Sustainability Impact Assessment (SIA) of Policies

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Impact Assessment

Definition

Following the explanations given on the homepage of the Secretariat-General of the European Commission (EC 2009) **Impact Assessment** (IA) is described as:

"**Impact assessment** (IA) is a process aimed at **structuring** and **supporting** the **development of policies**. It identifies and assesses the **problem** at stake and the **objectives** pursued. It identifies the main options for achieving the objective and analyses their likely impacts in the **economic, environmental and social fields**. It outlines advantages and disadvantages of each option and examines possible synergies and trade-offs.
Impact assessment is an aid to political decision, not a substitute for it. It informs decision-makers of the likely impacts of proposals, but it leaves it up to them to take the decisions."

Focus: Policies assessment in the context of **Sustainable Development** and EU **Sustainable Development Strategy** (EU 2001) focused on sustainable /multifunctional rural development in PRIMA

Environmental Impact Assessment

Definition

Environmental Impact Assessment is defined by CEC (2009) as:
“The EIA procedure ensures that **environmental consequences of projects** are identified and assessed before authorisation is given. The public can give its opinion and all results are taken into account in the authorisation procedure of the project. The public is informed of the decision afterwards. The EIA Directive (CEC 1985) outlines which project categories shall be made subject to an EIA, which procedure shall be followed and the content of the assessment.”

