ENVIEVAL

Grant Agreement Number 312071

Institute of Farm Economics

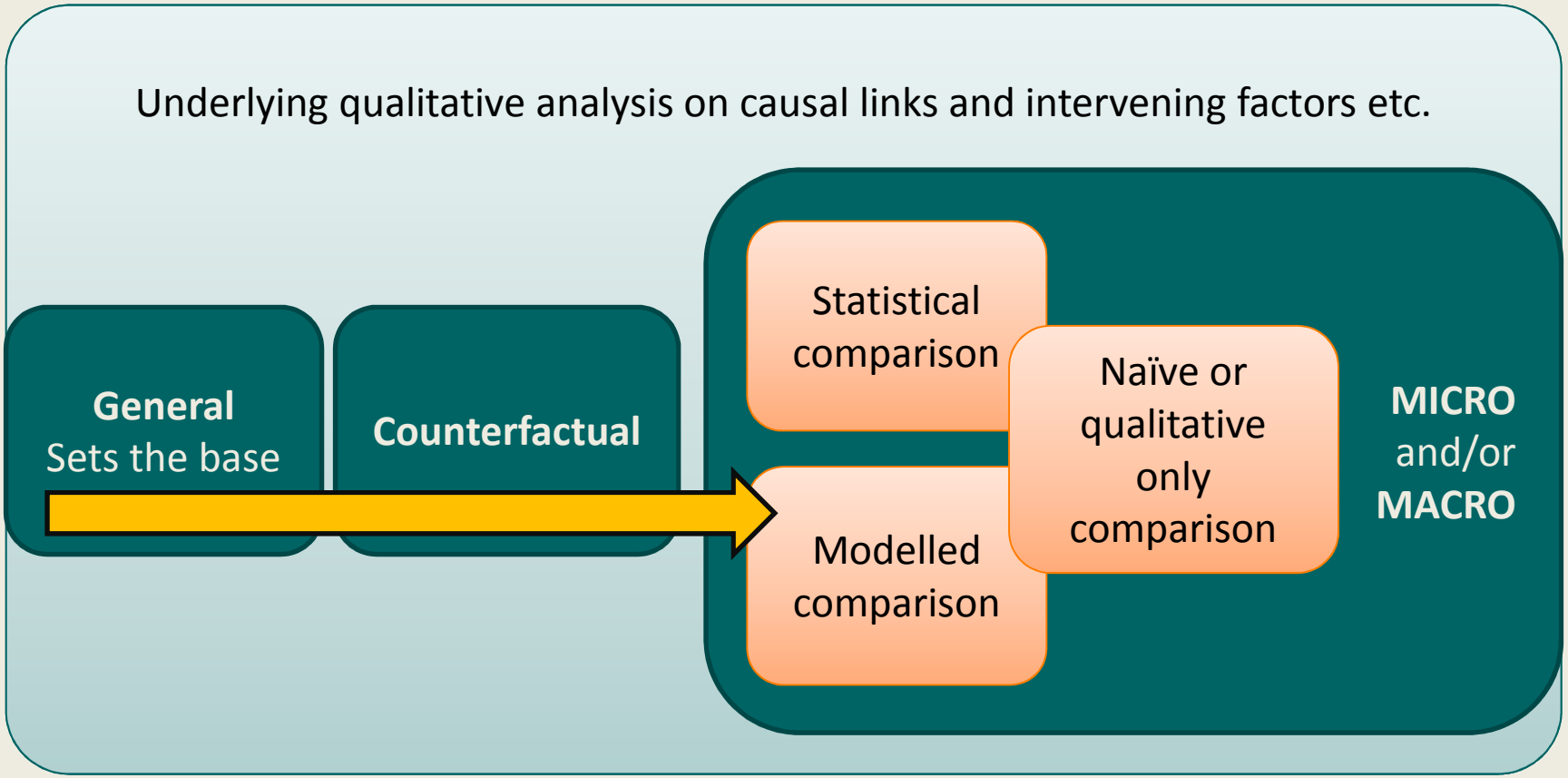
DEVELOPMENT AND APPLICATION OF NEW METHODOLOGICAL FRAMEWORKS FOR THE EVALUATION OF ENVIRONMENTAL IMPACTS OF RURAL DEVELOPMENT PROGRAMMES IN THE EU

