

PLUREL



Sustainability
Impact Assessment

Module 4

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STRATEGIES AND SUSTAINABILITY ASSESSMENT
TOOLS FOR URBAN-RURAL LINKAGES,
INTEGRATED PROJECT,
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D4.1.1a

FAQ by regional and local stakeholders and answer potentials by PLUREL

The case study perspective

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Abstract

The objective of the deliverable is to compile a list of FAQ by regional and local stakeholders from the materials of Module 3 and to identify the answer potential that PLUREL can provide. In terms of the methodology used it is a data collection. The results of the compilation are presented in a table which represents the major content of D4.1.1.NEW. A popular science description of main results is not necessary in this case.



Classification of results/outputs:

For the purpose of integrating the results of this deliverable into the PLUREL Explorer dissemination platform as fact sheets and associated documentation please classify the results in relation to spatial scale; DPSIR framework; land use issues; output indicators and knowledge type.

<p>Spatial scale for results: Regional, national, European</p>	<p>regional</p>
<p>DPSIR framework: Driver, Pressure, State, Impact, Response</p>	<p>Driver, Response</p>
<p>Land use issues covered: Housing, Traffic, Agriculture, Natural area, Water, Tourism/recreation</p>	<p>All</p>
<p>Scenario sensitivity: Are the products/outputs sensitive to Module 1 scenarios?</p>	<p>Yes</p>
<p>Output indicators: Socio-economic & environmental external constraints; Land Use structure; RUR Metabolism; ECO-system integrity; Ecosystem Services; Socio-economic assessment Criteria; Decisions</p>	<p>None</p>
<p>Knowledge type: Narrative storylines; Response functions; GIS-based maps; Tables or charts; Handbooks</p>	<p>Narratives</p>
<p>How many fact sheets will be derived from this deliverable:</p>	<p>1</p>



FAQ by regional and local stakeholders and answer potentials by PLUREL

The table which collects the major questions asked by stakeholders in the case studies and during the case study meetings in PLUREL. It is structured in 3 major columns: the question itself, the answer by PLUREL in terms of results/facts and the responsible project partner(s). The list of questions bases on material elaborated in Module 3.

Question from regional stakeholders	What do we produce in PLUREL to answer them?	Responsible (suggestions)
<p>1. How to coordinate planning and decision making in complex situations with a large number of powerful actors with competing interests and a competitive attitude?</p>	<ul style="list-style-type: none"> • PLUREL provides a comprehensive overview of planning and governance schemes for the peri-urban area at 2 scales: EU27 and case study level (M2, M3). • The <i>ABMland</i> approach shows in generic form the benefits and negative effects of cooperative and individualistic behaviour as well as of learning (M4). 	<p>Ivan Tosics, Carmen Aalbers (+ all case study coordinators)</p> <p>Mark Rounsevell, UFZ (Nina Schwarz, Dagmar Haase)</p>
<p>2. What are possible approaches for integrating the presently conflicting land use demands between different user groups and uses (agriculture, tourism, urban development, etc.) in regional development?</p>	<ul style="list-style-type: none"> • PLUREL integrates different planning strategies and land use demands (e.g. demand on residential land driven by population changes) into the MOLAND and MOLAND light models at case study level to 1) identify their spatial land use change outcomes and 2) to assess the policies (M2, M3, M4). • Cost-benefit Analysis (CBA) with real option to assess costs and benefits as well as irreversible environmental impacts of the implementation of spatial policies in the case study regions. • PLUREL can show how to assess these demands in terms of their impacts and how to weight them → MCA 	<p>Gertrud Jorgensen, Dagmar Haase, Carmen Aalbers, JRC-team (e.g. Carlo Lavalle, Sara Mubareka, Francisco Escobar), RIKS-team (Hedwig van Delden)</p> <p>Tim Taylor</p>

<p>3. How to keep a balance between small rural municipalities and pressures from big cities?</p>	<ul style="list-style-type: none"> • PLUREL develops comprehensive insights into governance and planning schemes for peri-urban areas to negotiate mutual interests on limited land resources (published in the PLUREL Book and the Policy brochure). • The integrated assessment of the environmental, social and economic impacts of land use change and policy implementation with a multicriteria (MCA) (spidergrams) approach enables to produce 'balanced' scenarios. 	<p>Ivan Tosics, Carmen Aalbers, Stephan Pauleit, Annette Piorr</p> <p>UFZ and ZALF teams</p>
<p>4. How to steer sustainably land use development in an urban region with close neighbourhoods of "islands of suburban growth" and urban decline (vacancies, brownfields)?</p>	<p>See 2.</p>	
<p>5. What is the role of identity (incl. specific properties, pattern, and governance structures) of the urban fringe for development and sustainability of land use relations in the urban fringe?</p>	<ul style="list-style-type: none"> • PLUREL provides a RUR-typology which identifies the peri-urban areas for all NUTS3 regions across Europe. • NUTS3/X response functions give information about the impacts of land use or population change; also over time using the RUG model results 2000-2025. All respective NUTS3/X results are incorporated in the iIAT-EU. • At case study level, we provide rural-to-urban gradients of land use fractions and impact indicators which enables to compare the peri-urban area with the urban and the rural hinterland. All respective impact assessment results are incorporated in the iIAT-Region. 	<p>Wolfgang Loibl</p> <p>Annette Piorr and ZALF-team</p> <p>Felix Müller, Franziska Kroll, Dagmar Haase, Nina Schwarz</p>

