impact of interventions on economic growth and resilience, and closes the loop on capital misallocation.

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1

Agenda Setting

Tools (e.g. scenario creation)

Policy Formulation

Tools (e.g. scenario forecasting and complementary approaches)

Policy Evaluation

Tools (e.g. scenario forecasting and complementary approaches)

Decision Making

Policy Implementation

Economy

Society

Environment

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1+2

DSS; PSIA; GEI; Input/Production/Output indicators; SDG; SEEA; LCA; Nested and Integrated models, ...

Policy Evaluation

Agenda Setting

DSS; GEI; Input/Production/Output indicators; SEEA; ES valuation; CLD; Delphi Analysis; SaS; Spatial planning; Nested and Integrated models, ...

Policy Formulation

DSS; Feasibility Studies; PSIA; SEA; EIA; GEI; SDG; SNA; SAM; SEEA; ES valuation; CLD; Decision Trees; Spatial planning; CGE; Energy optimization models; Nested and Integrated models, ...

Governance Assessment, decision trees, ...

Policy Implementation

Decision Making

Possibly all results...

2. IGE methods, tools and methodologies

Five main groups of **methodologies**, each of which makes uses of tools:

- **Economic assessment**
- **Social assessment**
- **Environmental assessment**
- **Governance assessment**
- **Integrated assessment**

2. IGE methods, tools and methodologies

Five main groups of methodologies, each of which makes uses of tools:

- **Economic assessment:** these are assessment frameworks designed to support the analysis of policies, projects and investments with respect to their expected economic outcome. An example of this type of framework is the methodology for conducting feasibility studies.

2. IGE methods, tools and methodologies

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- **Social assessment:** these frameworks provide guidance to decision makers on how to evaluate policy impacts on different social groups (i.e., inclusiveness), as well as to review and monitor key governance indicators in relation to policy objectives, as a means to identify gaps and capacity building needs. A widely used methodology for conducting social assessments is Poverty and Social Impact Analysis (PSIA), which facilitates the assessment of policy inclusiveness and pro-poor orientation.

2. IGE methods, tools and methodologies

Five main groups of methodologies, each of which makes uses of tools:

- **Environmental assessment:** this category includes methodological frameworks that combine tools for the evaluation of the environmental impacts of development strategies, policies, projects and investments. They include: (1) Strategic Environmental Assessment (SEA) and (2) Environmental Impact Assessments (EIA)

2. IGE methods, tools and methodologies

Five main groups of methodologies, each of which makes uses of tools:

- **Governance assessment:** the formulation, implementation, monitoring and evaluation of integrated IGE policies require efficient and transparent institutional frameworks and processes at both the national and local level. In order to conduct governance assessments, decision makers can adopt specific methodological frameworks, such as UNDP's governance assessment.

2. IGE methods, tools and methodologies

Five main groups of methodologies, each of which makes uses of tools:

- **Integrated assessment:** the methodological frameworks listed above allow the assessment of different dimensions of IGE. On the other hand, approaches exist to conduct a more comprehensive (or integrated) IGE assessment. As an example, by integrating multiple data and tools in a unique assessment framework, Decision Support Systems (DSS) provide valuable guidance to decision makers for the integrated evaluation of IGE policies

2. IGE methods, tools and methodologies

Four main groups of **tools**, each of which makes uses of tools:

- **Indicators and measurement frameworks**
- **Policy/project assessment tools**
- **Scenario creation tools (qualitative)**
- **Scenario forecasting tools (quantitative)**

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 - Causal Loop Diagrams (CLDs)
 - Delphi analysis and Story and Simulation (SaS)
 - Decision tree

2. IGE methods, tools and methodologies

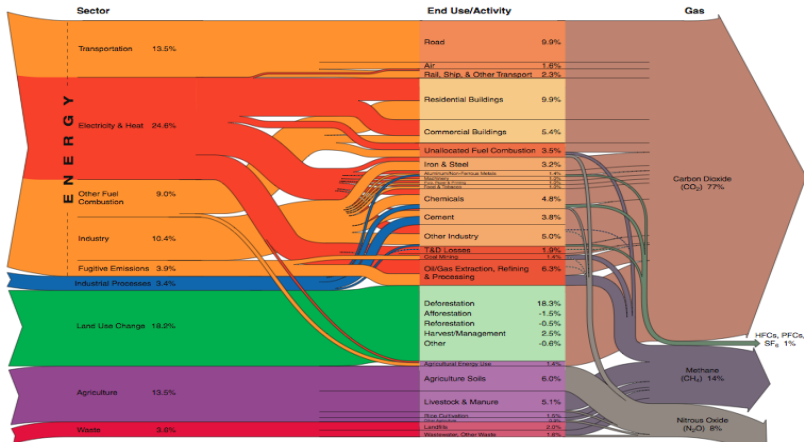
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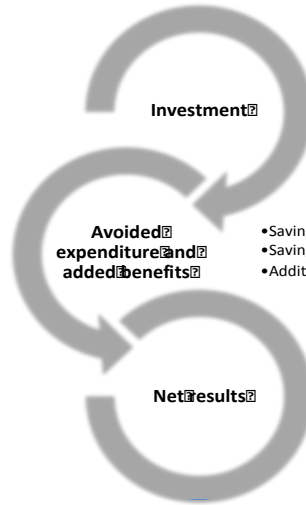
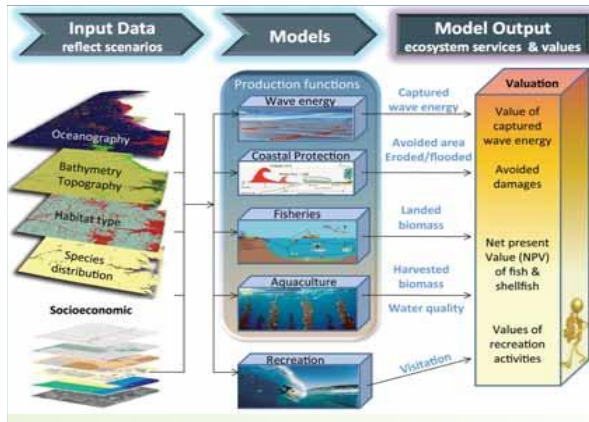
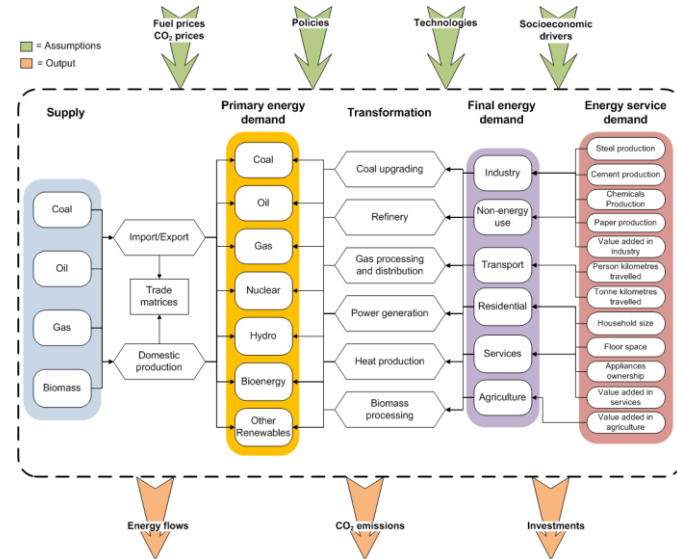
- Spatial planning tools
- Computable General Equilibrium (CGE)
- Energy Optimization models
- Nested (or coupled) models
- Integrated Models