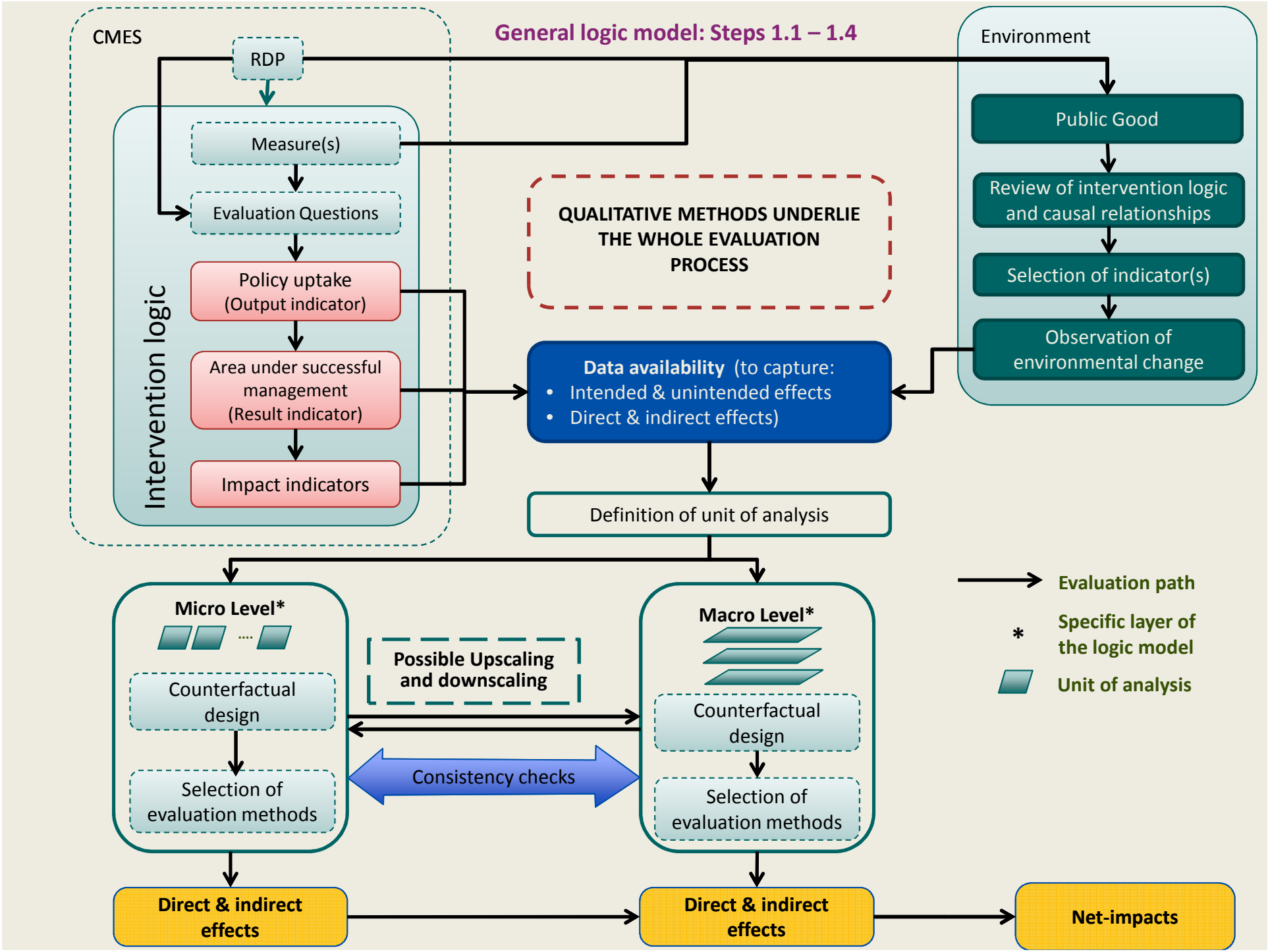
LOGIC MODEL FOR A FRAMEWORK FOR COUNTERFACTUAL-BASED EVALUATIONS OF ENVIRONMENTAL IMPACTS OF RDPS AT MICRO AND MACRO LEVELS