Focus: Environmental Assessment of **projects**

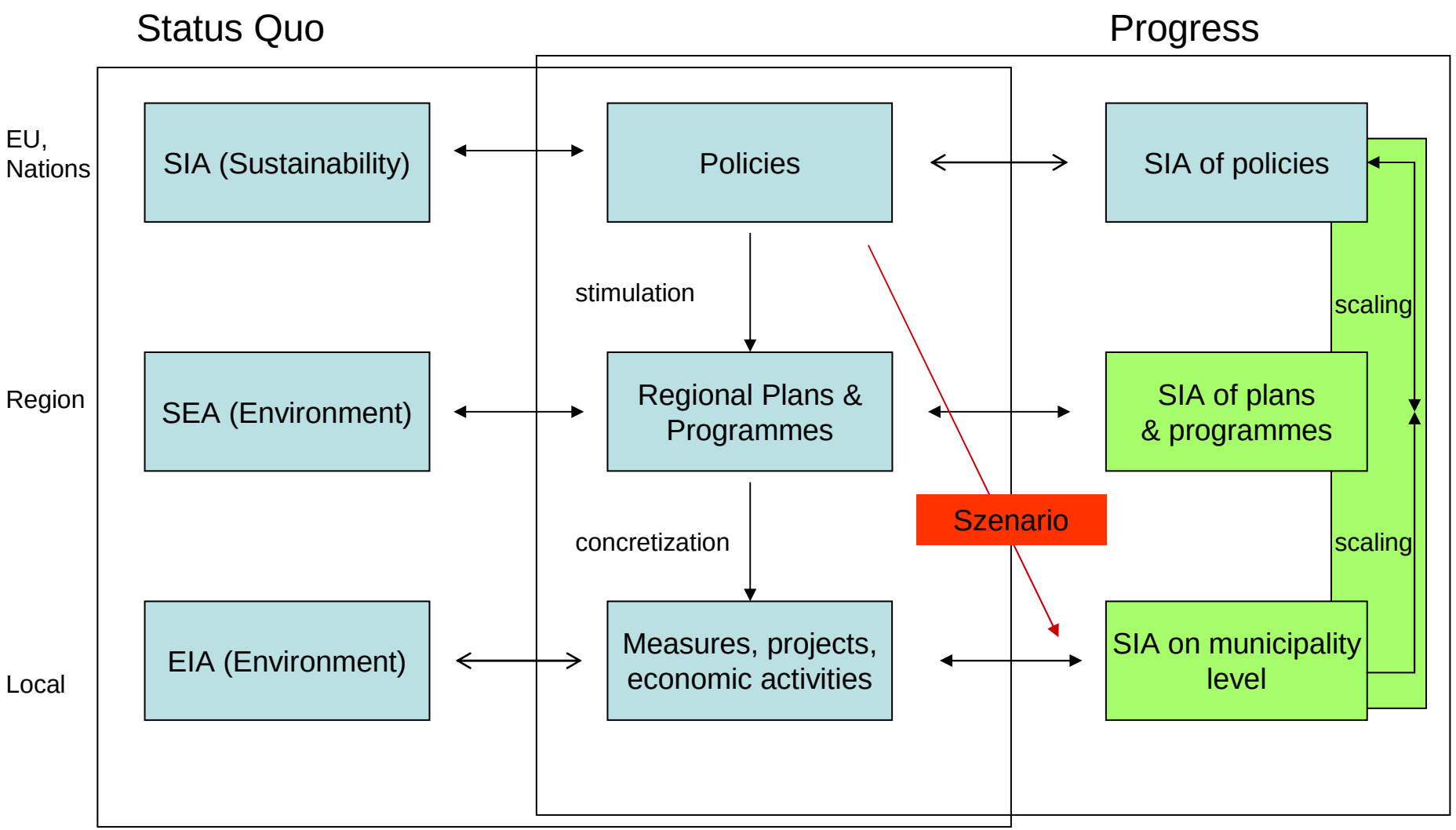
Strategic environmental Assessment

Definition

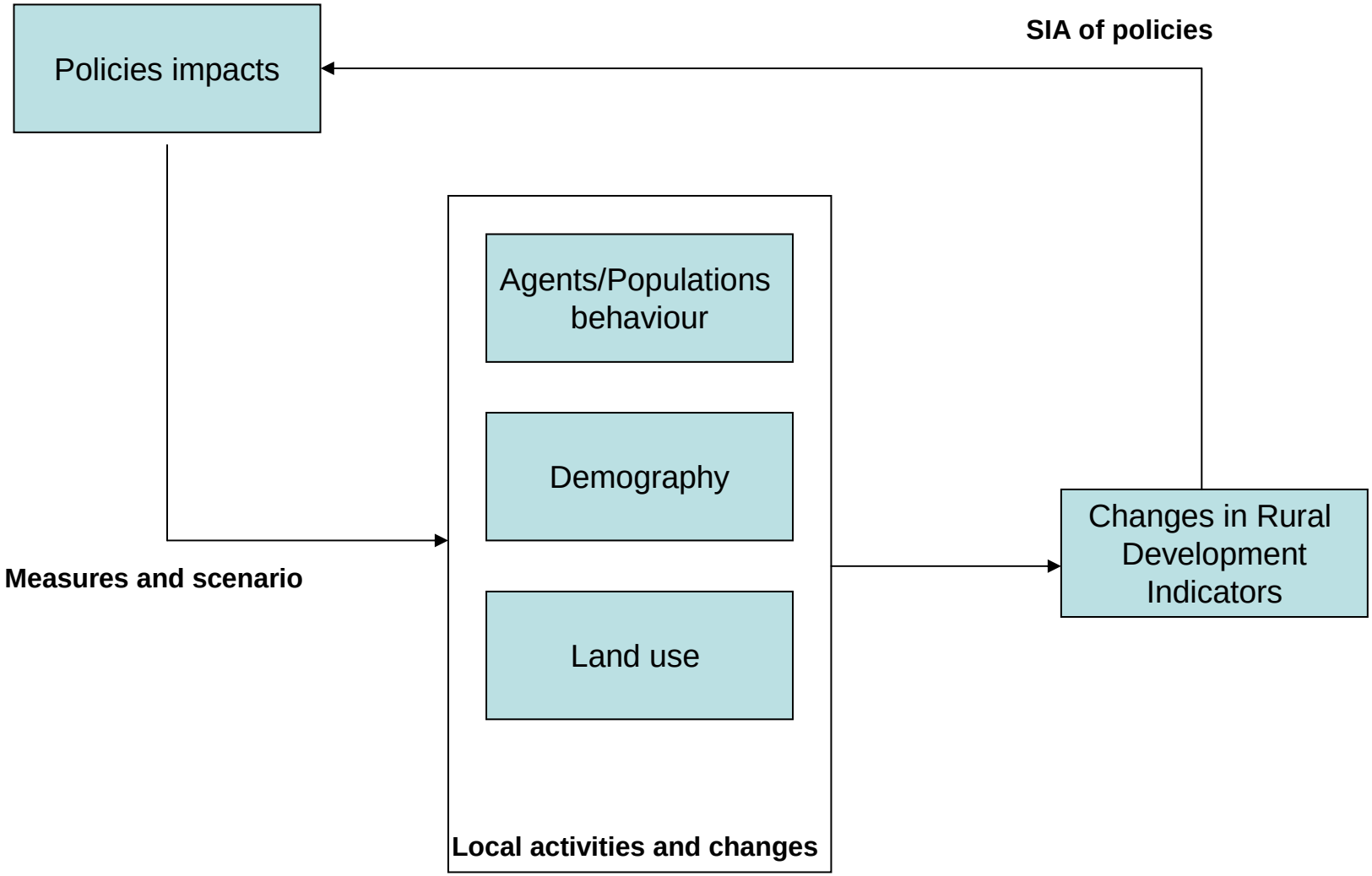
The goal of the **Strategic Environmental Assessment** is defined by § 1 CEC (2001):
"The objective of this [Strategic Environmental Assessment] Directive is to provide for a high level of protection of the environment and **to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development**, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."