2. Examples of Models

Sectoral and Thematic Models



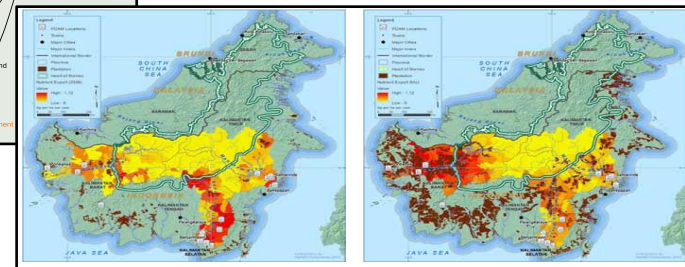
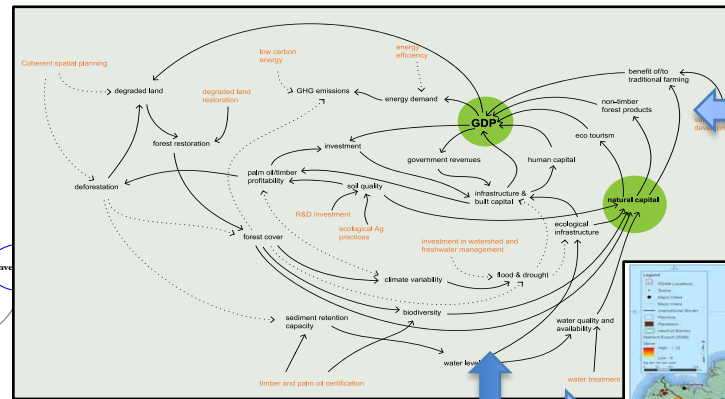
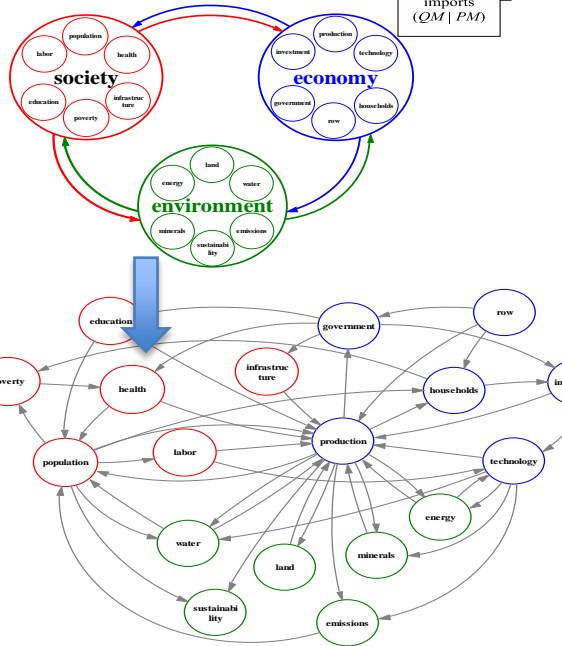
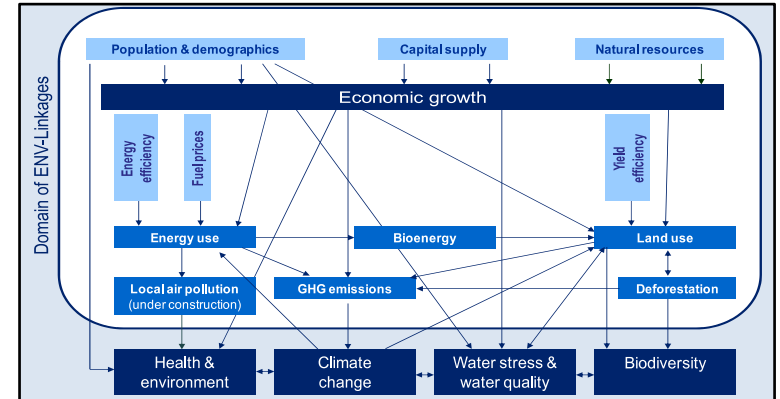
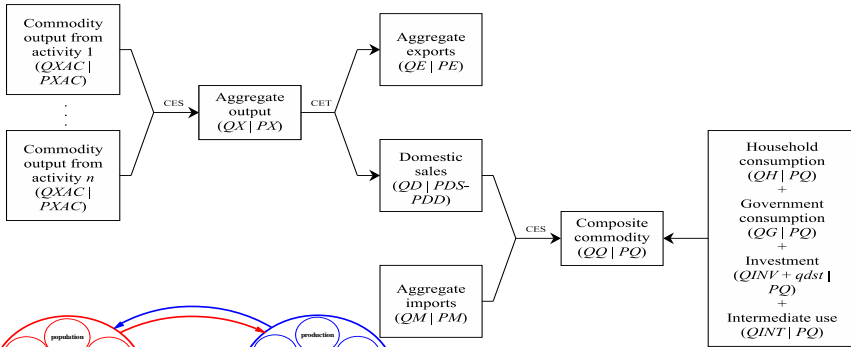
Source: IEA. All data is for 2000. All calculations are based on CO₂ equivalents, using 100-year global warming potentials from the IPCC (1996), based on a total global estimate of 41,785 MCO₂ equivalent. Land use change includes both emissions and absorptions, see Chapter 16. See Appendix 2 for detailed description of sector and end use/activity definitions, as well as data sources. Dotted lines represent flows of less than 0.1% percent of total GHG emissions.



