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Applying the logic models: Climate stability

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- Finnish climate stability public good case study
- Italian climate stability public good case study

Objectives and structure of the logic models

- The logic models assist:
  - evaluators to find a sound evaluation design for the task at hand
  - managing authorities to assess the feasibility of evaluation plans and/or the quality of evaluation results

- Step-by-step structure and flow enable understanding:
  - **POSSIBILITIES: what evaluation questions the available data/indicators/methods can provide answers to at their best** and/or
  - **REQUIREMENTS: what data/indicators/methods are required to answer certain evaluation questions**

- We illuminate the logic model approach with the help of two climate stability case studies (Finnish and Italian)

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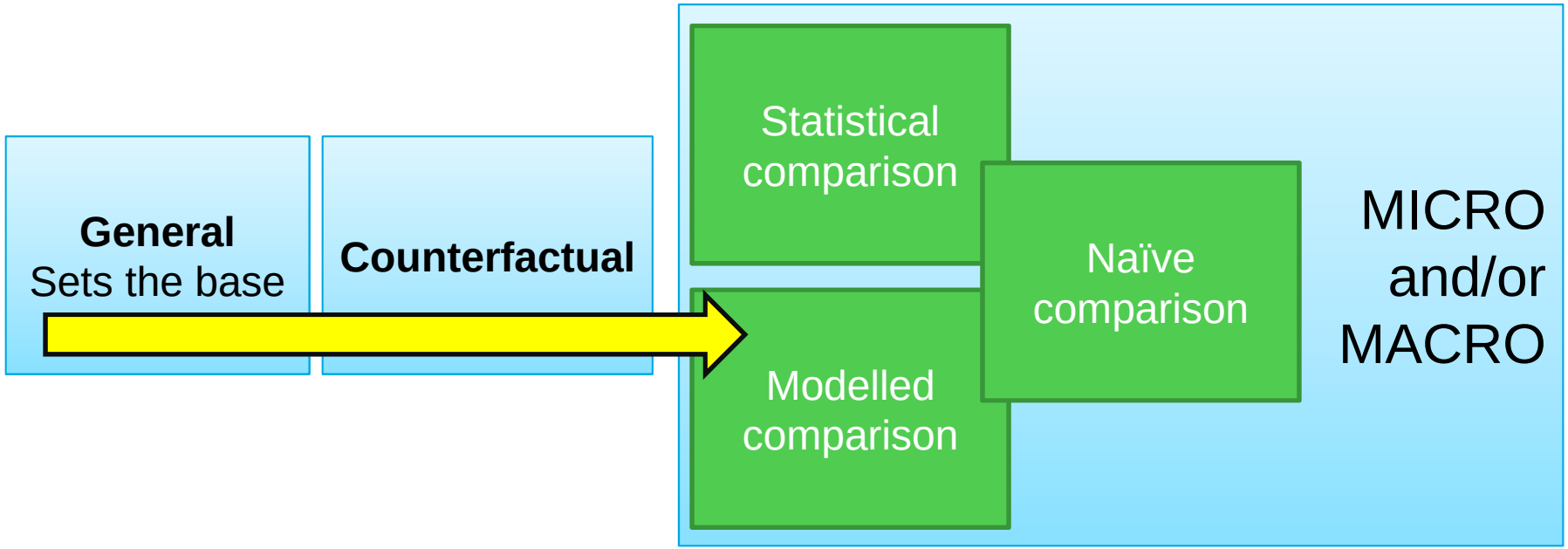
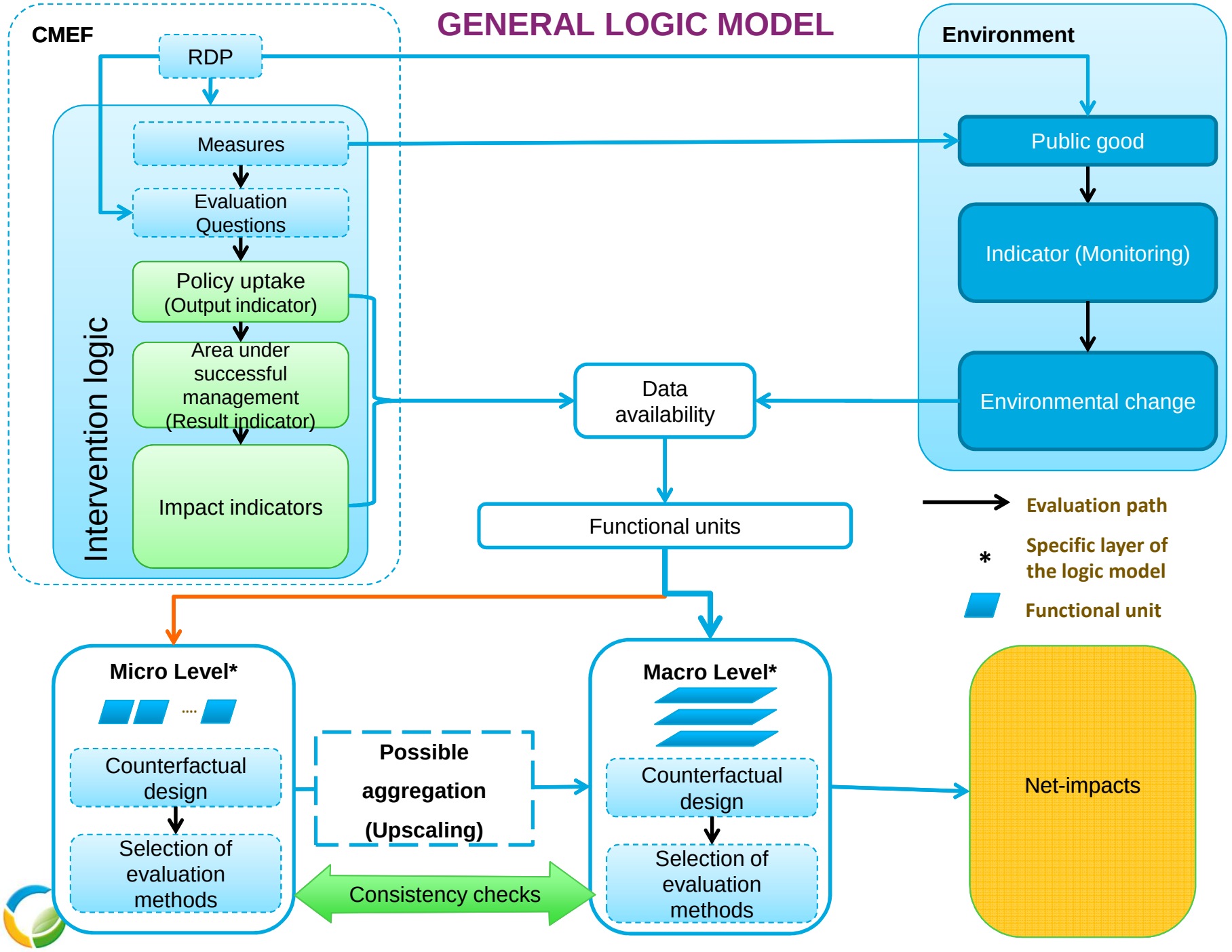
Simplified logic model flow