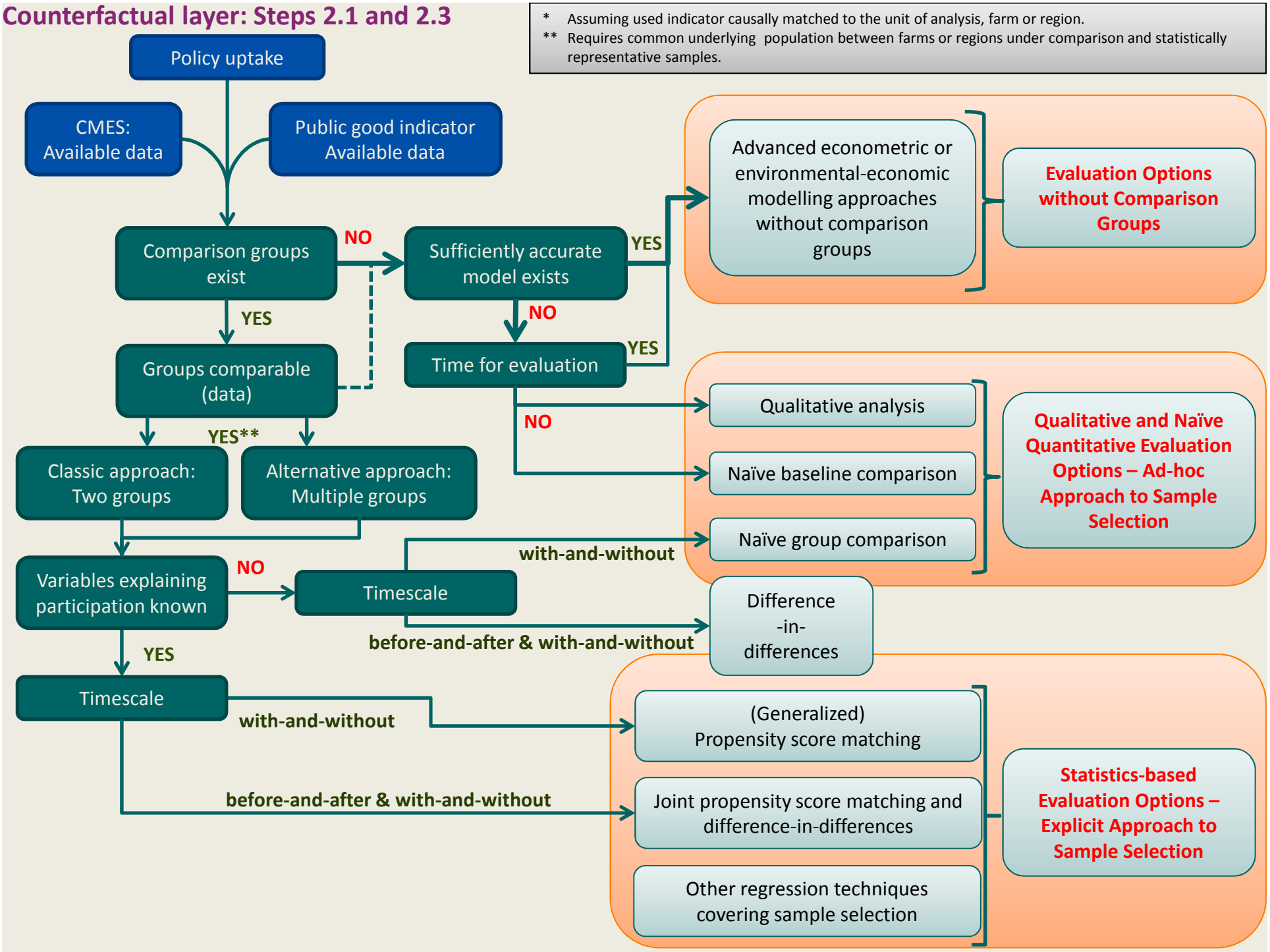
ENVIEVAL PROJECT TEAM

DRAFT, 31/10/2015

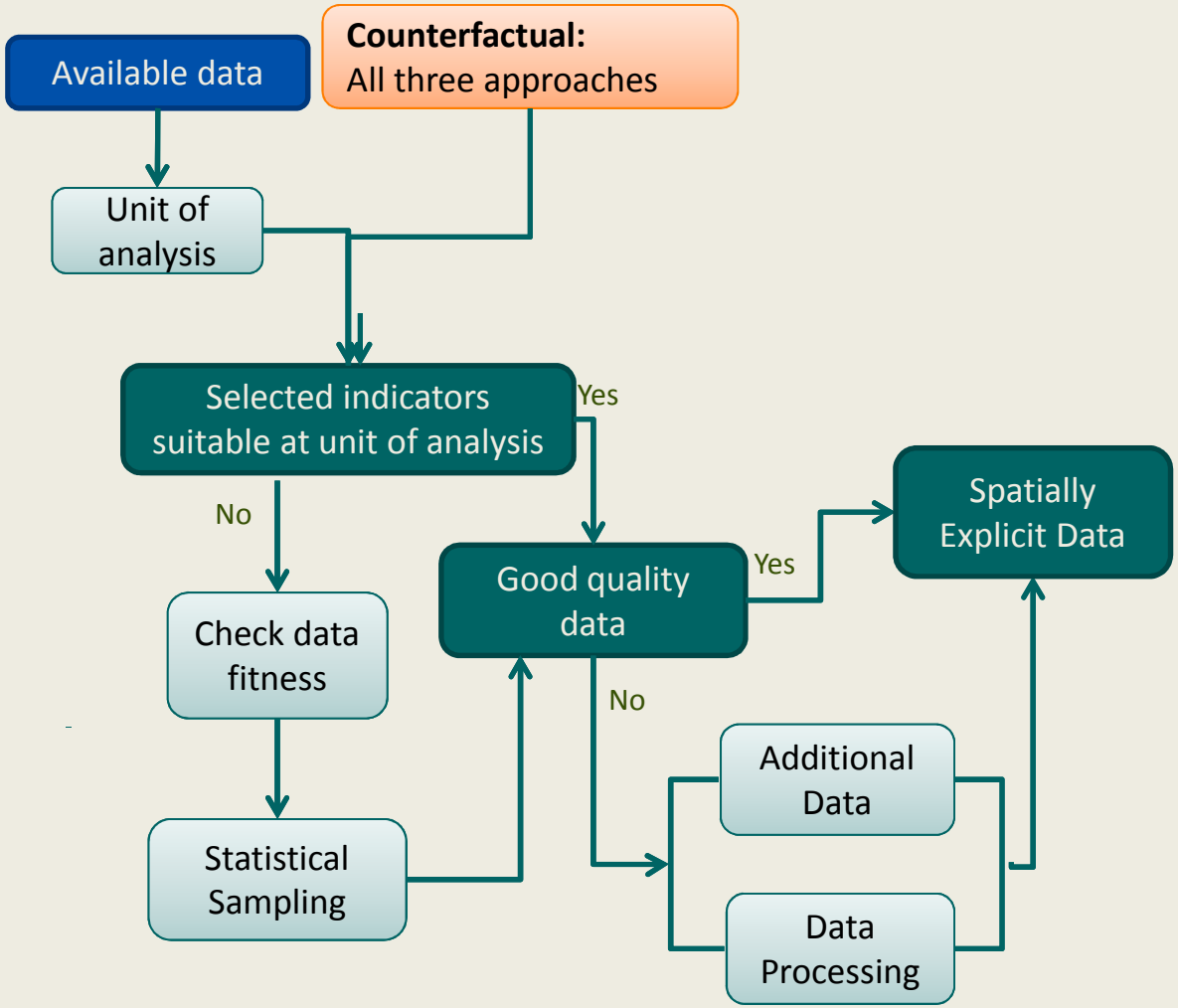
Simplified logic model flow of evaluation



