

Potential impacts of implementation of response measures, General Introduction and negotiation update

East Africa region awareness creation workshop to maximize the positive and minimize the negative impacts of implementation of Climate Change response measures

30 September-2 October 2019



Vintura Silva
Team Lead, UNFCCC RCC Grenada
UNFCCC

Outline

- ❑ Context of response measures/ climate policies
 - Objectives of the Convention and Paris Agreement
 - Commitments by Parties
- ❑ Forms of Climate Policies
 - Mitigation
 - Adaptation
 - Means of Implementation
- ❑ Impacts of implementation of response measures
- ❑ Assessment of impacts of implementation of response measures



Introduction to response measures/ climate policies/climate actions



Context: Convention objectives

- ❑ The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, **stabilization of greenhouse gas concentrations** in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
- ❑ Such a level should be achieved within a time-frame sufficient to allow **ecosystems to adapt naturally** to climate change, to ensure that food production is not threatened and to **enable economic development to proceed in a sustainable manner**.



Context: Paris Agreement objectives

- ❑ Enhanced implementation of the Convention by strengthening the global response to the threat of climate change, **in the context of sustainable development** and efforts to eradicate poverty, including by:
 - **Holding the increase in the global average temperature to well below 2°C** above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
 - **Increasing the ability to adapt** to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
 - **Making finance flows consistent** with a pathway towards low greenhouse gas emissions and climate-resilient development.



Commitments under the Convention relevant to climate policies

- ❑ Article 4.1(b): Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures
 - to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and
 - measures to facilitate adequate adaptation to climate change

- ❑ Article 4.1(f): Take climate change **considerations into account in their relevant social, economic and environmental policies and actions**, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change



Commitments under the Convention relevant to climate policies

- ❑ Article 4.3: The developed country Parties shall **provide new and additional financial resources** to meet the agreed full costs incurred by developing country Parties in complying with their obligations
- ❑ Article 4.5: support for technology transfer
- ❑ Article 4.8: addressing the impacts of implementation of response measures