GENERAL LOGIC MODEL
CMEF
RDP
Measures
Evaluation Questions
Policy uptake (Output indicator)
Area under successful management (Result indicator)
Impact indicators
Intervention logic
Environment
Public good
Indicator (Monitoring)
Environmental change
Data availability
Functional units
Evaluation path
* Specific layer of the logic model
Functional unit
Micro Level*
Counterfactual design
Selection of evaluation methods
Possible aggregation (Upscaling)
Consistency checks
Macro Level*
Counterfactual design
Selection of evaluation methods
Net-impacts

Finnish climate stability public good case study

- Purpose of the Finnish climate stability case study is to evaluate how agri-environment payments and natural handicap payments have affected GHG emissions from Finnish agriculture in the programme period 2007-2013
- Dynamic multi-REgional sector Model for Finnish Agriculture
  - Simulates regional agricultural production and markets
    - consumer demand (incl. foreign trade)
    - production restrictions, taxes and subsidies
    - EU price effects on Finnish production
    - 20 years in development
- Sectoral modelling can encompass main evaluation challenges
  - **Substitution effect:** production choices can change on an aggregate level (plants, crops, animals)
  - **Multiplier effect:** modeling the agricultural sector needs to take multiplier effects into account (in its many forms: e.g. AEP's can induce unit-efficiency but also more production → aggregate pollution rises)
  - **Deadweight effect:** lock-ins due to earlier decisions and time lags for production shifts can be modeled on the regional scale.