Focus: Environmental Assessment of **plans and programmes**

How to break down policies impacts to Sustainability Impact Assessment (SIA) on regional and local scale in the context of rural development policies?



Approach


Policies impacts
SIA of policies
Agents/Populations behaviour
Demography
Land use
Changes in Rural Development Indicators
Measures and scenario
Local activities and changes

Problems to SIA

- **No assessment procedure exists to reach all** the aspects of SIA in an integrative way – SIAT from other projects can maybe help?
- Widen the assessment to the three axis of sustainability: **balanced list of indicators from environment, social and economy**: no generally applicable list of indicators is available
- Develop methods to widen the scope of SIA without neglecting SEA and EIA experiences (= Environment is the basis)
- Apply an **integrative approach** and not a sum of sectoral applications

CMEF (Common Monitoring and Evaluation Framework) - Indicators for SIA

List of indictors for usage in PRIMA

Indicator about the importance of rural area

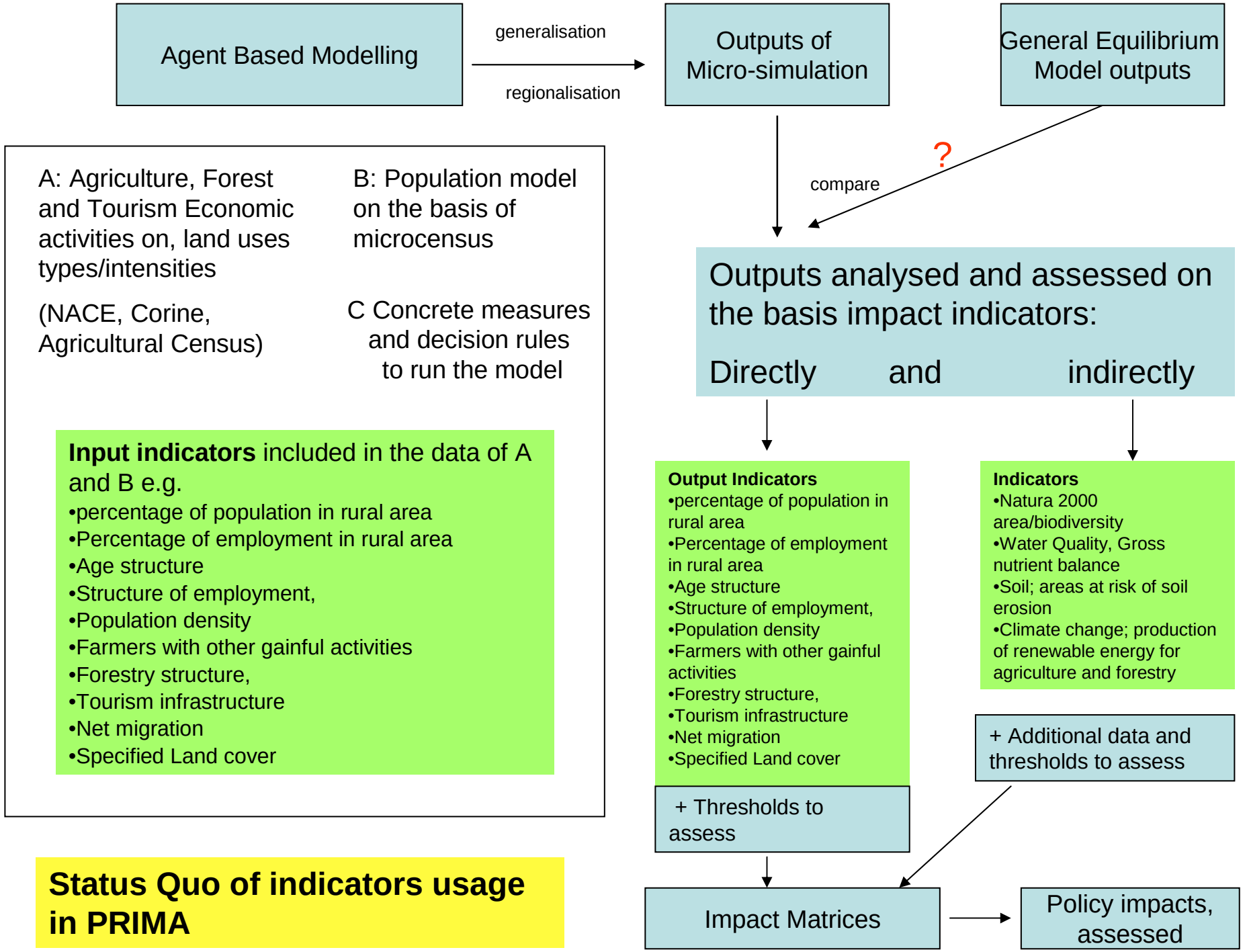
- % population in rural areas
- % employment in rural areas.