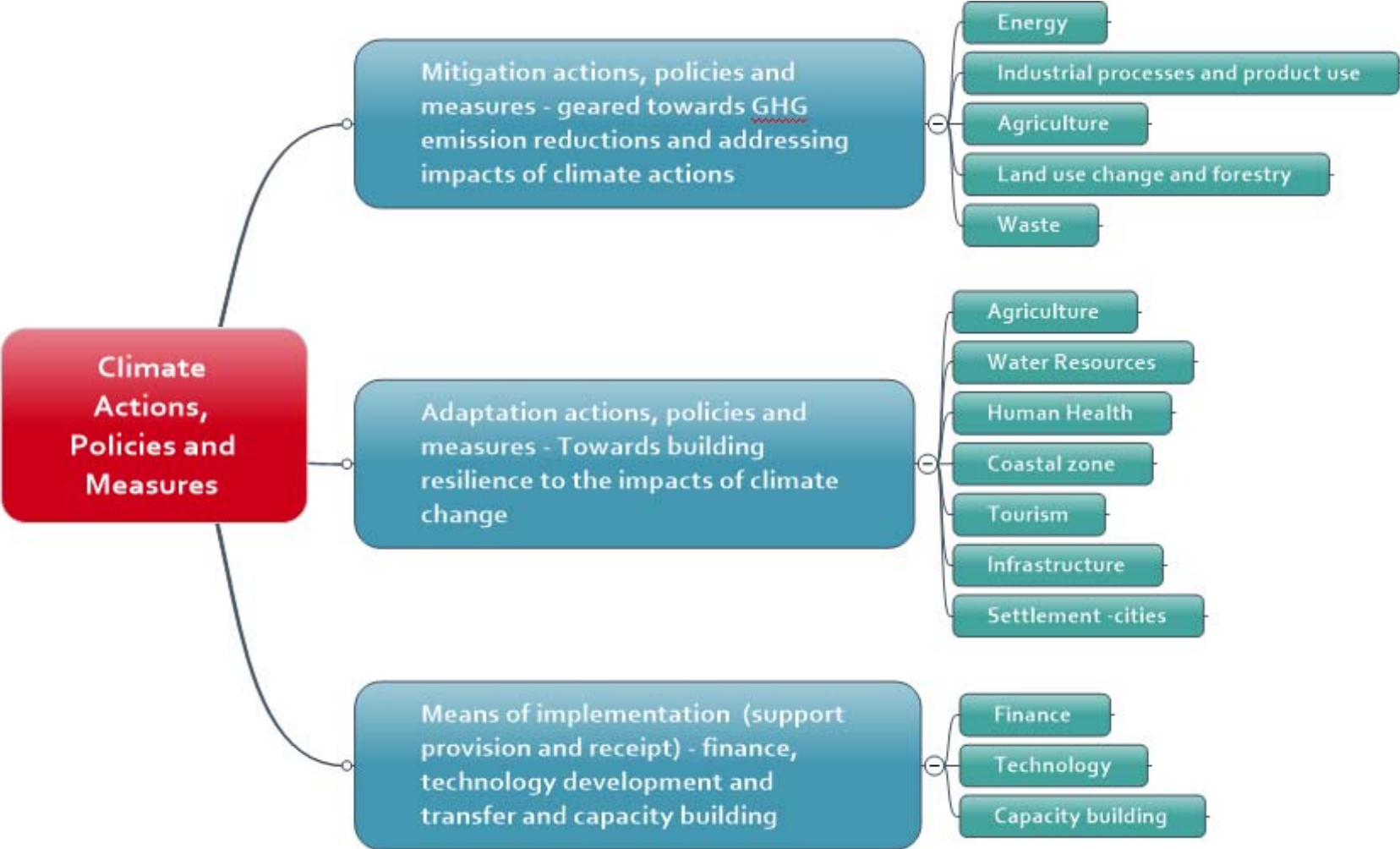


Commitments under Paris Agreement

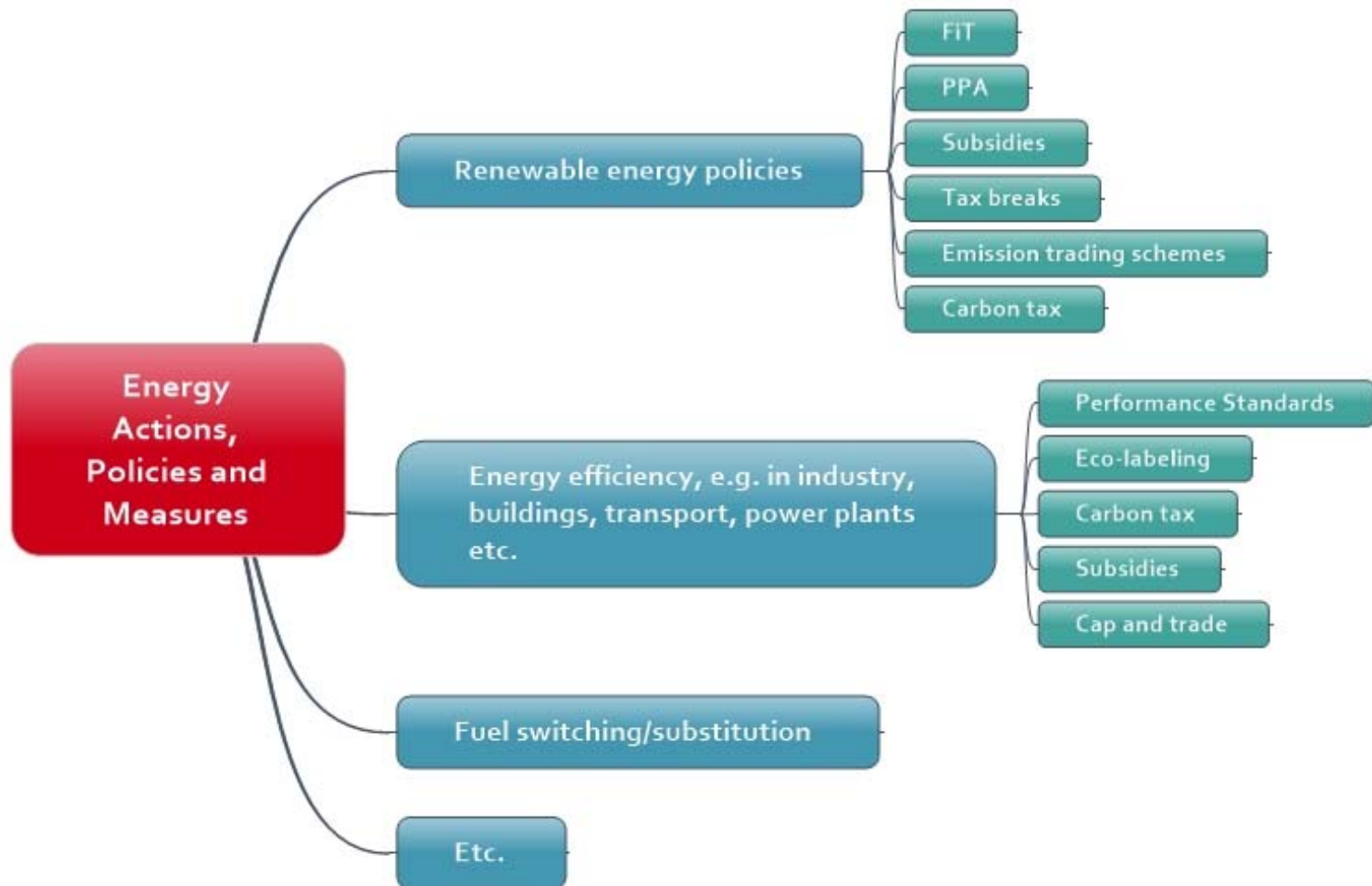
- ❑ As **nationally determined contributions** to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in **Articles 4, 7, 9, 10, 11 and 13** with the view to achieving the purpose of this Agreement.
- ❑ The efforts of all Parties will represent a **progression over time**, while recognizing the **need to support developing country Parties** for the effective implementation of this Agreement.