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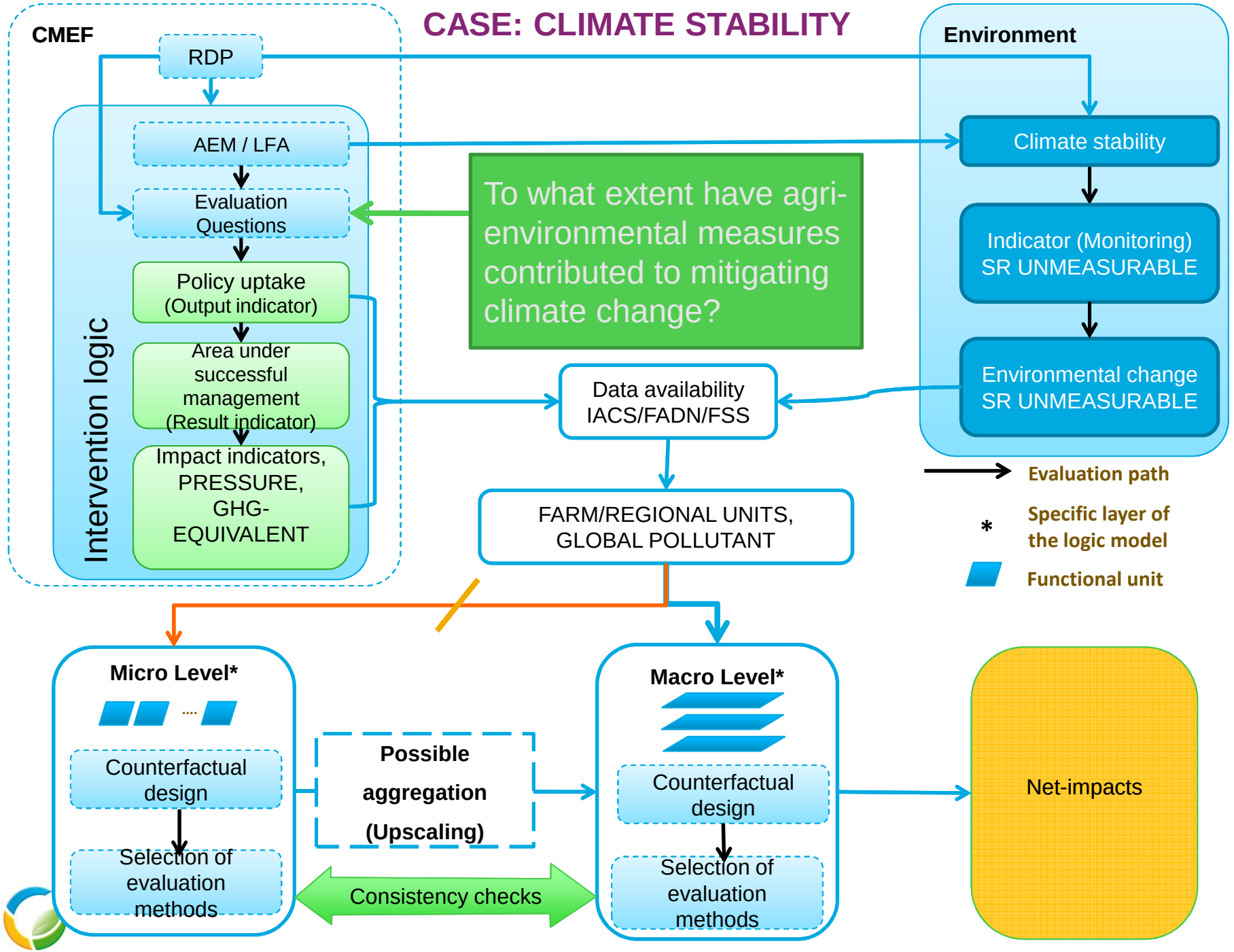
CASE: CLIMATE STABILITY
CMEF
RDP
AEM / LFA
Evaluation Questions
Policy uptake (Output indicator)
Area under successful management (Result indicator)
Impact indicators, PRESSURE, GHG-EQUIVALENT
Intervention logic
To what extent have agri-environmental measures contributed to mitigating climate change?