- Energy efficiency investment
- Renewable energy investment
- Thermal power generation investment
- Savings on avoided electricity expenditure
- Savings on avoided coal consumption for power generation
- Additional net employment and income generated
- Savings minus investments
- Return on investment
- Break-even point

2. Examples of Models

National and cross-sectoral models



2.3 Assessment criteria

Four main criteria are used to assess the **suitability to the policymaking process**, in their capability to support IGE assessments:

1. Support to the different stages of the policymaking process;
2. Target audience (multi-stakeholder involvement);
3. Time horizon of the analysis;
4. Complementarity with other methodologies and tools.

2.3 Support to the Policymaking cycle

	Agenda setting	Policy formulation	Decision making	Policy Implementation	Monitoring and Evaluation
Methodological Frameworks					
Economic Assessment					
Feasibility Studies		x			
Impact Analysis		x			
Social Assessment					
PSIA		x			x
Environmental Assessment					
SEA	x	x			x
EIA	x	x			x
Governance Assessment					
UNDP's Governance Assessments		x		x	
Integrated Assessment					
DSS	x	x			x
GE Tools					
Indicators and measurement frameworks					
Green Economy Indicators	x	x			x
Input Production and Output Indicators	x				x
ECA's SD Indicators		x			x
SNA & SAM		x			x
SEEA	x				x
Policy/Project Assessment tools					
ES valuation	x				
CBA		x			
LCA	x				x
Scenario creation tools and methodologies (qualitative)					
CLD	x	x			x
Delphi Analysis & SaS	x				
Decision tree		x		x	
Scenario forecasting tools and methodologies (quantitative)					
Spatial planning tools	x				x
CGE		x			
Energy Optimization Models		x			
Nested models	x	x			x
Integrated models	x	x			x

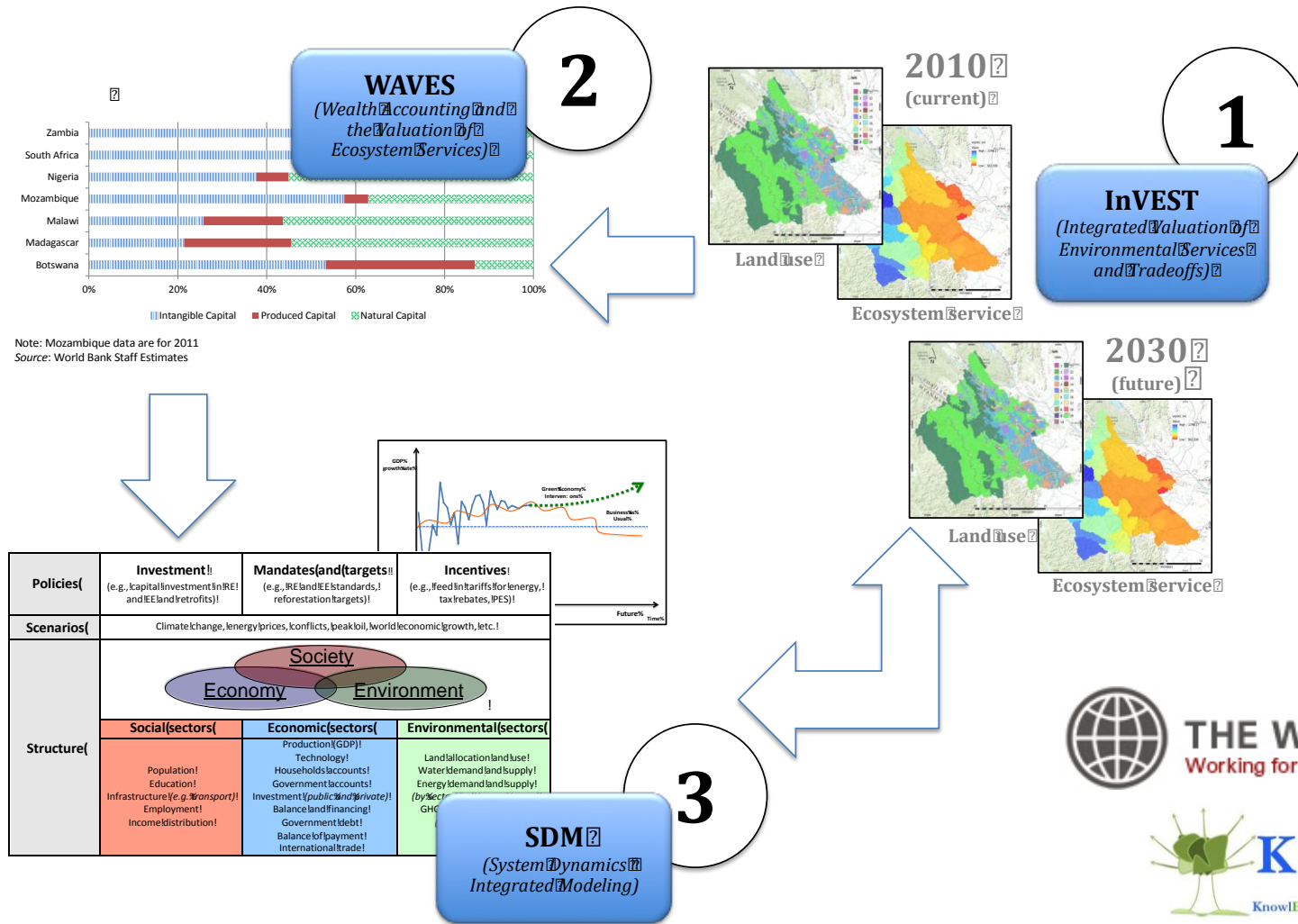
2.3 Target audience (multi-stakeholder involvement)

	Policy makers	Private sector	Economists and statisticians	Environment specialists	Political scientists and sociologists
Methodological Frameworks					
Economic Assessment					
Feasibility Studies	x	x	x	x	
Impact Analysis	x		x	x	
Social Assessment					
PSIA	x				x
Environmental Assessment					
SEA	x	x		x	
EIA		x		x	
Governance Assessment					
UNDP's Governance Assessments					x
Integrated Assessment					
DSS	x	x		x	
GE Tools					
Indicators and measurement frameworks					
Green Economy Indicators	x		x		
Input/Production and Output Indicators	x			x	
ECA's SD Indicators	x			x	x
SNA & SAM			x		
SEEA				x	
Policy/Project Assessment Tools					
ES Valuation	x		x	x	
CBA	x	x	x		
LCA		x	x	x	
Scenario Creation Tools and Methodologies (Qualitative)					
CLD	x		x	x	x
Delphi Analysis & SaS					x
Decision Tree					x
Scenario Forecasting Tools and Methodologies (Quantitative)					
Spatial Planning Tools				x	
CGE			x		
Energy Optimization Models		x			
Nested Models			x	x	
Integrated Models			x	x	