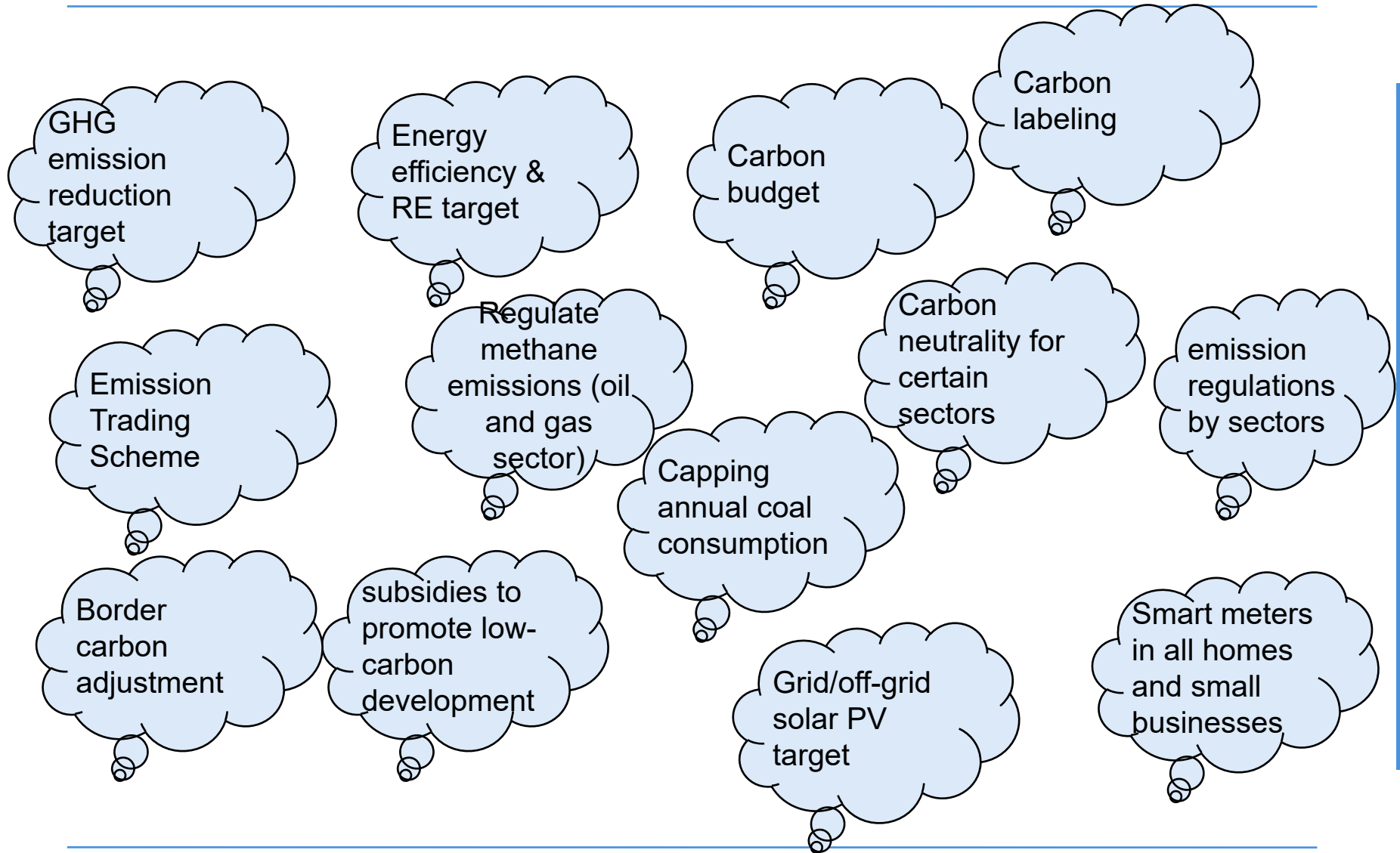
Forms of Policies



Climate policies in energy sector: examples



Climate mitigation policies and measures



Impacts of implementation of response measures

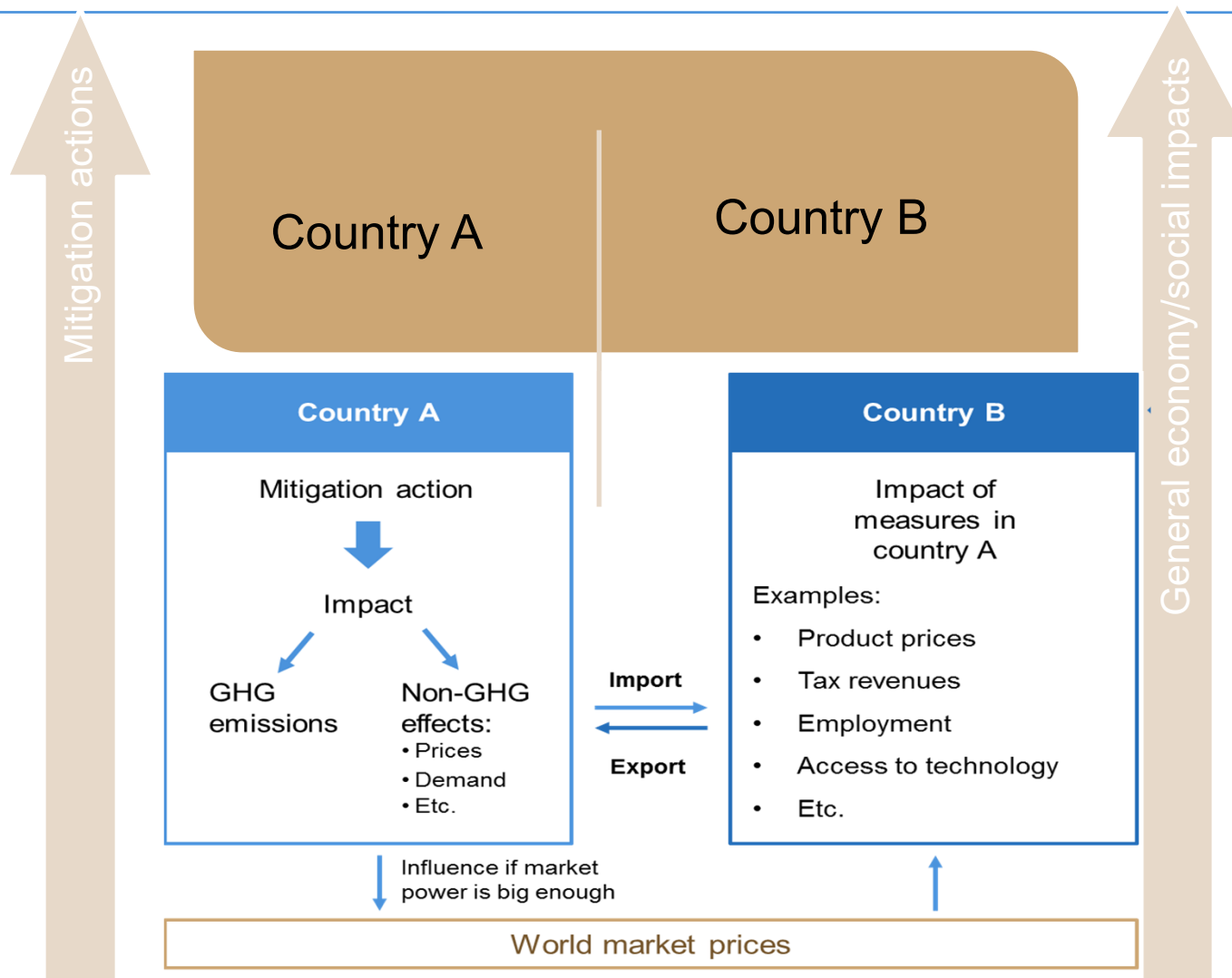


Impacts of Response Measures: What it is!