Environment
Climate stability
Indicator (Monitoring) SR UNMEASURABLE
Environmental change SR UNMEASURABLE
Data availability IACS/FADN/FSS
FARM/REGIONAL UNITS, GLOBAL POLLUTANT
Evaluation path
Specific layer of the logic model
Functional unit
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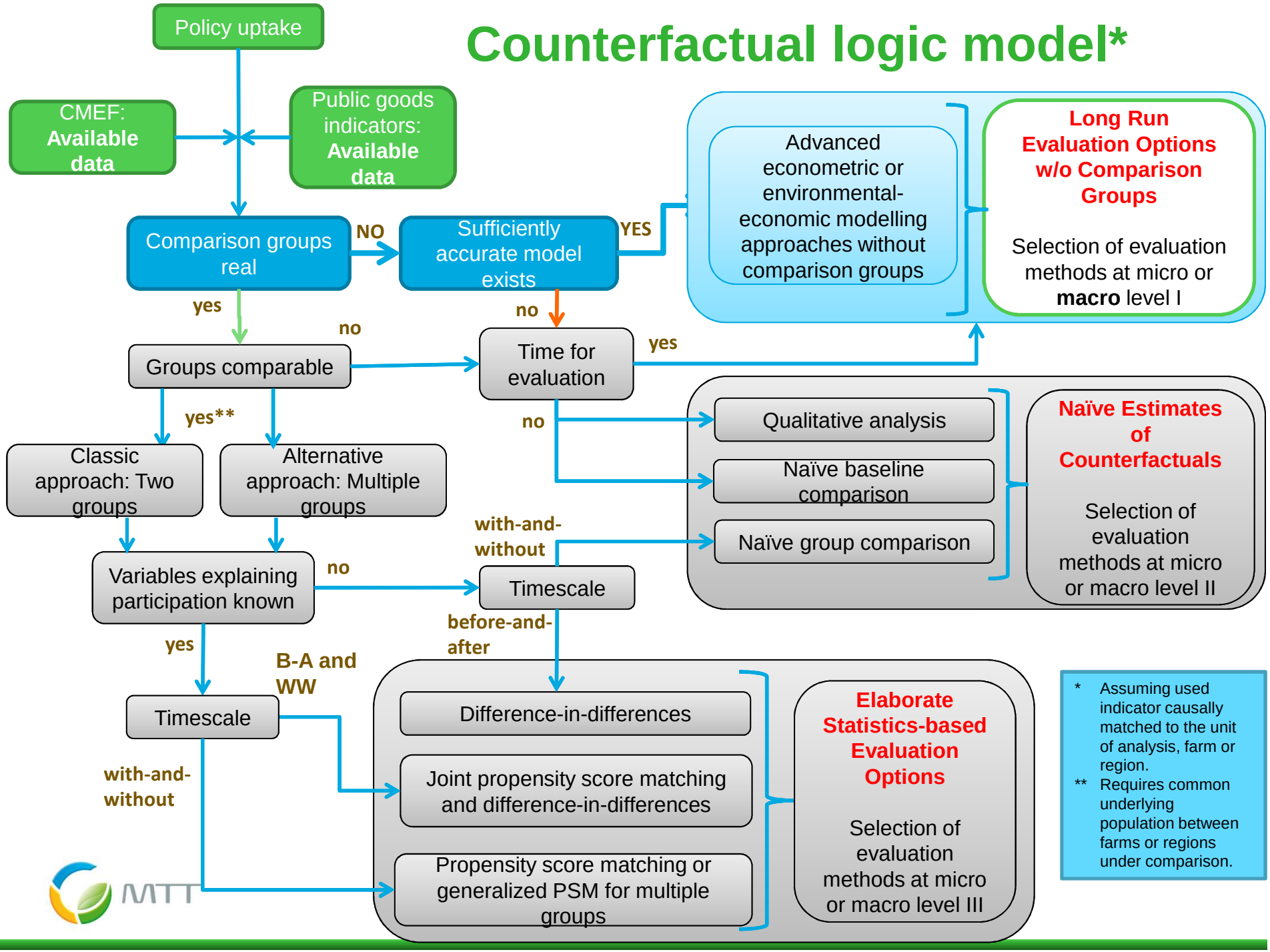
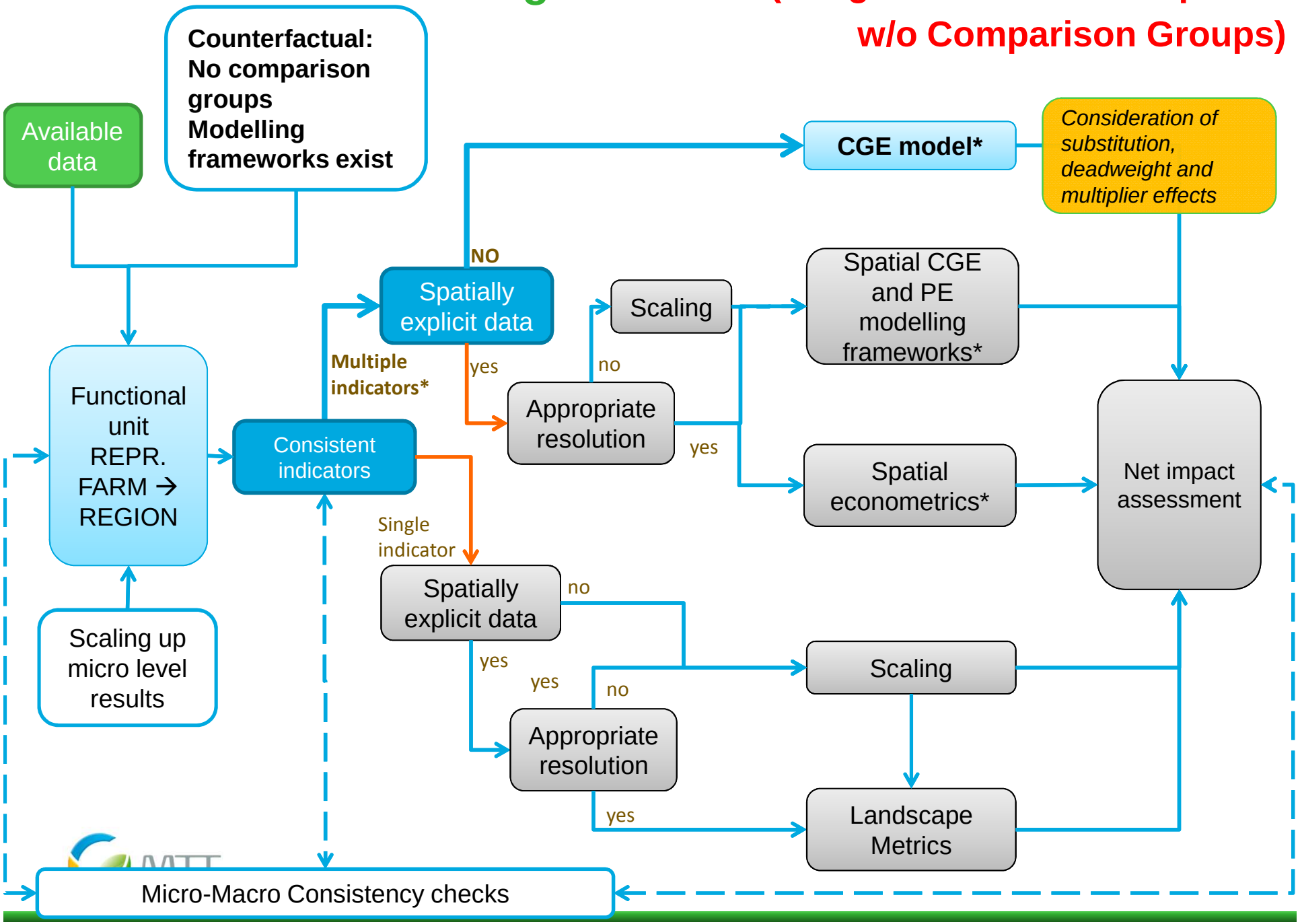
Counterfactual logic model*