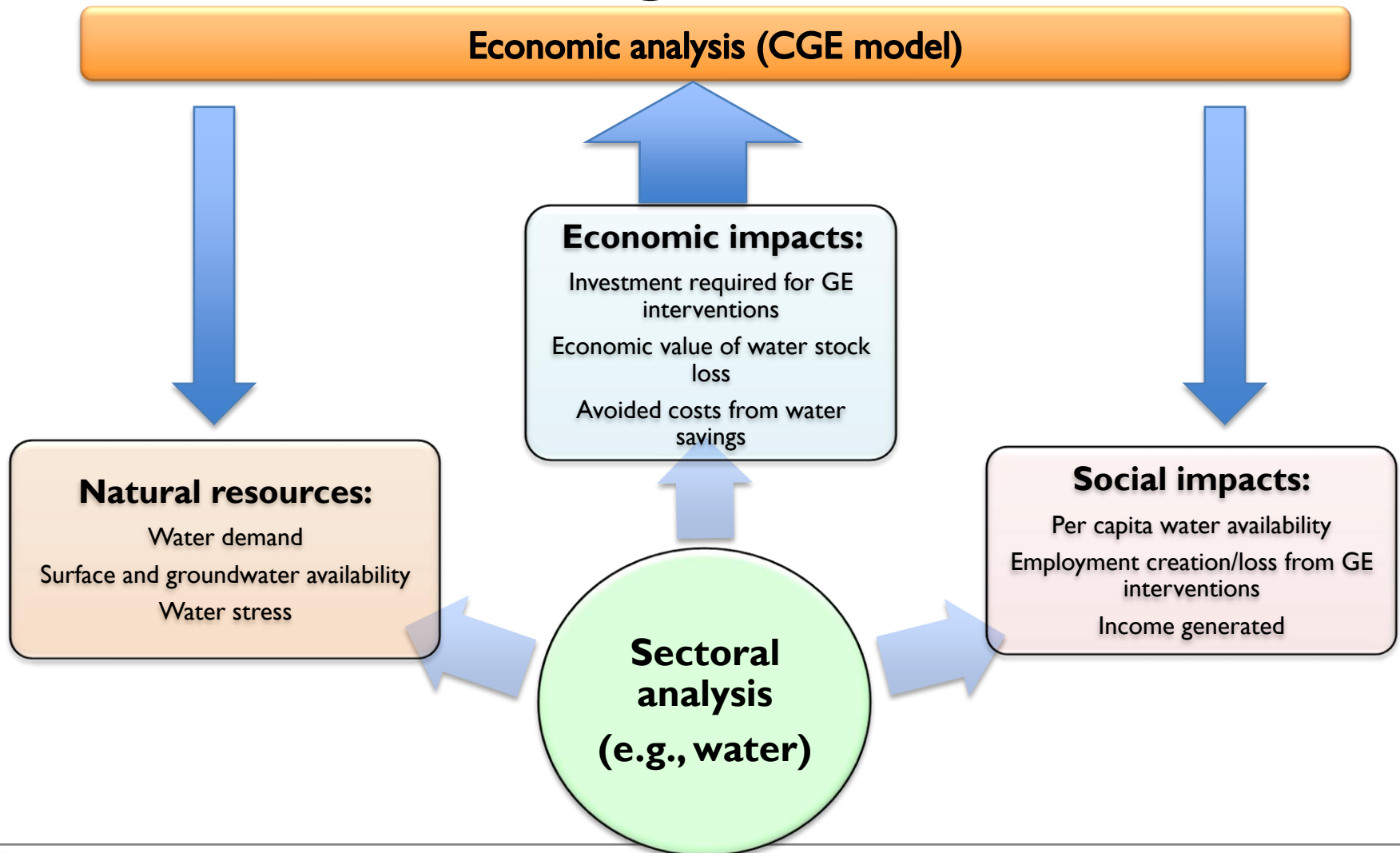
2.3 Time horizon of the analysis

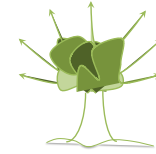
	Snapshot	Short term	Medium term	Long term
Methodological Frameworks				
Economic Assessment				
Feasibility Studies	x			
Impact Analysis	x		x	x
Social Assessment				
PSIA	x			
Environmental Assessment				
SEA		x	x	x
EIA	x	x	x	x
Governance Assessment				
UNDP's Governance Assessments	x			
Integrated Assessment				
DSS		x	x	x
GE Tools				
Indicators and measurement frameworks				
Green Economy Indicators		x	x	x
Input Production and Output Indicators		x	x	x
ECA's SD Indicators		x	x	x
SNA & SAM	x			
SEEA	x			
Policy/Project Assessment tools				
ES Evaluation	x			
CBA	x			
LCA	x			
Scenario creation tools and methodologies (qualitative)				
CLD		x	x	x
Delphi analysis & SaS		x		
Decision Tree	x			
Scenario forecasting tools and methodologies (quantitative)				
Spatial Planning Tools			x	x
CGE	x			
Energy Optimization Models			x	x
Nested Models		x	x	x
Integrated Models			x	x

2.3 Complementarity with other methodologies and tools



2.3 Complementarity with other methodologies and tools





Sectoral and geographically disaggregated impact analysis for households (e.g., savings).
Reallocation of funding.
Distributional effects and opportunities.

Economic flows across the key actors of the economy.

SAM

Social Accounting Matrix

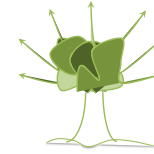
MARKAL

Energy sector analysis.
Optimization of energy supply, at least cost.

MACRO

(CGE model)

Macroeconomic assessment. Economic impact of energy prices.



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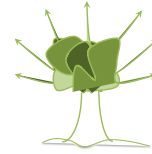
MACRO

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Macroeconomic assessment. Economic impact of energy prices.

Producer subsidies

Consumer subsidies



Sectoral and geographically disaggregated impact analysis for households (e.g., savings). Reallocation of funding. Distributional effects and opportunities.