- ❑ Impacts of implementation of response measures is understood under the Convention as the effects arising from the implementation of **mitigation actions** taken by Parties under the Convention and now the Paris Agreement

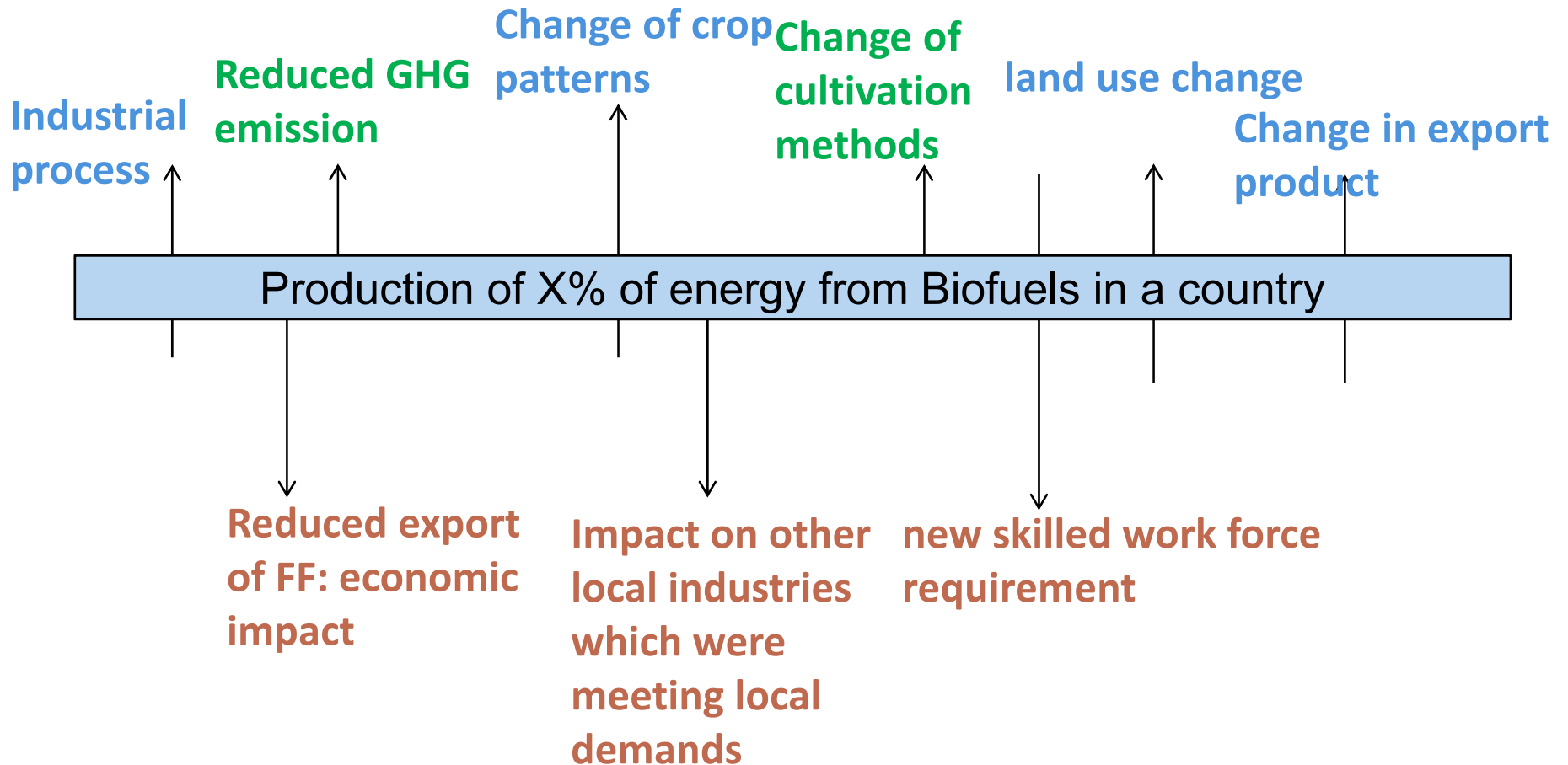


Cross border impacts of response measures