Counterfactual must be decided (baseline scenario):

Agri-environment and natural handicap payments given as direct farm payment without prerequisities on production

Macro level logic model I (Long Run Evaluation Options w/o Comparison Groups)



Italian climate stability public good case study

- Background work: to evaluate carbon emissions (CO2) in different agricultural contexts (type of farming, geographic distribution)
- Background work: to evaluate differences among farming methods in terms of CO2 emission considering the uptake of RDP measures on one side and the conventional productive methods as counterfactual
- Objective 1: to test the suitability and robustness of the Carbon Footprint method to evaluate net impacts of RDP measures (micro level)
- Objective 2: to infer regional result (macro level) to evaluate RDP environmental impact in terms of carbon emissions

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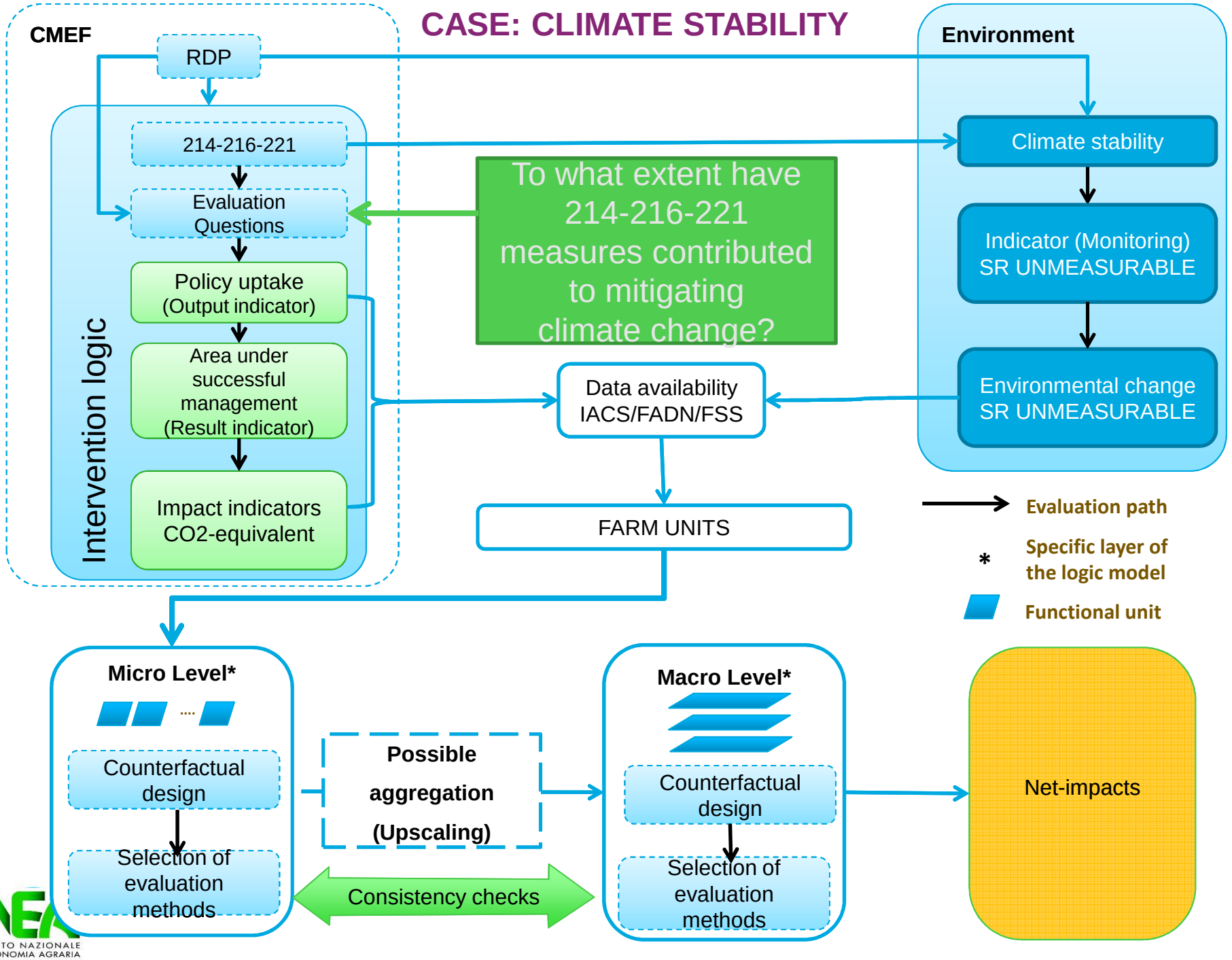
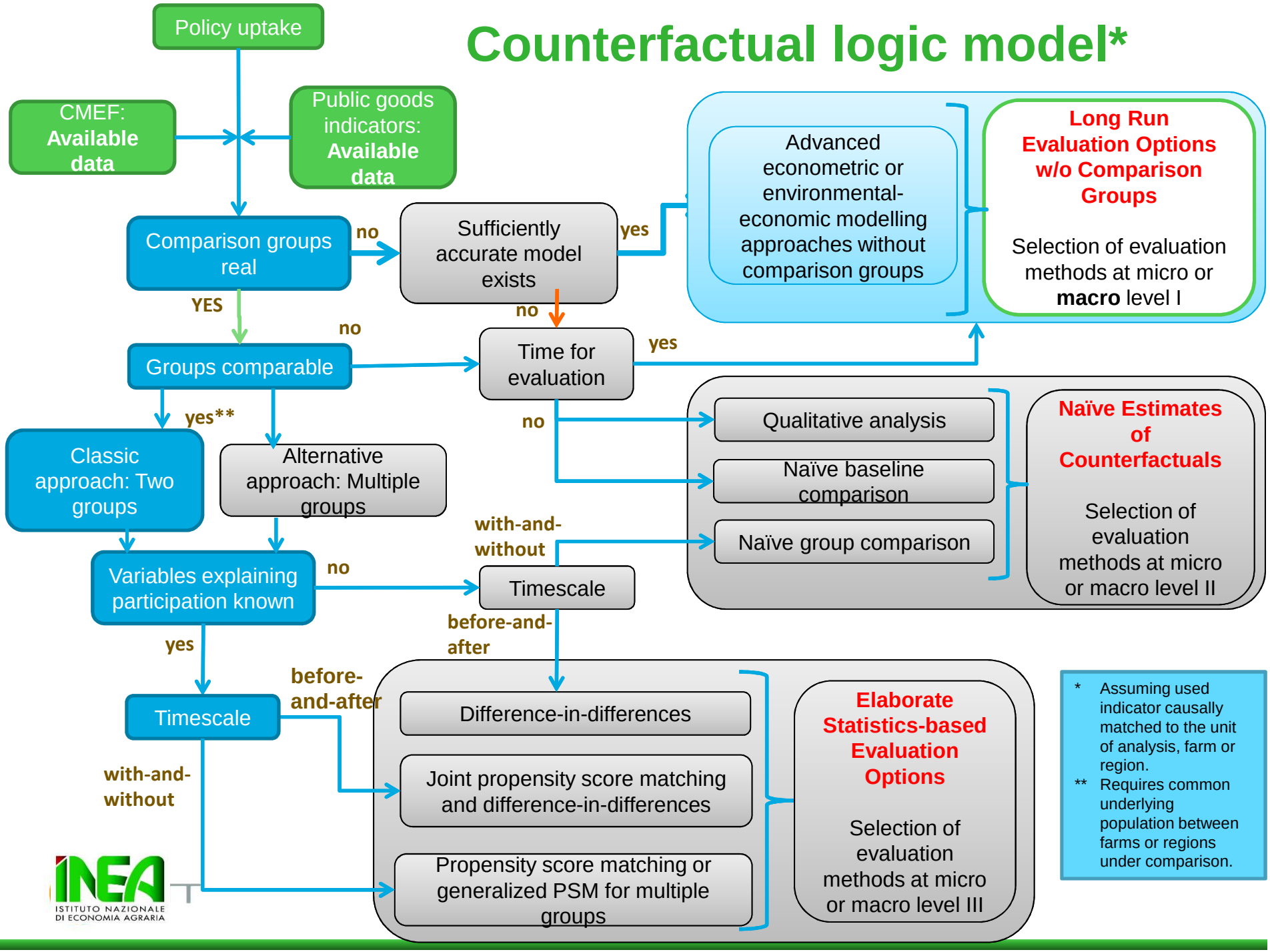
CASE: CLIMATE STABILITY