Socio-economy, sectoral economy and quality of live (12 indicators)

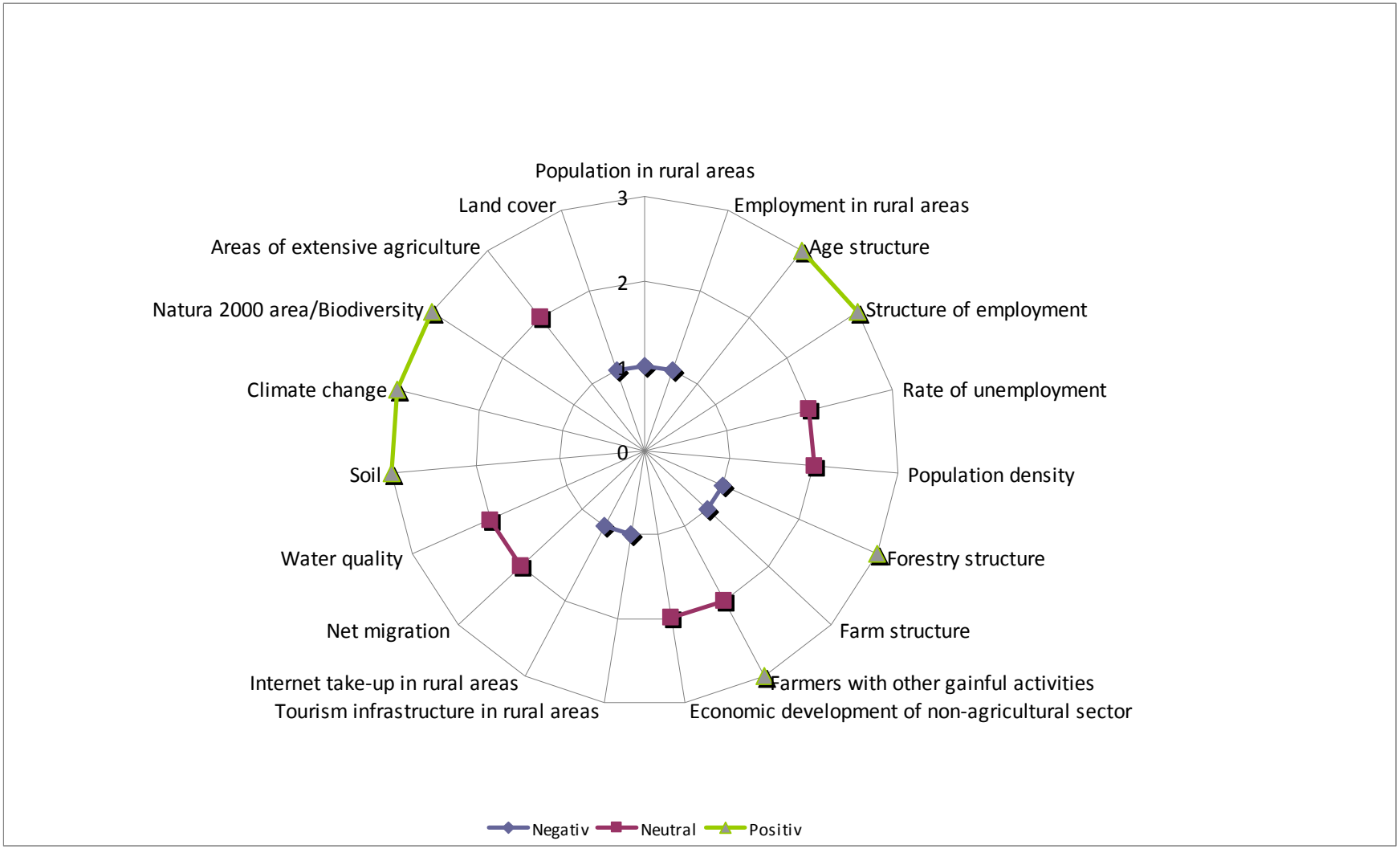
- Age structure (% of people aged (0-14) y.o./(15-64) y.o./>=65 y.o. in total pop.)
- Structure of employment (% employment by branch (Primary / Secondary / Tertiary sector)
- Rate of unemployment (% active population)
- Population density
- Forestry structure (Area of forest available for wood supply (FAWS))
- Farm structure (Number of farms)
- Farmers with other gainful activities (% holders with other gainful activities)
- Economic development of non-agricultural sector (GVA in secondary and tertiary sectors)
- Tourism infrastructure in rural areas (Number of bed places (in hotels, camping's, holiday dwellings, etc)
- Internet take-up in rural areas (% of population having subscribed to DSL internet)
- Net migration (net migration rate)