Impact of implementation of RM

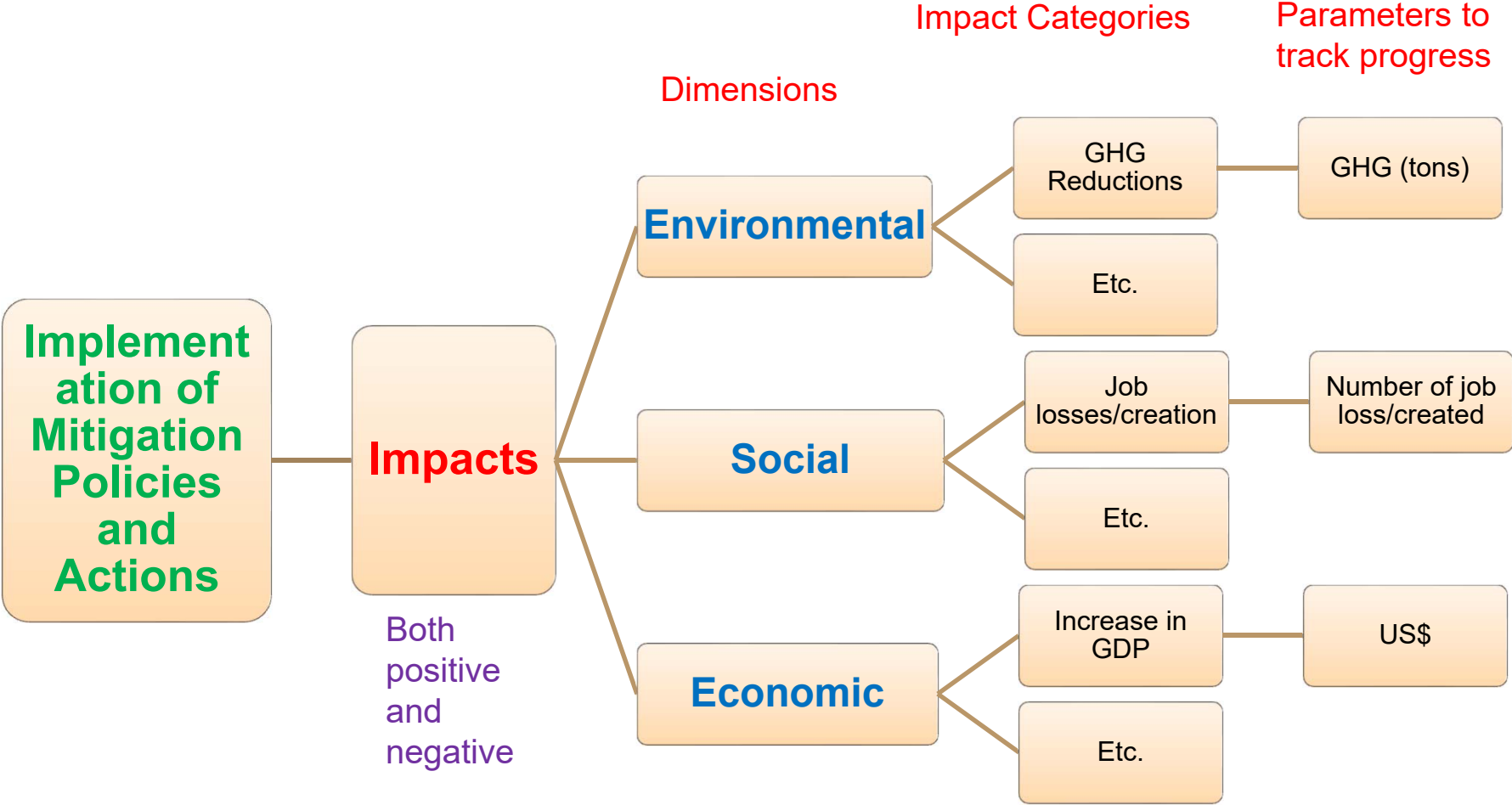
Positive Impacts



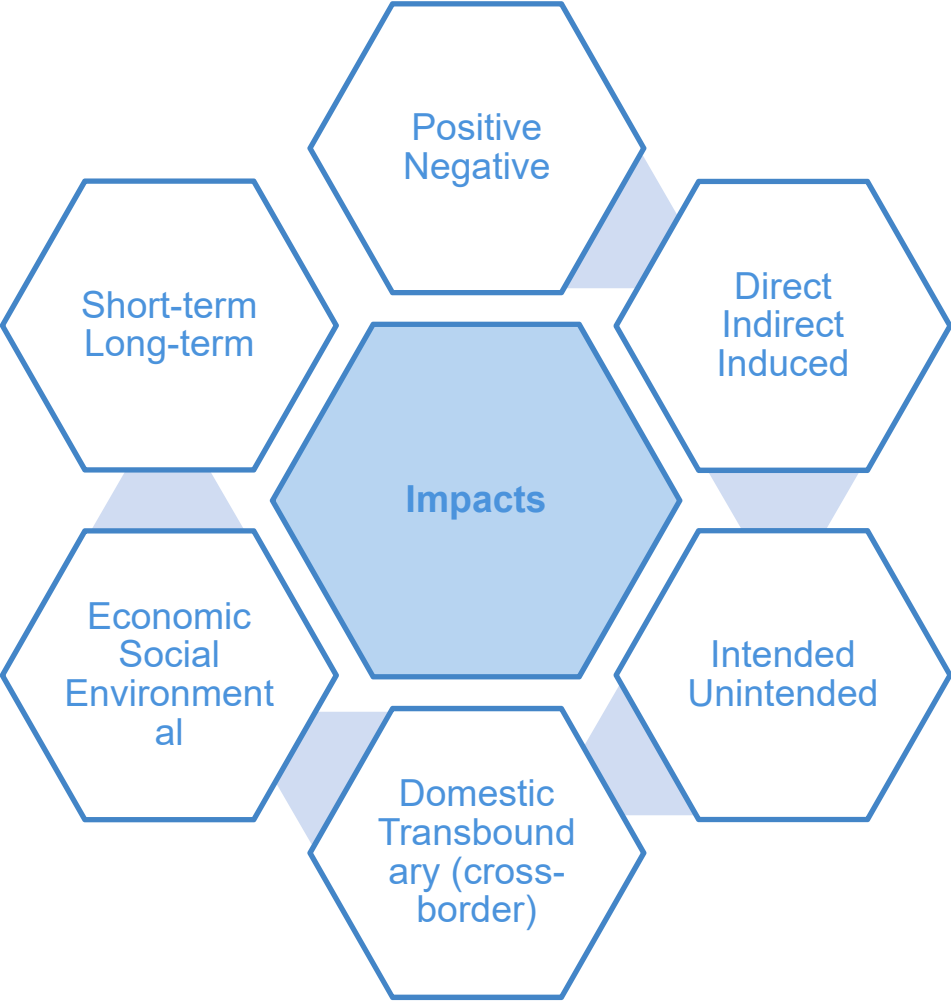
Negative Impacts



Manifestation of impacts of mitigation policies and actions



Summary of types of impacts of response measures



Identify

Assess

Report

Address/manage



Countries most impacted?