<p>6. Do the people have a choice where to live or is their choice restricted to their income?</p>	<p>PLUREL develops an adaptive conjoint analysis to create a simulator for quality of life preferences and their respective change in case of land use change.</p>	
<p>7. Do people need a car for their daily living?</p>	<p>The need for cars will increase as in-commuting from peri-urban and rural areas to cities increase; it will increase in response to non-rural job-growth in peri-urban areas; and it will generally increase in response to more dispersed settlement patterns. Here, PLUREL developed commuting curves for European urban regions that had been incorporated in the RUG model at EU27 level.</p>	<p>Mika Ristimäki, Ville Helminen Sophie Rickebusch</p>
<p>8. And who has which share in the costs? Who pays, who gains?</p>	<p>PLUREL compares rural, peri-urban and urban areas directly as part of the impact assessment and can thus give answers in terms of ecosystem services (ESS) and quality of life (QoLSim) issues as well as cost benefit analysis (CBA).</p>	<p>Tim Taylor</p>
<p>9. What happens to existing farming systems at the urban fringe?</p>	<p>Here, the iIAT-EU provides indicator information on the development of farms and their expenditures.</p>	<p>Annette Piorr</p>
<p>10. Which interactive models / tools can be provided to simulate land development patterns and their environmental impact to support planning process? Interactive models simulating alternative land development patterns, and their environmental impact, would be useful tools to support the planning process and the policy coordination of local governments.</p>	<p>PLUREL provides models that simulate land development at 2 scales:</p> <ul style="list-style-type: none"> ○ RUG model that identifies unsealed and sealed land across Europe ○ MOLAND model provides spatially land use change maps and rules for change for the case studies ○ Based on the RUG and MOLAND model results impact indicators are computed for the case study regions. Results are transferred to the integrated iIAT tool. 	<p>Mark Rounsevell, Sophie Rickbusch JRC-team, RIKS-team ZALF-team, UFZ-Team</p>

	The MOLAND model and the iIAT are interactive in the way they are produced together with the stakeholders but they are static in the final CUBE.	
11. How to combine regional economic growth with quality of green space in the region?	MOLAND and MOLAND light produce demand of residential land and resulting supply of green space at case study level for different scenarios and policies. They are given as maps and graphs.	JRC-team, RIKS-team
12. How are natural resources (land consumption, recreation, water consumption and availability, soil fertility, biodiversity, tourism, flood, fire risks, food production + its proximity) considered in planning processes in terms of SIA and regional decision making?	At both scales, EU27 and regional scale, the iIAT (Integrated Impact Assessment Tool) provides respective indicator values that show the degree and change of resource consumption and use. The IA bases on the results of land use change models that consider land use planning, particularly at the regional scale.	ZALF-team, UFZ-team, RIKS-team
13. Can a theoretical framework for the analysis and evaluation of previous and existing policy practices and its outcomes be developed?	PLUREL provides the Joint Analytical Framework for case study analysis and a scenario-policy-integration framework for the MOLAND application.	Carmen Aalbers, Gertrud Jörgensen, JRC-team
14. Can this framework be applied to benchmark approaches in different urban regions for exchange of good and bad practices in land use planning and management (→learning)?	PLUREL provides experiences of locally adapted land use change and policy implementation simulation (incl. planning games) as 1) training material and 2) documented learning experiences from the cases.	Case study teams, JRC-team, RIKS-team, Gertrud Jörgensen
15. How can information and tools be effectively disseminated to the scientific and professional communities, NGOs and the public?	<ul style="list-style-type: none"> • PLUREL will produce user-specific outputs in terms of land use scenarios and impact indicators that address to the main end-user groups of PLUREL. Therefore, PLUREL develops an own publication strategy. • Forms of dissemination material: PLUREL Xplorer, iIAT, MOLAND light, practitioner's book, training material, scientific 	<p>Stephan Pauleit, Wolfgang Loibl, Duzan Doepel</p> <p>Ralf Seppelt, Dagmar Haase (Publication strategy)</p>

	knowledge and papers, tools.	
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