Environment (6 indicators)

- Water quality: Gross Nutrient Balances (Surplus of nitrogen in kg/ha)
- Soil: Areas at risk of soil erosion (Areas at risk of soil erosion (classes of T/ha/year))
- Climate change: Production of renewable energy from agriculture and forestry (Production of renewable energy from agriculture and forestry ktoe))
- NATURA 2000 area/Biodiversity (% territory under NATURA 2000)
- Areas of extensive agriculture (UAA for extensive arable crops/grazing)
- Land cover (% area in agricultural / forest / natural / artificial)


Agent Based Modelling
generalisation
regionalisation
Outputs of Micro-simulation
General Equilibrium Model outputs
compare
?
A: Agriculture, Forest and Tourism Economic activities on, land uses types/intensities
(NACE, Corine, Agricultural Census)
B: Population model on the basis of microcensus
C Concrete measures and decision rules to run the model
Input indicators included in the data of A and B e.g.
•percentage of population in rural area
•Percentage of employment in rural area
•Age structure
•Structure of employment,
•Population density
•Farmers with other gainful activities
•Forestry structure,
•Tourism infrastructure
•Net migration
•Specified Land cover
Outputs analysed and assessed on the basis impact indicators:
Directly and indirectly
Output Indicators
•percentage of population in rural area
•Percentage of employment in rural area
•Age structure
•Structure of employment,
•Population density
•Farmers with other gainful activities
•Forestry structure,
•Tourism infrastructure
•Net migration
•Specified Land cover
Indicators
•Natura 2000 area/biodiversity
•Water Quality, Gross nutrient balance
•Soil; areas at risk of soil erosion
•Climate change; production of renewable energy for agriculture and forestry
+ Additional data and thresholds to assess
+ Thresholds to assess
Impact Matrices
Policy impacts, assessed
Status Quo of indicators usage in PRIMA

Potential SIA outcomes – Work in progress



Sum up

Development of an integrative assessment procedure for policies assessment on the basis of CMEF indicators

A balanced list of indicators for environment, social and economy is selected by using experts and stakeholders knowledge

Methods of Agent Based Modelling, Micro-simulation and Equilibrium Modelling are used in PRIMA.

The scope of SIA will be widened without neglecting SEA and EIA experiences (= Environment is the basis)

Landscape ecology provides a wide range of methods and experiences to solve the complex and multi-scale problem

Thank you

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