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Energy production costs

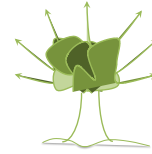
Energy (market) prices

Inflation

Producer subsidies

Consumer subsidies





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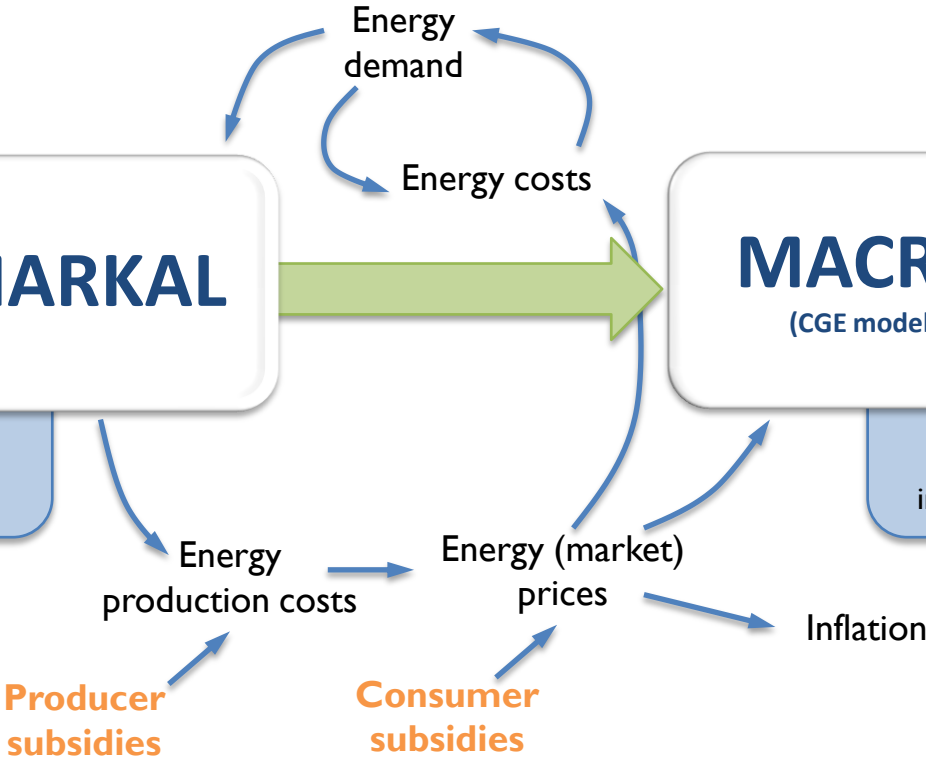
Economic flows across the key actors of the economy.

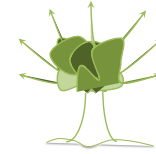


Energy sector analysis. Optimization of energy supply, at least cost.



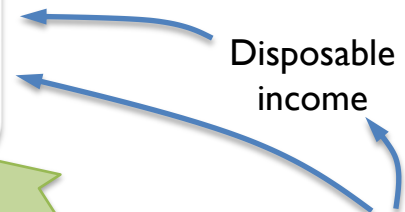
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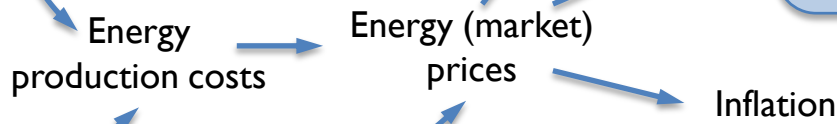
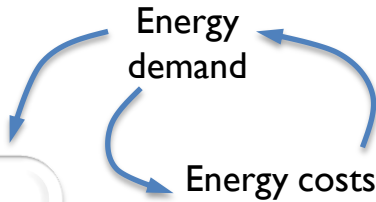
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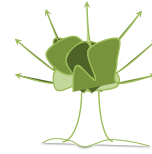
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Producer subsidies

Consumer subsidies



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Macroeconomic assessment. Economic impact of energy prices.

Producer subsidies

Consumer subsidies

Energy production costs

Energy (market) prices

Inflation

SAM

Social Accounting Matrix

MARKAL

MACRO

(CGE model)

Disposable income

Gross Domestic Product

Energy demand

Energy costs

Energy

(market) prices

production costs

Inflation

Producer subsidies

Consumer subsidies

SAM

Social Accounting Matrix

MARKAL

MACRO

(CGE model)

Disposable income

Gross Domestic Product

Energy demand

Energy costs

Energy

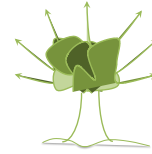
(market) prices

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Inflation

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Sectoral and geographically disaggregated impact analysis for households (e.g., savings). Reallocation of funding. Distributional effects and opportunities.

Economic flows across the key actors of the economy.



Household income, consumption, savings and investment

Disposable income

Gross Domestic Product

Energy demand

Energy costs



Energy sector analysis. Optimization of energy supply, at least cost.

Macroeconomic assessment. Economic impact of energy prices.

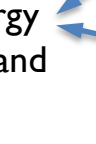
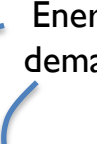
Energy production costs

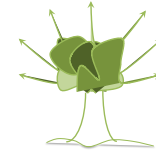
Energy (market) prices

Inflation

Producer subsidies

Consumer subsidies





Sectoral and geographically disaggregated impact analysis for households (e.g., savings). Reallocation of funding. Distributional effects and opportunities.

Economic flows across the key actors of the economy.



Household income, consumption, savings and investment

Disposable income

Gross Domestic Product

Energy demand

Energy costs



Energy sector analysis. Optimization of energy supply, at least cost.

Macroeconomic assessment. Economic impact of energy prices.