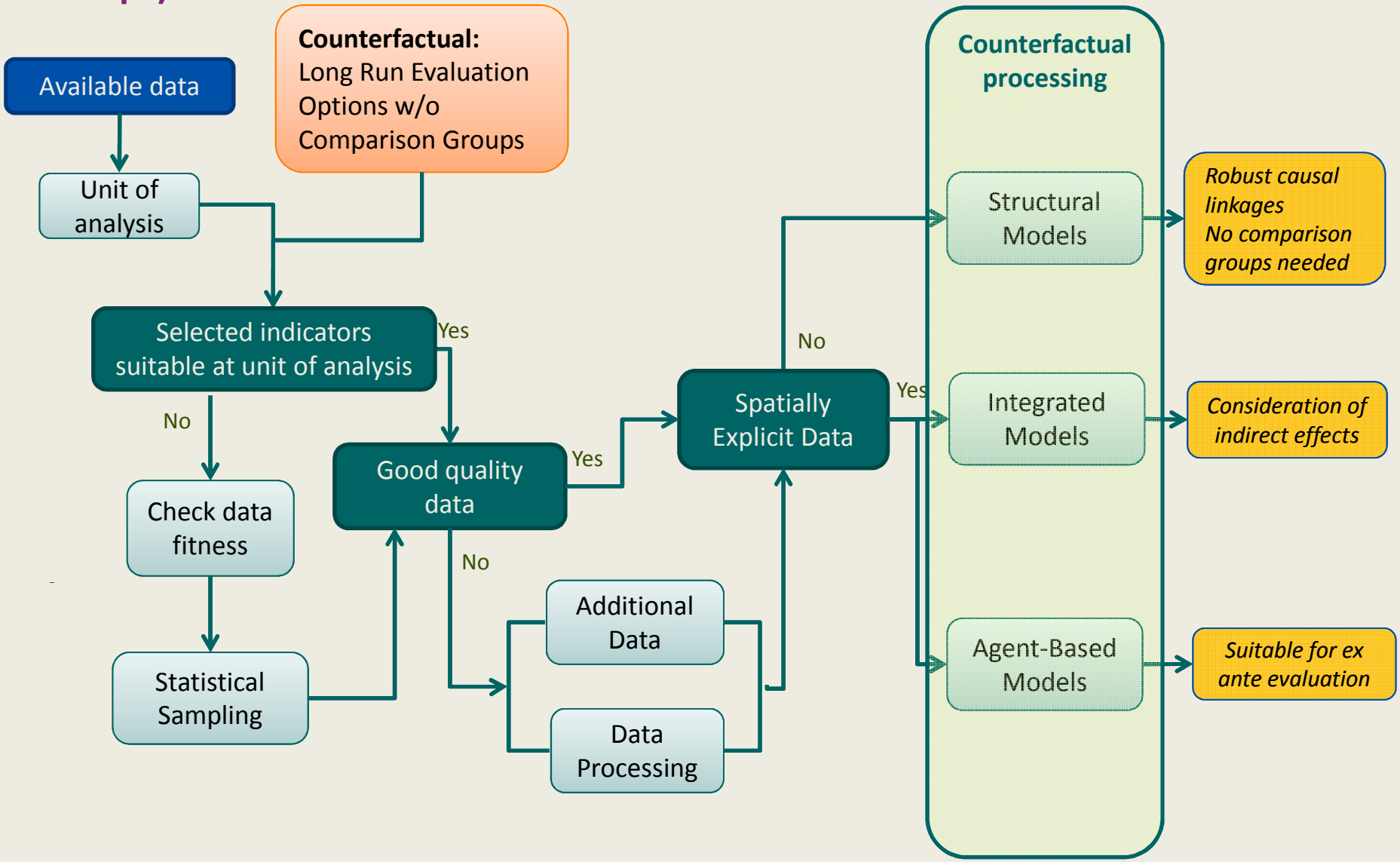

General logic model: Steps 1.1 – 1.4
CMES
RDP
Measure(s)
Evaluation Questions
Intervention logic
Policy uptake
(Output indicator)
Area under successful management
(Result indicator)
Impact indicators
QUALITATIVE METHODS UNDERLIE THE WHOLE EVALUATION PROCESS
Environment
Public Good
Review of intervention logic and causal relationships
Selection of indicator(s)
Observation of environmental change
Data availability (to capture:
• Intended & unintended effects
• Direct & indirect effects)
Definition of unit of analysis
Micro Level*
Counterfactual design
Selection of evaluation methods
Possible Upscaling and downscaling
Consistency checks
Macro Level*
Counterfactual design
Selection of evaluation methods
Evaluation path
* Specific layer of the logic model
Unit of analysis
Direct & indirect effects
Direct & indirect effects
Net-impacts


Counterfactual layer: Steps 2.1 and 2.3
* Assuming used indicator causally matched to the unit of analysis, farm or region.
** Requires common underlying population between farms or regions under comparison and statistically representative samples.
Policy uptake
CMES: Available data
Public good indicator Available data
Comparison groups exist
NO
Sufficiently accurate model exists
YES
Advanced econometric or environmental-economic modelling approaches without comparison groups
Evaluation Options without Comparison Groups
YES
NO
Groups comparable (data)
Time for evaluation
YES
YES**
NO
Classic approach: Two groups
Alternative approach: Multiple groups
Qualitative analysis
Naïve baseline comparison
Naïve group comparison
Qualitative and Naïve Quantitative Evaluation Options – Ad-hoc Approach to Sample Selection
with-and-without
Variables explaining participation known
NO
Timescale
Difference -in- differences
before-and-after & with-and-without
YES
Timescale
with-and-without
(Generalized) Propensity score matching
before-and-after & with-and-without
Joint propensity score matching and difference-in-differences
Other regression techniques covering sample selection
Statistics-based Evaluation Options – Explicit Approach to Sample Selection

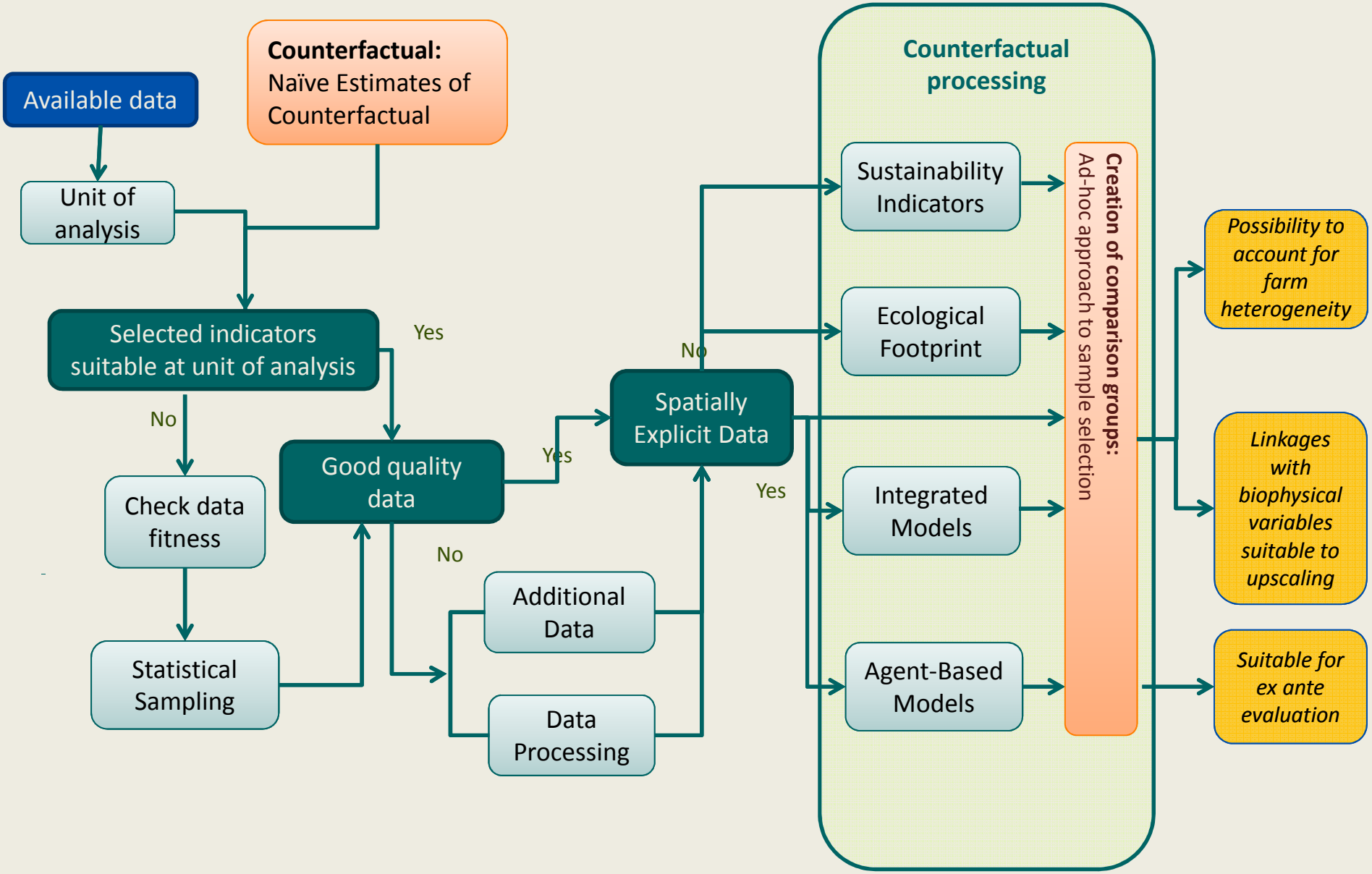
Micro level logic model: Steps 3.1 and 3.2 (Unit of analysis, Indicators and Data Quality)