- Commodity dependent countries : dependent on export of natural resources
 - There are about 88 commodity dependent countries
 - 81 out of 88 commodity dependent countries have submitted their NDCs.
- Commodity dependent country has strong dependence on policy implementing country e.g. in 2017
 - 47% of total exports revenue of Angola is from oil export to China
 - 56% of Algeria's export revenue is from Oil and natural gas to EU
 - 32% of Bolivian republic of Venezuela renew is from oil and gas export to US



Sectors impacted

- Conventional oil, gas and coal fuels;
- Energy-intensive trade-exposed goods (aluminium, iron and steel, cement, chemicals, and pulp and paper);
- Tourism;
- Agriculture.



Mitigation policies and impacts

Selected response measures and their impacts

<i>Policy</i>	<i>Key Impacts</i>
Domestic carbon taxes and cap and trade schemes	Loss of market share for foreign exports
Subsidies for renewable energy technology producers	Loss of market share for foreign competitors (renewable energy technology and fossil fuels)
Standards and labelling requirements	Loss of market share for producing firms
International carbon taxes and levies	On aviation: loss of tourism revenue for airline destinations and loss of market share for air-freighted goods On maritime transport: reduced trade flows



Assessment of Impacts of implementation of response measures



Assessment of impacts of response measures

✓ Approaches

- **Qualitative:** produces a description of the potential effects of policies and measures. It provides an estimate of the direction of change (positive, negative) and its relative size (small, medium, large);
- **Quantitative:** Models provide quantitative assessment results with a higher degree of accuracy; usually require a large data set and expertise and are associated with high cost;
 - CGE-based, E3ME;
- Other quantitative tools: input-output analysis, econometric analysis, cost-benefit analysis

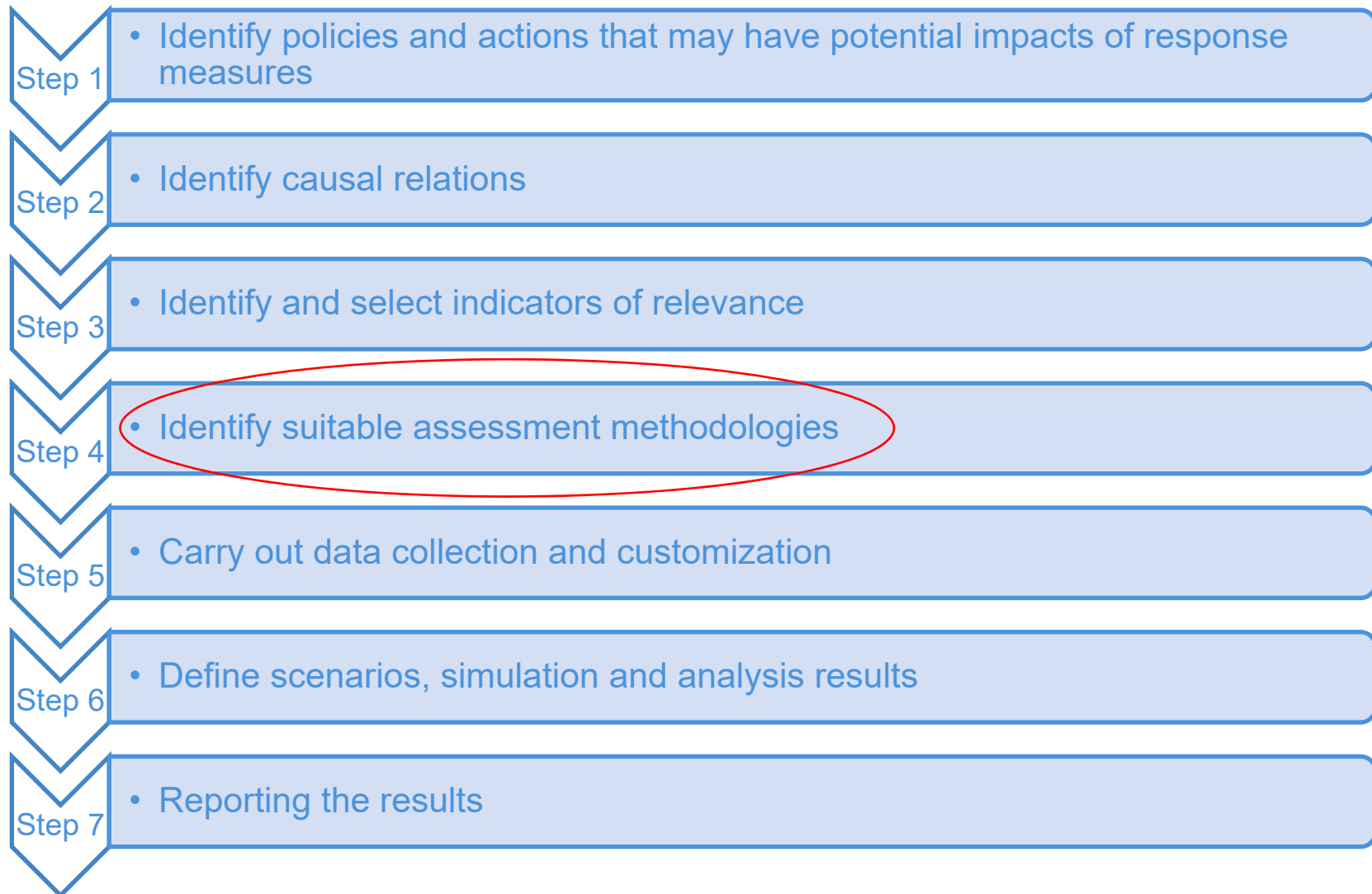
✓ Timing of assessment

- **Ex-ante:** assessment undertaken before formulation and adoption of PaMs, for evidence-based decision making, and involvement of stakeholders
- **Ex-post :** undertaken after the implementation of PaMs, to check and evaluate its real impacts.