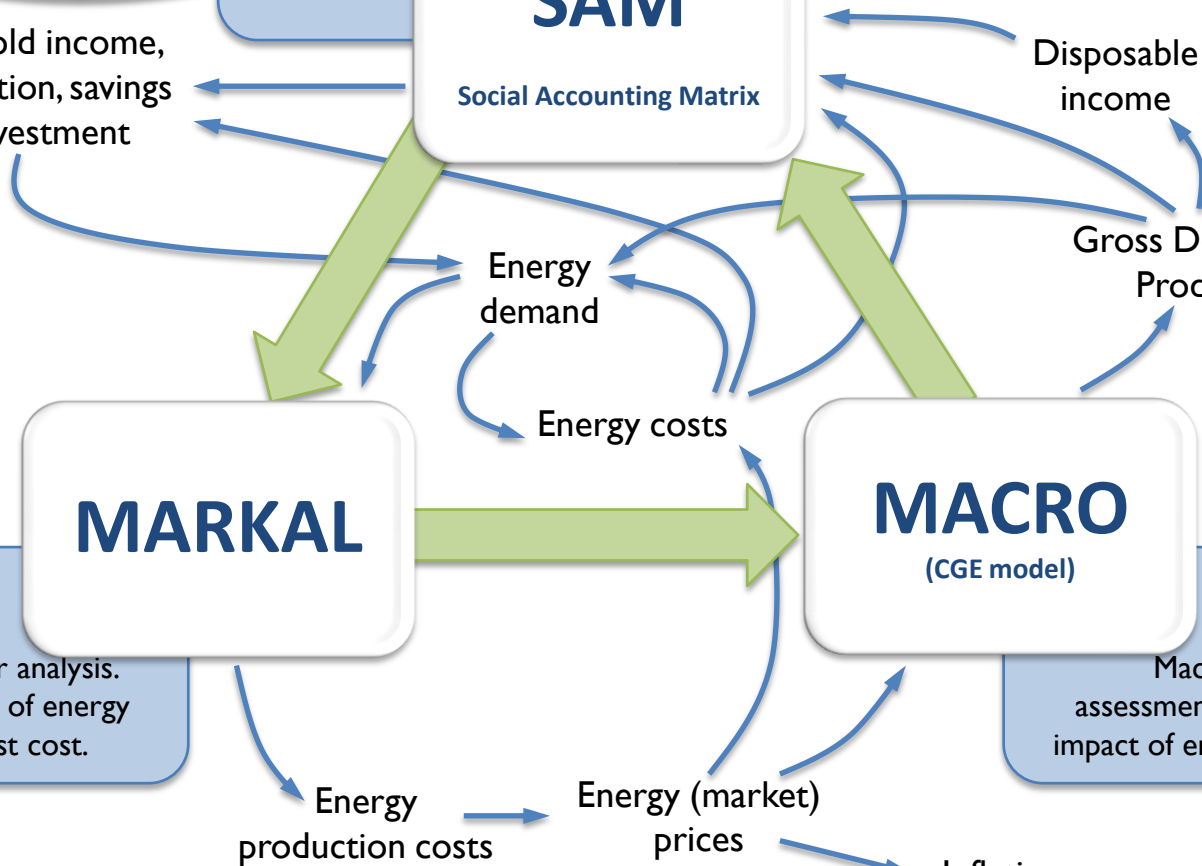
Energy production costs

Energy (market) prices

Inflation

Producer subsidies

Consumer subsidies



2.3 Assessment criteria

Four main criteria are used to assess the **suitability to the African context** of the reviewed methodologies and tools, in their capability to support IGE assessments:

1. Sectoral/thematic focus;
2. Ease of customization and use;
3. Data requirements and data availability;
4. Capacity development requirements .

2.3

Sectoral/thematic focus

	Integrated	Economic	Social	Environmental
Methodological Frameworks				
Economic Assessment				
Feasibility Studies		x		
Impact Analysis		x	x	
Social Assessment				
PSIA	x			
Environmental Assessment				
SEA				x
EIA				x
Governance Assessment				
UNDP's Governance Assessments	x			
Integrated Assessment				
DSS	x			
GET Tools				
Indicators and measurement frameworks				
Green Economy Indicators	x			
Input Production and Output Indicators	x			
ECA's SD Indicators	x			
SNA & SAM		x		
SEEA	x			
Policy/Project Assessment Tools				
ES Valuation				x
CBA	x	x		
LCA				x
Scenario Creation Tools and methodologies (Qualitative)				
CLD		x	x	x
Delphi analysis & SaS		x		
Decision Tree	x			
Scenario Forecasting Tools and methodologies (Quantitative)				
Spatial Planning Tools			x	x
CGE	x			
Energy Optimization Models			x	x
Nested Models	x			
Integrated Models	x			

2.3 Data requirements and data availability

	Data intensity	Type of data (Economic; Social; Environmental)	Examples of indicators/approaches
Methodological Frameworks			
Economic Assessment			
Feasibility Studies	Medium	Ec	Investments; Costs; Revenues; Technology
Impact Analysis	Medium	Ec; S	Investment; GDP; Revenues; Profits; employment.
Social Assessment			
PSIA	High	Ec; S	Income; Poverty; Equity; Access
Environmental Assessment			
SEA	High	En	Land Use; Emissions; Natural Capital
EIA	High	En	Land Use; Emissions; Natural Capital
Governance Assessment			
Governance Assessment	Medium	Ec; S	Accountability; Transparency; Law enforcement
Integrated Assessment			
DSS	High	Ec; S; En	Economic Growth; Social Well-being; State of natural capital
GE Tools			
Indicators and measurement frameworks			
Green Economy Indicators	High	Ec; S; En	Environmental trends; Policy costs; Policy impact on well-being and social inclusion
Input Production and Output Indicators	High	Ec; S; En	Natural resource extraction and use; production inputs; production outputs; environmental externalities
ECA's SD Indicators	High	Ec; S; En	Social, Economic and Environmental trends
SNA & SAM	High	Ec	National accounts and input-output tables
SEEA	High	Ec; En	Natural resources stocks and flows
Policy/Project Assessment tools			
ES Evaluation	Medium	Ec; En	Natural resources stocks and flows
CBA	High	Ec	Costs; Investments; Economic Returns; avoided costs
LCA	High	Ec; En	Inputs and outputs of production
Scenario creation tools and methodologies (qualitative)			
CLD	Low	Ec; S; En	Cause-effect relations
Delphi analysis & SaS	Low	Ec; S; En	Questionnaires; focus groups
Decision tree	Low	Ec; S; En	Key issues; Policy options
Scenario forecasting tools and methodologies (quantitative)			
Spatial Planning tools	High	En	Land Use; Socio-economic trends
CGE	High	Ec	SAM and SNA
Energy optimization models	High	Ec	Energy demand and supply, technologies
Nested models	High	Ec; S; En	Economic, Social and Environmental time series; Land use trends
Integrated models	High	Ec; S; En	Economic, Social and Environmental time series