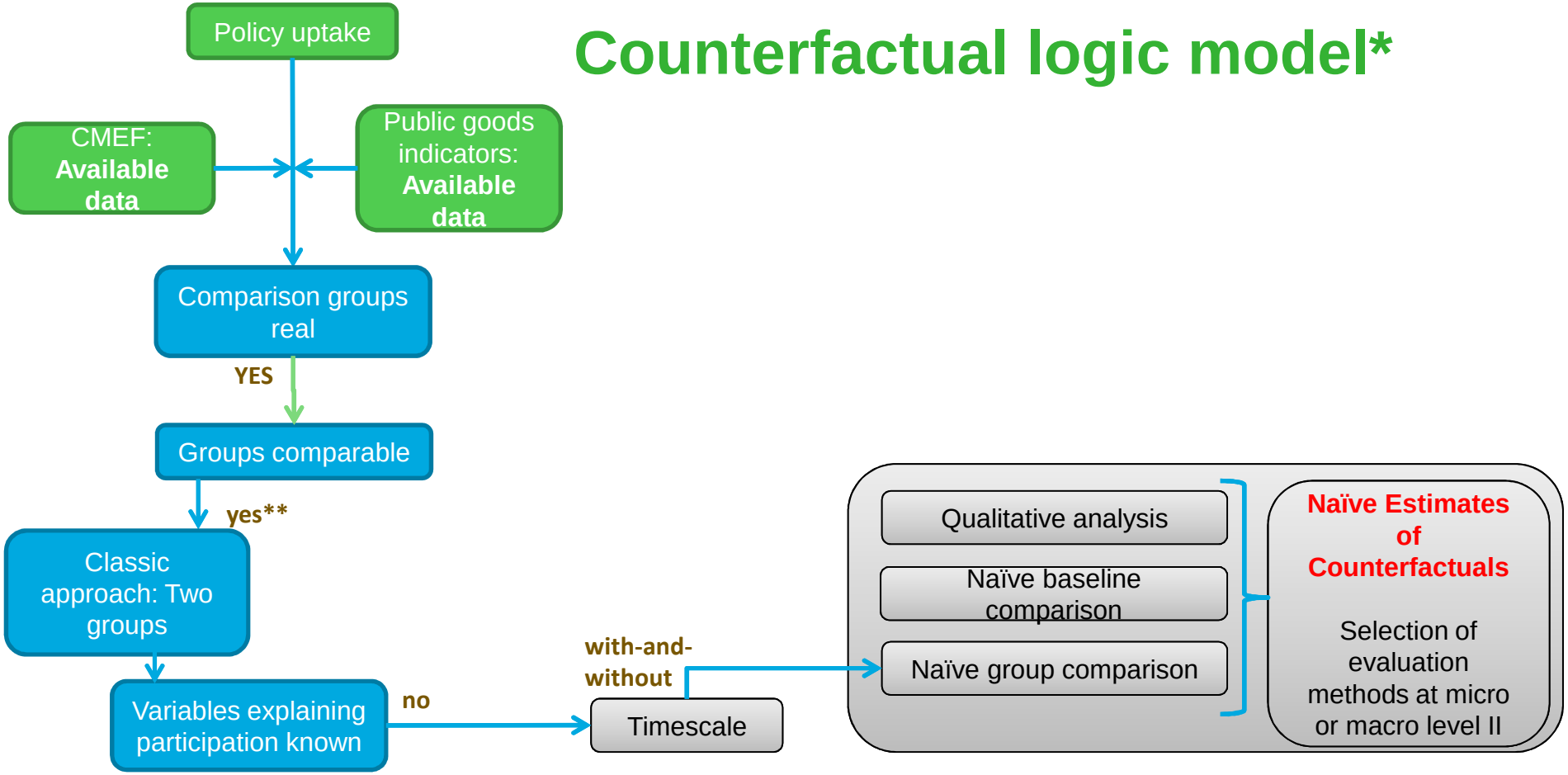


ISTITUTO NAZIONALE DI ECONOMIA AGRARIA

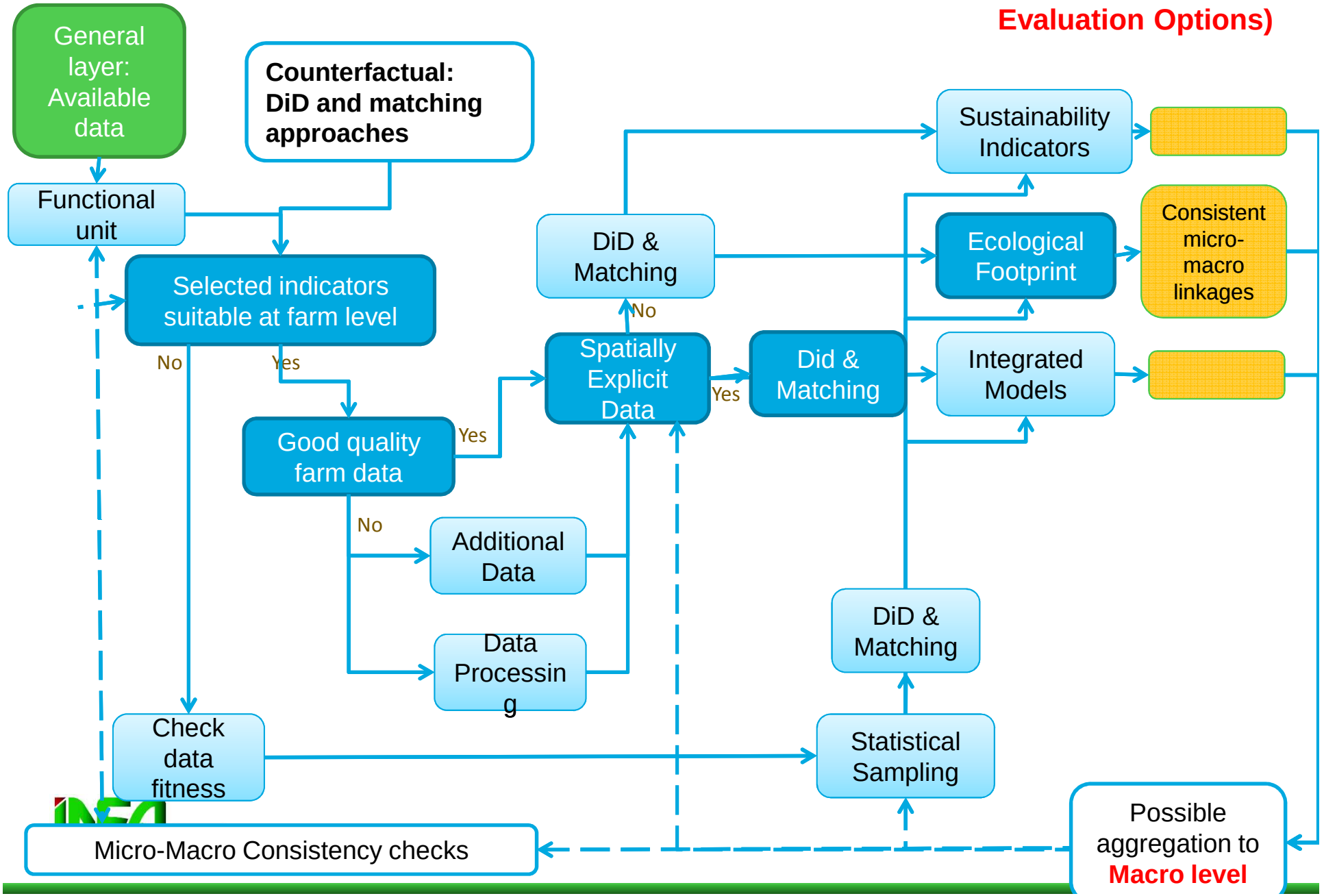
Counterfactual logic model*



Counterfactual logic model*



Micro level logic model III (Elaborate Statistics-based Evaluation Options)