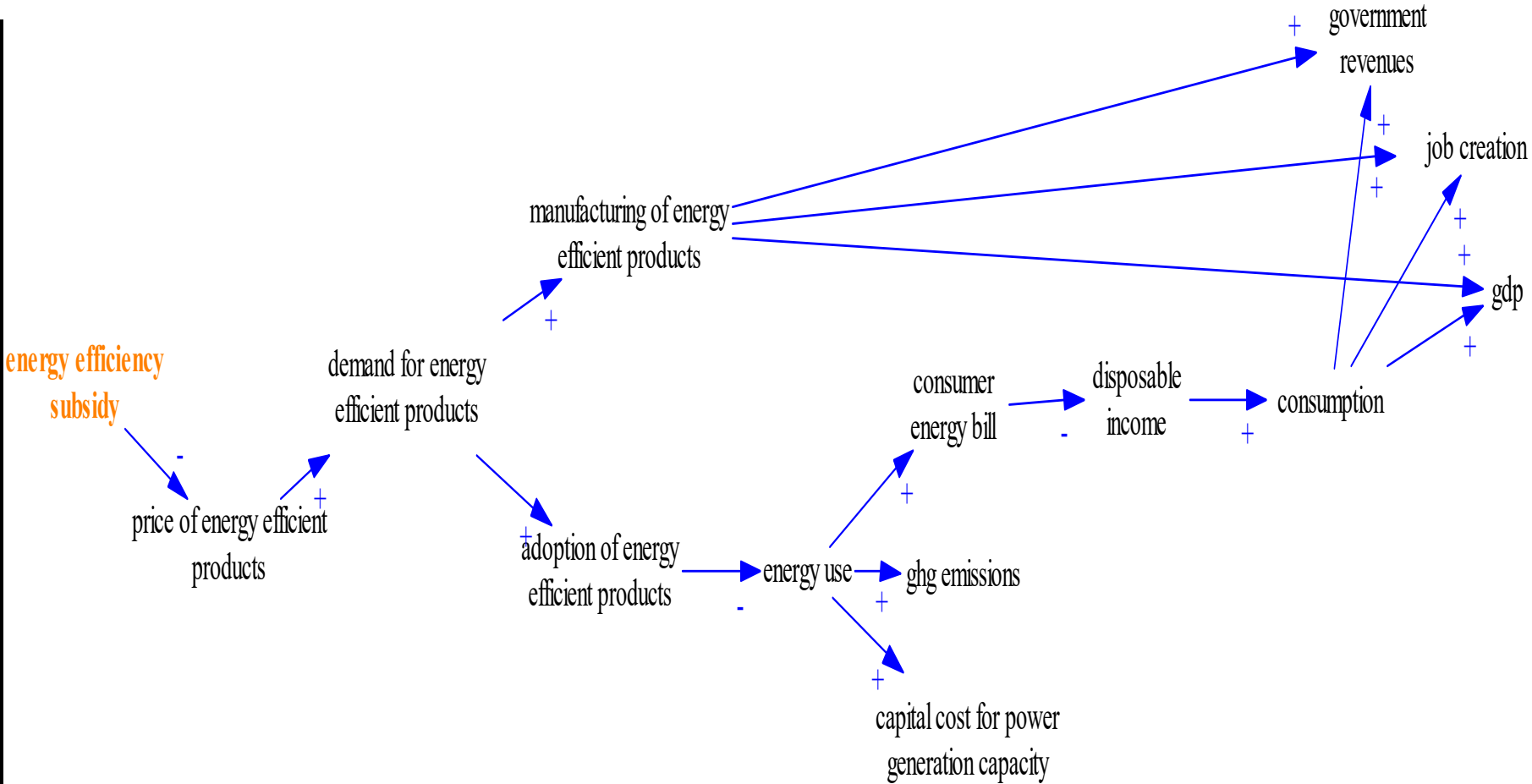
✓ Step-wise methodologies



Overview of steps of assessment of impacts



Causal chain for impacts of increasing energy efficiency subsidy

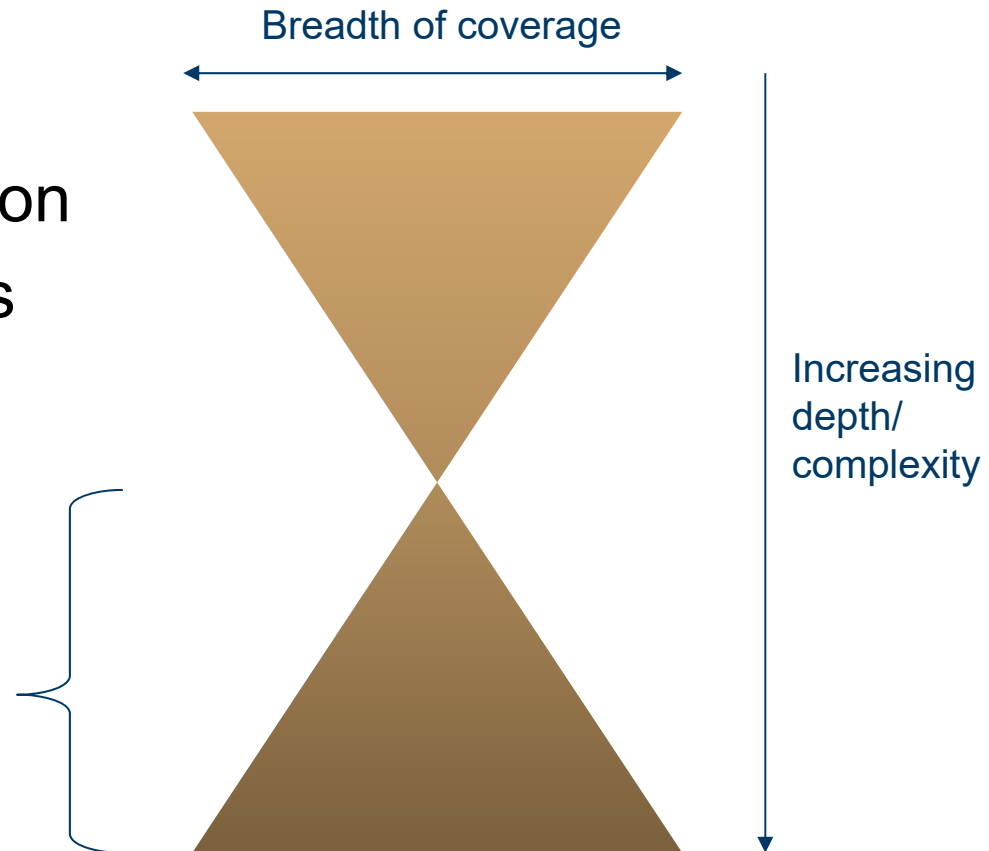


Types of Analytical tool

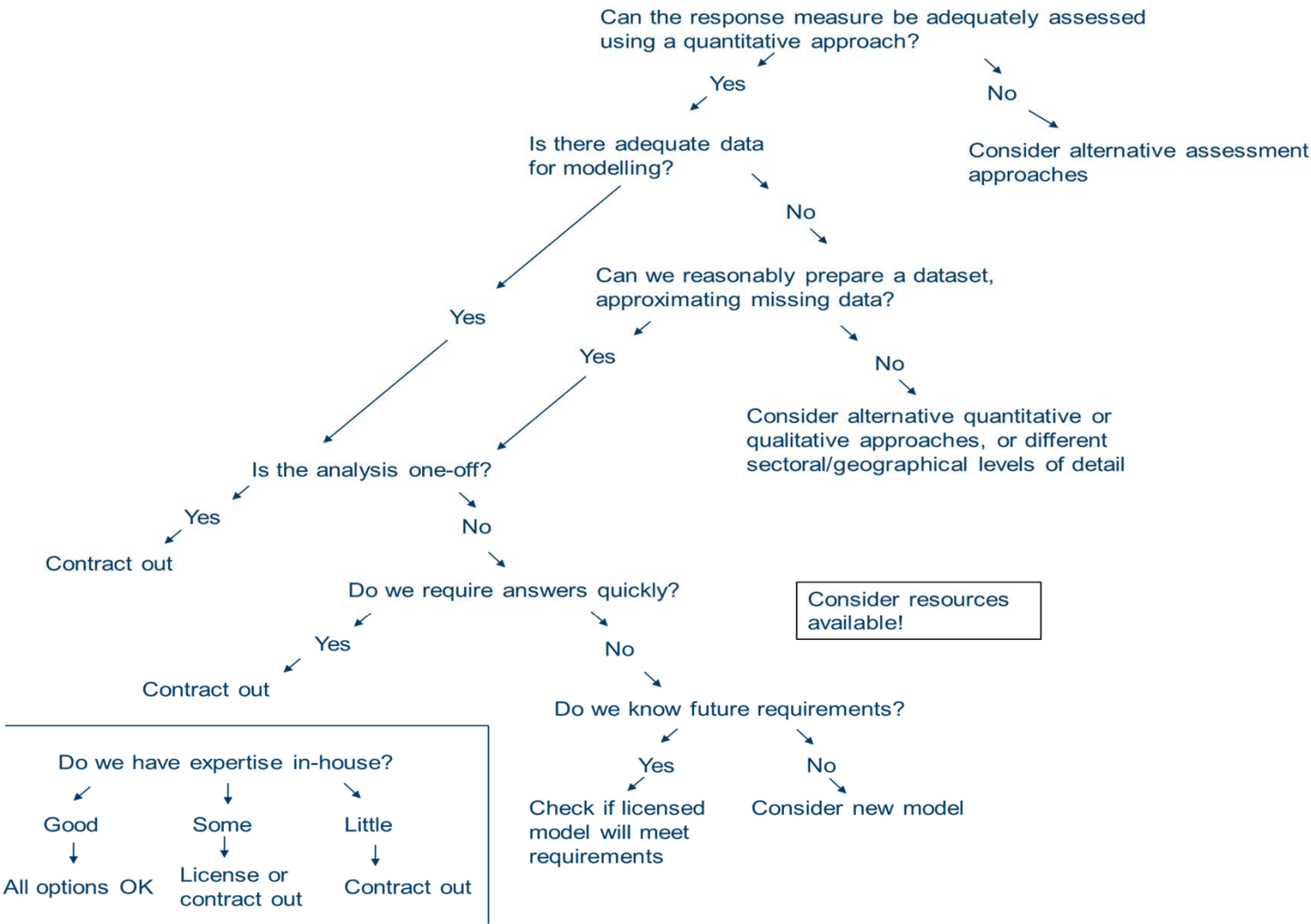
Qualitative Approach: simple analysis

Quantitative Approach: basic to complex

- Simple analysis
- Econometric estimation
- Systems of equations
- Input-output analysis
- Partial modelling
- General modelling



Decision Tree for selection of assessment approach



Challenges and Opportunities

Challenges

- Lack of experience in developing countries
- *Lack of case studies, specifically cross border impacts assessments*
- Lack of suitable methodological and analytical tools

Opportunities

- *Forum established under the Convention shall serve the Paris Agreement (paragraph 33, decision 1/CP21)*
- *Katowice Committee of Experts (established by decision 7/CMA 1)*
- *Work programme areas of the forum*



Thank you !