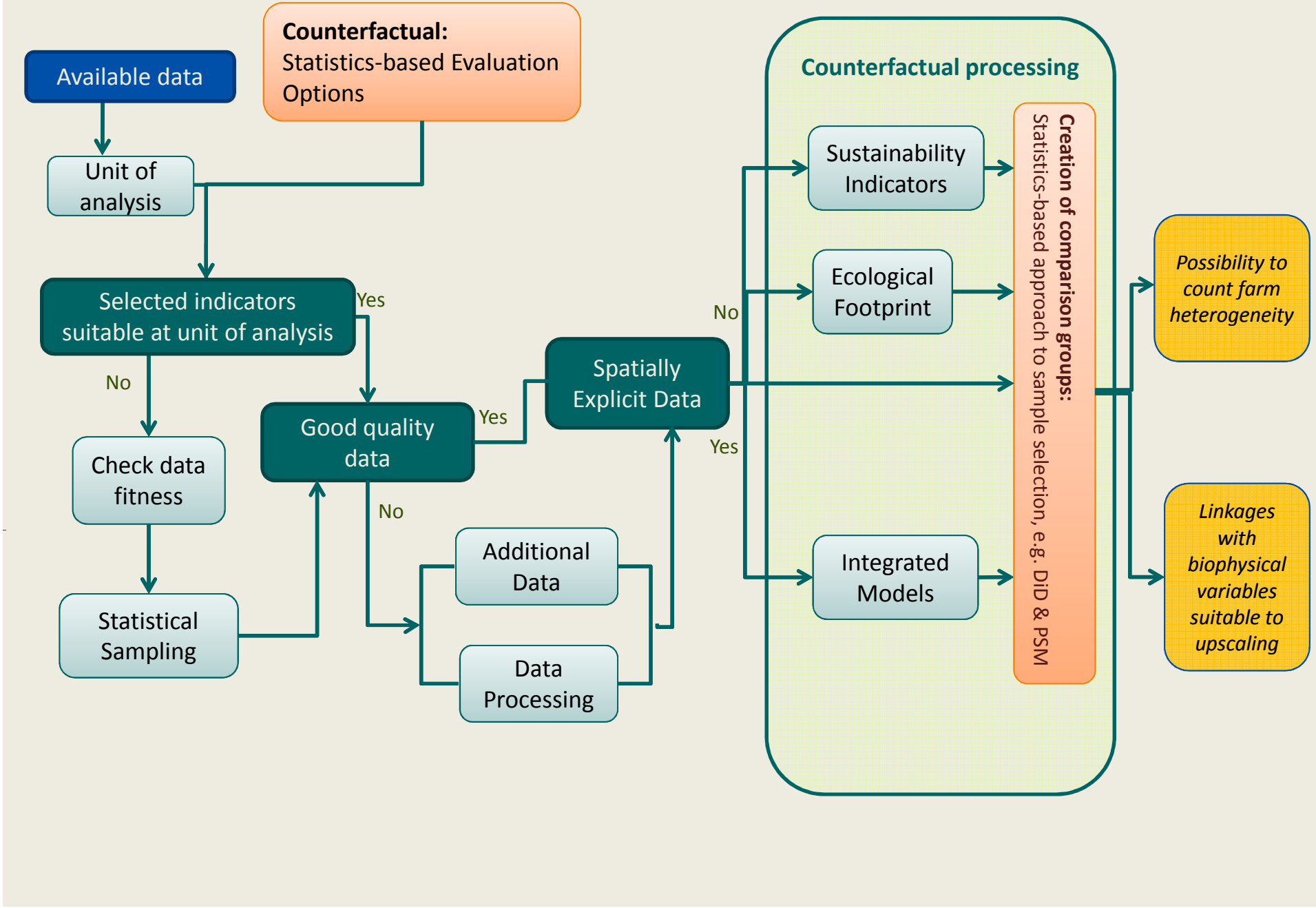
Micro level logic model I: Step 3.3a (Long Run Evaluation Options w/o Comparison Groups)