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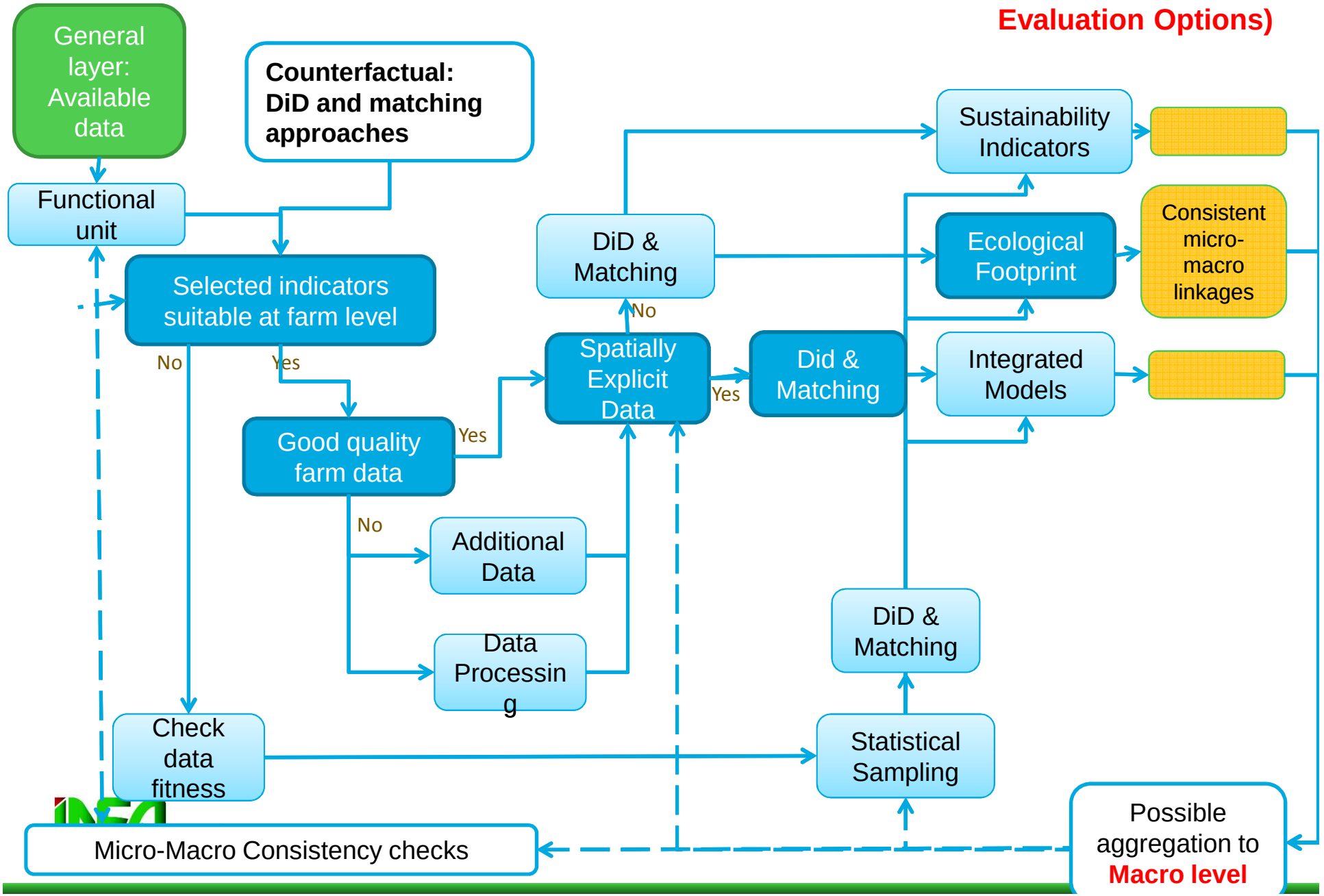
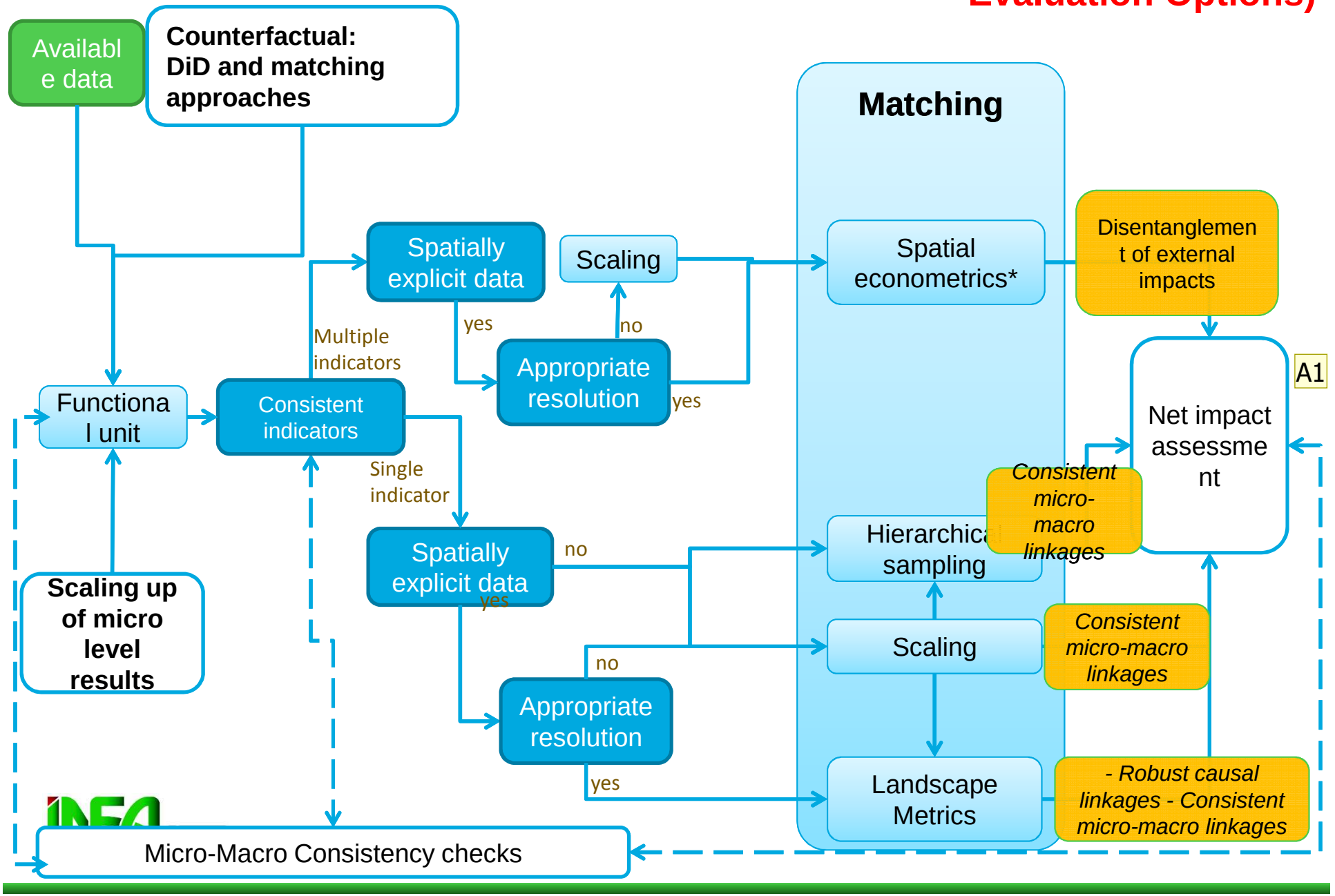


Macro level logic model III (Elaborate Statistics-based Evaluation Options)



A1 not certain this is the best terminology to describe this phase ....
Autor; 21.04.2014

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DEVELOPMENT AND APPLICATION OF NEW METHODOLOGICAL FRAMEWORKS FOR THE EVALUATION OF ENVIRONMENTAL IMPACTS OF RURAL DEVELOPMENT PROGRAMMES IN THE EU

Summary of feedback on logic models from consultations with national stakeholders

Kęstutis Navickas, – Baltic Environmental Forum

2-3 July 2014, Budapest

Feedback on logic models

- The logic models are complex but can provide a useful tool.
- Explanation guidelines is needed to facilitate understanding, illustrated examples would be helpful too.
- Expected to follow a treasury guidelines for counterfactuals which are simpler and in the form of a hierarchy.
- Be sure that general logic model will link with the RDP objectives and targets.

Feedback on logic models

- In the Micro and Macro logic models it would be helpful to include thresholds for data quality and an illustration with an example.
- Consider who would users of these models and adopt them according to they needs and competence.
- Including the process related questions (why and how) would helpful.
- Further applications of the logic models to real examples would be helpful