3. Review of IGE Methodological Frameworks and Tools: Comparative Assessment

Methodologies

Name	Tool Characteristics			Tool Development and Use			Possible Impact		
	Sectoral or integrated	Data needs	Time Horizon	Ease of Cust. and Use	Effort for maintenance	Capacity Building Needs	Policy cycle step	Compl. with other tools	Target audience
Methodological Frameworks									
Economic Assessment									
Feasibility Studies	Sectoral	Medium (investments; costs; revenues; technology)	Snapshot	Medium	n.a.	Economics	2	Yes	Policy makers, private sector, economists and statisticians, environmental specialists
Impact Analysis	Sectoral	Medium (investments; GDP; revenues; profits; employment)	Snapshot or integrated	Medium	n.a.	Economics	2; 5		Policy makers, economists and statisticians, sociologists
Social Assessment									
PSIA	Integrated	High (income; poverty; equity; access)	Snapshot	High	n.a.	Social science; economics	2; 5	Yes	Policy makers; political scientists; sociologists
Environmental Assessment									
SEA	Sectoral	High (Land use; emissions; natural capital)	Continuous (short; medium; long)	Medium	n.a.	Environmental science	1; 2; 5	Yes	Policy makers, private sector, environmental specialists
EIA	Sectoral	High (Land use; emissions; natural capital)	Snapshot (short; medium; long)	Medium	n.a.	Environmental science	1; 2; 5	Yes	Private sector, environmental specialists
Governance Assessment									
Governance assessment	Integrated	Medium (accountability; transparency; law enforcement)	Snapshot	High	n.a.	Political and social sciences	2; 4	Yes	Political scientists, sociologists
Integrated Assessment									
DSS	Integrated	High (economic, social, environmental data)	Continuous (short; medium; long)	Medium	High	Computer science; decision analysis	1; 2; 5	Yes	Policy makers, private sector, environmental specialists



3. Review of IGE Methodological Frameworks and Tools: Comparative Assessment

Tools

Name	Tool Characteristics			Tool Development and Use			Possible Impact		
	Sectoral or integrated	Data needs	Time Horizon	Ease of Cust. and Use	Effort for maintenance	Capacity Building Needs	Policy cycle step	Compl. with other tools	Target audience
GE Tools									
Indicators and measurement frameworks									
Green Economy Indicators	Integrated	High (economic, social, environmental)	Continuous (short, medium, long)	High	Medium	Statistics	1, 2, 3	Yes	Policy makers, economists and statisticians
Input Production and Output indicators	Integrated	High (historical time series for state of the environment and impacts)	Continuous (short, medium, long)	High	Medium	Statistics	1, 3	Yes	Policy makers, environmental specialists
ECA's SD indicators	Integrated	High (historical time series; social, economic and environmental)	Continuous (short, medium, long)	Low	Medium	Statistics	2, 3	Yes	Policy makers, environmental specialists, political scientists, sociologists
SNA & SAM	Sectoral	High (national accounts and input-output tables)	Snapshot	Low	Medium	Economics; Statistics	2, 3	Yes	Economists and statisticians
SEEA	Integrated	High (natural resources stocks and flows)	Snapshot	Low	High	Environment; economics; statistics	1, 2, 3	Yes	Environmental specialists
Policy/Project Assessment tools									
ES valuation	Sectoral	High (natural resources stocks and flows)	Snapshot	Medium	High	Environment; economics	1, 2	Yes	Policy makers, economists and statisticians, environmental specialists
CBA	Integrated or Sectoral	Medium (costs; investments; economic returns; avoided costs)	Snapshot	High	n.a.	Economics	2	No	Policy makers, private sector, economists and statisticians
LCA	Sectoral	Medium (inputs and outputs of production)	Snapshot	High	Medium	Environment; technology	1, 2, 3	Yes	Private sector, economists and statisticians, environmental specialists

3.3. Preliminary assessment of suitability to Africa

- It is difficult to identify the most suitable tools for IGE assessments in Africa.
- The choice has to be based on the problem to be analyzed, the context to be assessed and the preparedness of the team carrying out the study.
- Ideally, methodologies and tools should be combined to carry out an integrated assessment by making use of their respective strengths.

3.3. Preliminary assessment of suitability to Africa

- All things considered, integrated models would seem to be the most adequate for IGE assessments in Africa.
- On the other hand, these are data intensive and require cross-sectoral stakeholder involvement and skills.
 - Combining several tools would also be an option, but careful attention should be put into ensuring the coherence of the methodologies and assumptions used.
 - Common elements of the analysis include the need for a multi stakeholder approach, and multi disciplinary knowledge.

3.3. Preliminary assessment of suitability to Africa

- Sectoral models can also contribute to IGE assessments, provided that their results are analyzed in the context of cross sectoral outcomes.
- At the project level, it important to consider:
 - both short and long term impacts
 - both the impact of the project (e.g. with an EIA) and the behavioral responses resulting from the completion of the project (e.g. with social assessments)
 - spatial impacts at the landscape level.

4. Assessment of statistical capacity

5. Ethiopia CRGE case study

5. Ethiopia CRGE case study

A survey was developed and shared:

- **Part A: On integrated assessment tools and methodologies.**
 - The questions were organized following the main steps of the integrated policymaking cycle.
 - Specific questions focused on the main capacity gaps that were encountered during the elaboration of the strategy.
- **Part B: On the Nature of Data/Indicators used.**
 - The questions aimed at assessing the type of data and information used in the policymaking process, and the barriers encountered in the data collection and analysis process.

5. Ethiopia CRGE case study

Agenda setting:

- All the respondents confirmed that a multi-stakeholder process was followed for the elaboration of the CRGE.

Policy formulation:

- All the respondents stated that scenario creation tools were used to analyze potential future developments in different sectors.

Policy assessment

- All the respondents affirmed that policy impacts were assessed using both quantitative and qualitative methods, and estimating the effect of interventions on key economic, social and environmental indicators (extrapolations and MCA).

5. Ethiopia CRGE case study

Decision-Making:

- All respondents affirmed that specific data and quantitative assessments were taken into account for the prioritization of activities in the CRGE.
- In particular, specific assessments were conducted by the Ethiopian Development Research Institute (EDRI) and the Ethiopian Institute of Agricultural Research (EIAR) one year prior to the establishment of the sectoral sub-technical committees.
- Key indicators analyzed included, among others: livestock population, agricultural land demand, inorganic fertilizer demand, fuel wood consumption and demand.
- The respondents observed that the scenario forecasting tool was useful for the preparation of the CRGE, as it brought new knowledge on climate, climate change, vulnerability assessments, GHG emissions and their accounting, and the scope of green growth.

5. Ethiopia CRGE case study

Implementation

- Two-third of the respondents affirmed that policy implementation steps were informed by the use of data and forecasting tools,
- 75% affirmed that a specific time schedule was decided for each activity.
- One of the respondents declared that most of the actors involved in the implementation phase of the CRGE had not participated in the formulation and assessment phases, and that CRGE units in the respective Line Ministries implement the activities separately.