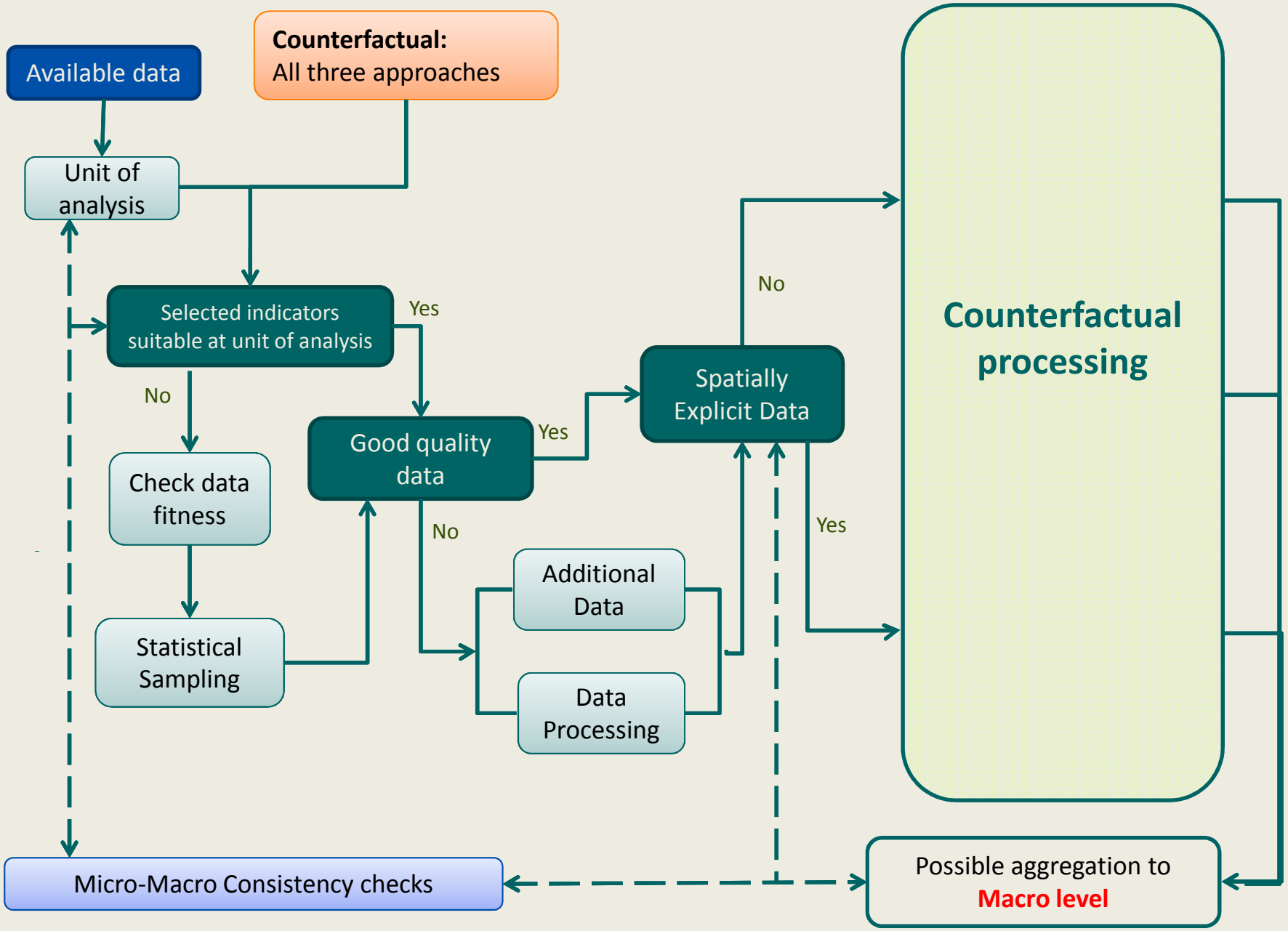
Micro level logic model II: Step 3.3b (Naïve Estimates of Counterfactual)



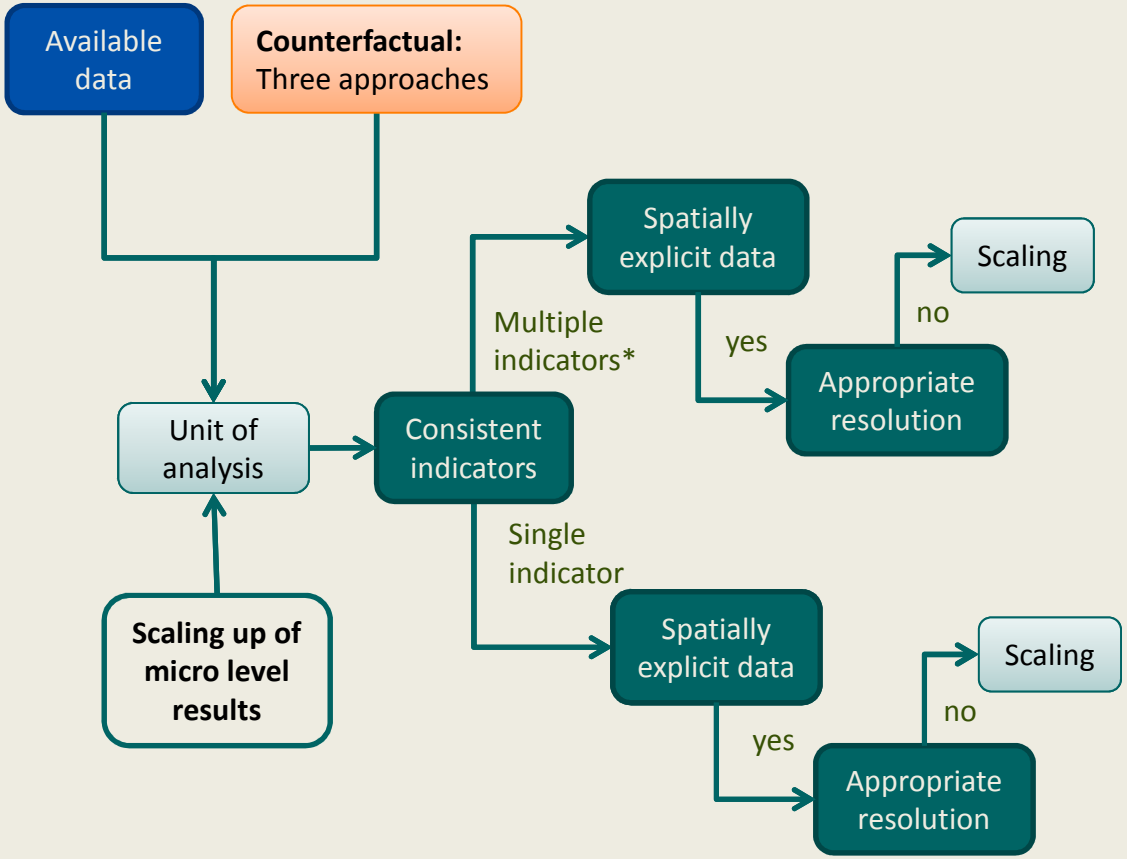
Micro level logic model III: Step 3.3c (Statistics-based Evaluation Options)



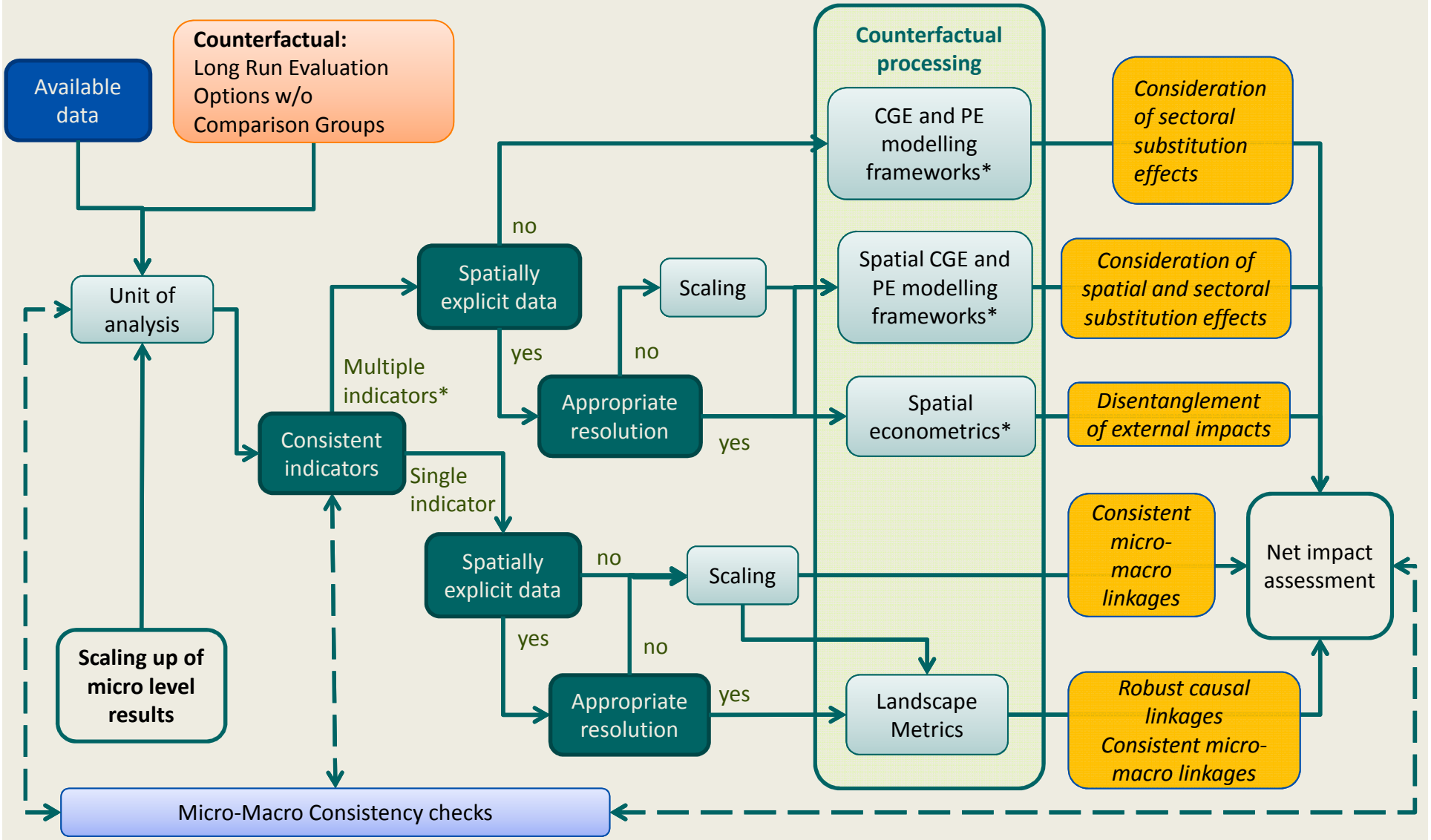
Micro level logic model: Step 3.4 (Micro-Macro aggregation and validation)