5. Ethiopia CRGE case study

Policy Evaluation

- Two-third of the respondents affirmed that no specific tools or methods are currently being used to monitor the implementation of the CRGE
- The action plan was not modified due to a change in the initial conditions.
- On the other hand, all the respondents affirmed that specific tools/methodologies are used for identifying gaps in the CRGE and design alternative measures.

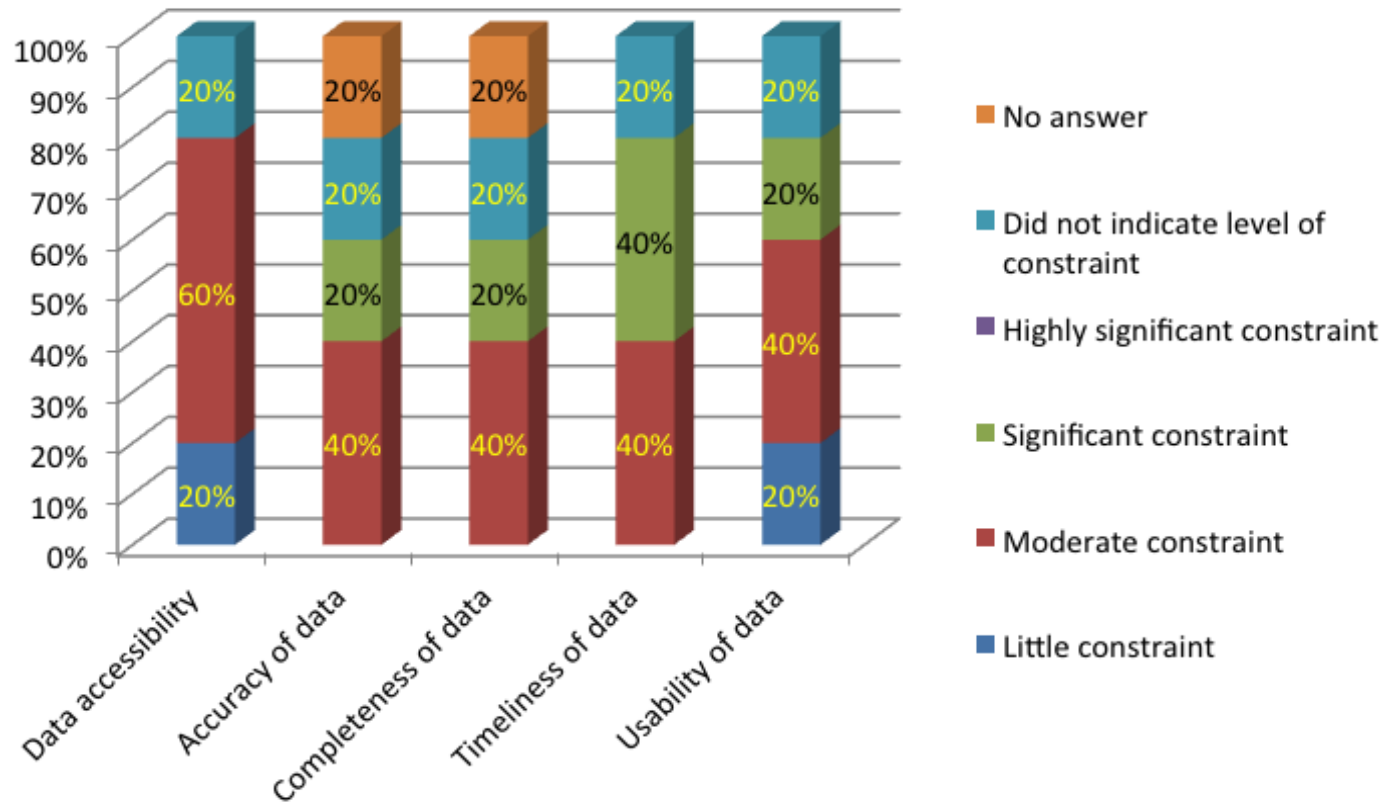
5. Ethiopia CRGE case study

Capacity

- All the respondents stated that no capacity building activities on integrated assessment tools and methodologies were conducted for decision-makers prior to the development of the CRGE.
- The main capacity gaps faced during the elaboration of the strategy include the lack of specialization in climate finance and economics, the lack of statistical capacity, as well as the limited knowledge of innovative technologies and assessment methods.
- The respondents stressed that capacity gaps were partially addressed through the hiring of international and local experts.

5. Ethiopia CRGE case study

Main data gaps and capacity constraints identified by the respondents.



6. Way forward: In-Depth Analysis and Capacity Building

- Integrated Green Economy (IGE) assessments, or parts of it, are already being conducted in African countries with aim to maximize the benefits of green economy policies and strategies across economic, social and environmental sectors.
- However, additional capacity should be created on the cross-sectoral and systemic analysis of green economy policy outcomes.

6. Way forward: capacity

- Knowledge should be created on systems analysis, with aim to form professional figures whose expertise cuts across domains (e.g. sectors) and actors (e.g. private, public, civil society).
- The analytical capacity of policymakers should be strengthened to improve the understanding of both short and long term impacts of IGE policies, and to favor the contextualization of analytical outcomes to the specific reality of each African country.

6. Way forward: tools

- The improvement of the knowledge and skills of the decision makers has to go hand in hand with the development of technical skills.
- The combination of qualitative and quantitative methods is key to gain relevant insights on the actual context and the expected impacts of green economy strategies.

6. Way forward: tools

Indicators:

- (I) UNEP and ECA's as well as SEEA indicators, together with monitoring progress on the SDGs, which are essential to provide the basis for the analysis of the social and environmental dimension of sustainable development with other tools for project and policy assessment.

6. Way forward: tools

Scenario creation tools

- (2) Causal Loop Diagrams (CLDs) to better understand how several sectors, and the indicators within them are interconnected with each others. Developing CLDs is essential as it is a first step to better understanding the systemic nature of our society, economy and environment.

6. Way forward: tools

Scenario forecasting tools

- (3) Quantitative models, to project and assess the cross sectoral outcomes of desired interventions:
 - *Spatial planning tools* (e.g. InVEST).
 - *CGE and sectoral optimization models* (e.g. MARKAL, LEAP).
 - *Integrated models* (e.g. Green Economy Model – GEM).

Thank you!

**For more information you
can find me at:**

andrea.bassi@ke-srl.com