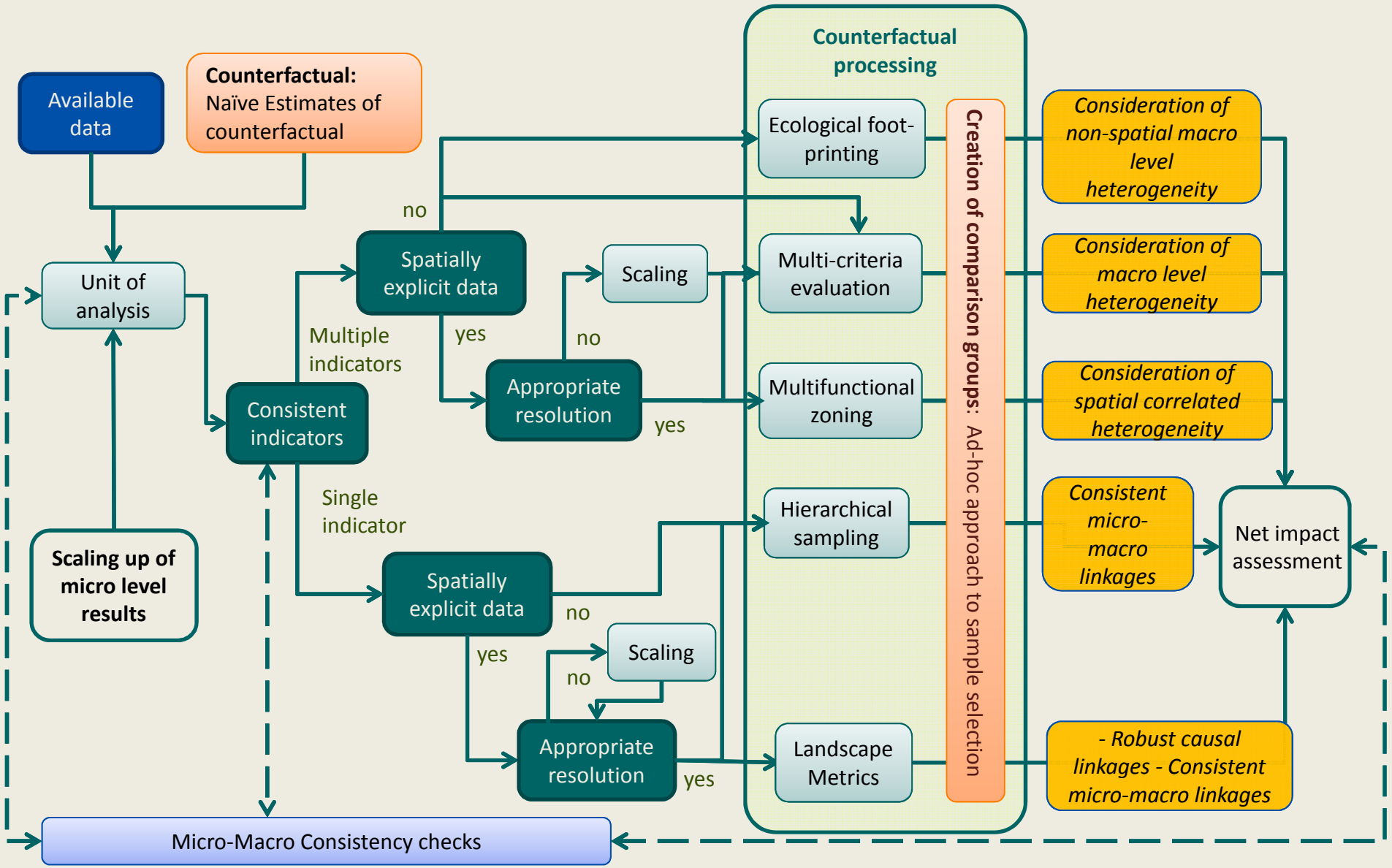
Macro level logic model: Steps 4.1 and 4.2 (Functional Units, Indicators and (Spatial) Data Quality)



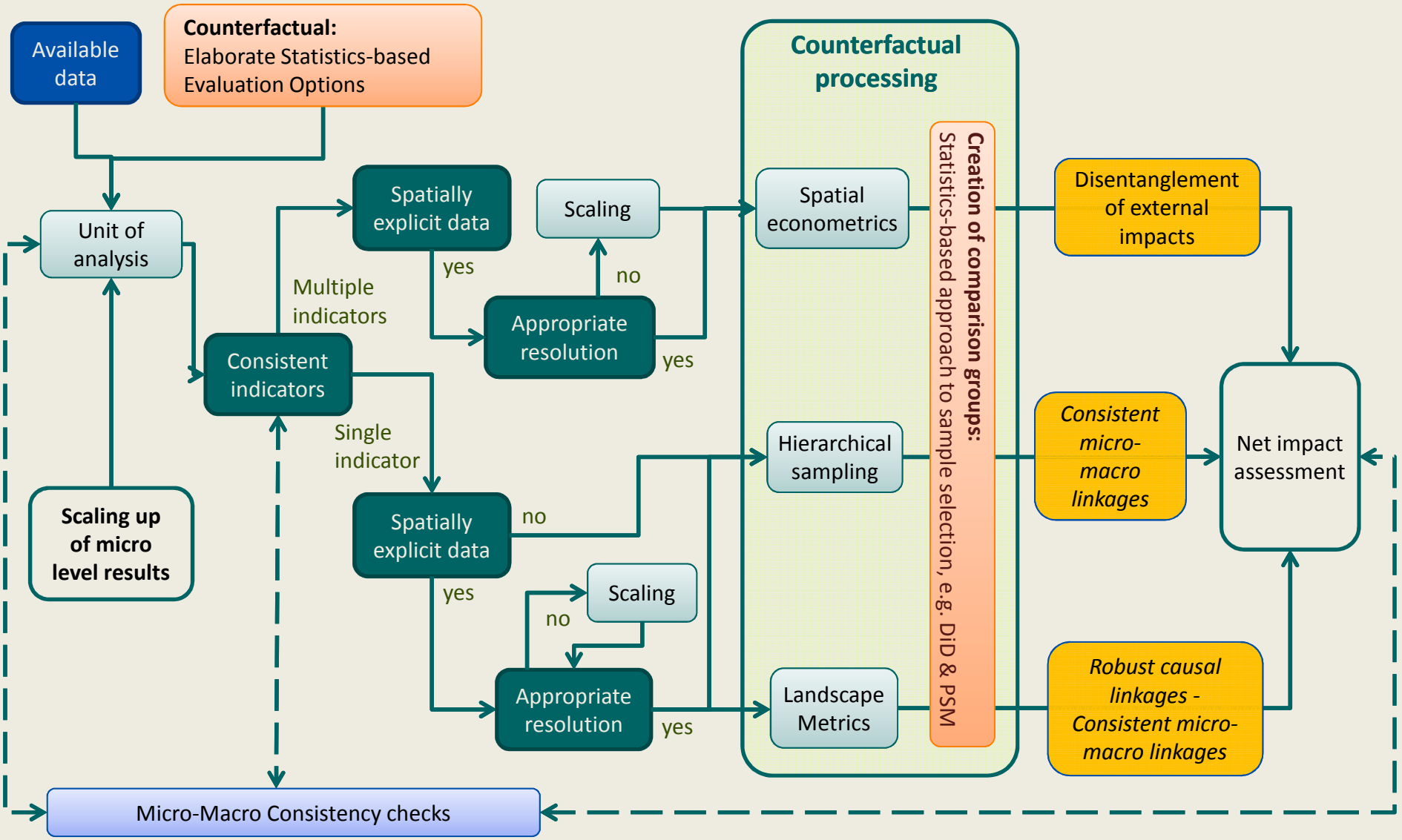
Macro level logic model I: Step 4.3a (Long Run Evaluation Options w/o Comparison Groups)



Macro level logic model II: Step 4.3b (Naïve Estimates of Counterfactual)



Macro level logic model III: Step 4.3c (Elaborate Statistics-based Evaluation Options)



Macro level logic model: Step 4.4 (micro-macro consistency checks)