

Key Issues in Sensitive Regions in Europe

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Résumé – Le projet Européen SENSOR développe instruments pour évalue scénarios de land usage multifonctionnelles examinant aspects environnementales, sociales et économiques en toute l'Europe. Problèmes principales sont focalisez sur régions sensitive comme montagnes, îles, zones littorales et zones post-industrialisées. Exemples de problèmes sont la dégradation de sols et limitation d'eau, la déperdition d'identité culturelle et l'utilisation raisonnable de bioénergies. Le défi principal de SENSOR est à développer un outil approprié pour officiers locales et Européens et à considérer exemples réales.

Abstract – The integrated E.U. project SENSOR develops tools for the ex-ante evaluation of multifunctional land use policy scenarios considering environmental, social and economic issues in the entire Europe. Key problems of sustainability such as the degradation of soils and the limited water availability, the loss in cultural identity and the appropriate integration of bio-energy were addressed in sensitive regions such as mountains, islands, coastal zones and post-industrialized zones. The SENSOR challenge is to provide tools for an ex-ante impact assessment for both local and E.U. desk officers and also policy makers which reflect real cases.

Extended Summary

Introduction

The sustainability of land use in European regions has become an indispensable standard for policy and management decisions at both regional and European level. The transdisciplinary integrated E.U. project SENSOR 'Sustainability Impact Assessment: Tools for Environmental, Social and Economic Effects of Multifunctional Land Use in European Regions' (www.sensor-ip.org, Fig. 1) has been designed to develop robust sustainability assessment tools (SIAT) for the ex-ante evaluation of policy options with reference to impacts on environmental, social and economic issues. Cost-benefit and cost-effectiveness analysis of policy implementation will be part of the SIAT's functions to ensure the win-win scenario for local and regional societies. Scenario techniques are evolving from a modelling framework, reflecting various options of multifunctional land use and interactions between land use systems. SENSOR apply to the following land use types: Agriculture, forestry, nature conservation, transport and infrastructure, energy and tourism.

SENSOR module 6 focuses key issues of sustainability in sensitive regions particularly those in new E.U. member countries since accession related transition problems exceed those already known and call for the revision of land use policies. Mountains, coastal zones, islands and post-industrialized zones are considered as sensitive due to the magnitude and variety of ecological, social and economic changes. The consideration of sensitive regions will ensure the robustness and the applicability of the SIAT.

The paper summarises the bottom-up approach in SENSOR module 6 'Sustainability issues in sensitive regions' during the early stages of the project and some observations of the preliminary analysis in sensitive regions in Europe.

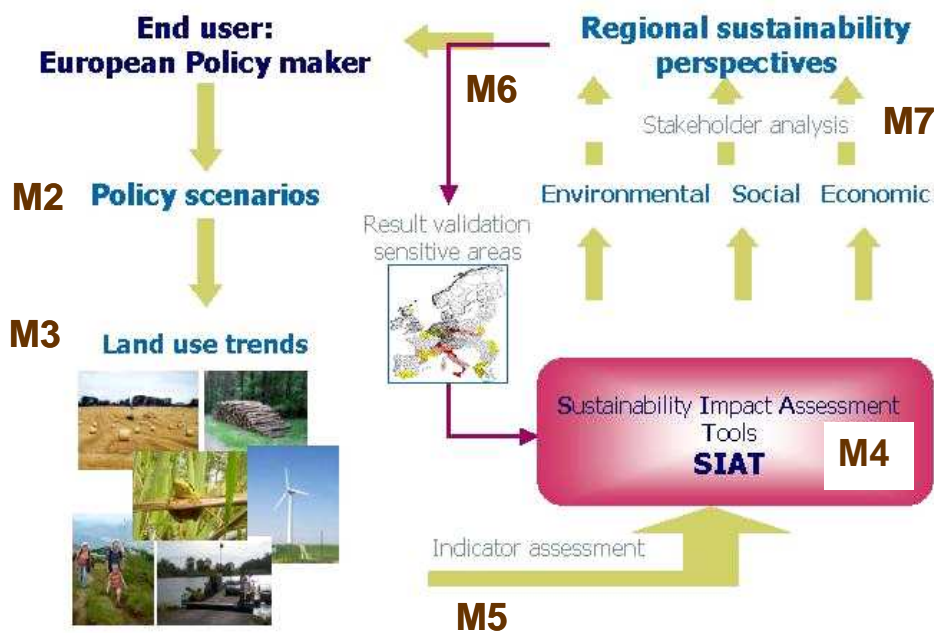


Fig. 1. E.U. IP SENSOR design with the project modules ‘Scientific co-ordination and project management’ M1 (not shown), ‘European land use scenario assessment and forecasting’ M2, ‘Regional sustainability problems, risks and thresholds’ M3, ‘SIAT integration and end user tool’ M4, ‘Integrated data and indicator management’ M5, ‘Sustainability issues in sensitive regions’ M6 and ‘Stakeholder participation and institutional analysis’ M7.

Sensitive regions

The analysis of intra- and interregional sustainability issues will tackle four region types which are considered as sensitive: (i) post-industrial zones, (ii) mountainous areas, (iii) islands, and (iv) coastal zones. Special focus is given on e.g. urban sprawl, land abandonment, loss of rural infrastructure, tourist development, industrial regression, and demographic imbalance. The regions have discrete administrative areas at regional levels of governance and should represent at least one major environmental problem with major socio-economic impact within a region and/or beyond and should be relevant to other European regions. The selection of case studies is based on a pan-European survey of sensitive areas which informs about specific and general key issues of sustainability and helps to identify hot-spots. Real examples (case studies) were selected particularly in E.U. accession countries and areas representing significant socio-economic disadvantage. Such an approach will help to increase the institutional competence for solving environmental problems and for implementing European regional policies within these regions and countries and, thus, fostering efforts of harmonisation and integration within Europe.

The case studies provide a basis for the development and testing of SIAT. This will be done through trans-disciplinary analysis of anthropogenic pressures, existing expert knowledge, the impacts of degradation and devastation, and efforts at rehabilitation of cultural landscapes. Dependent on data accessibility and for getting areas of comparable size, 573 NUTS regions were distinguished by the combination of NUTS-2 and NUTS-3 regions for the E.U. 25+2+2+1 countries (Fig. 2).

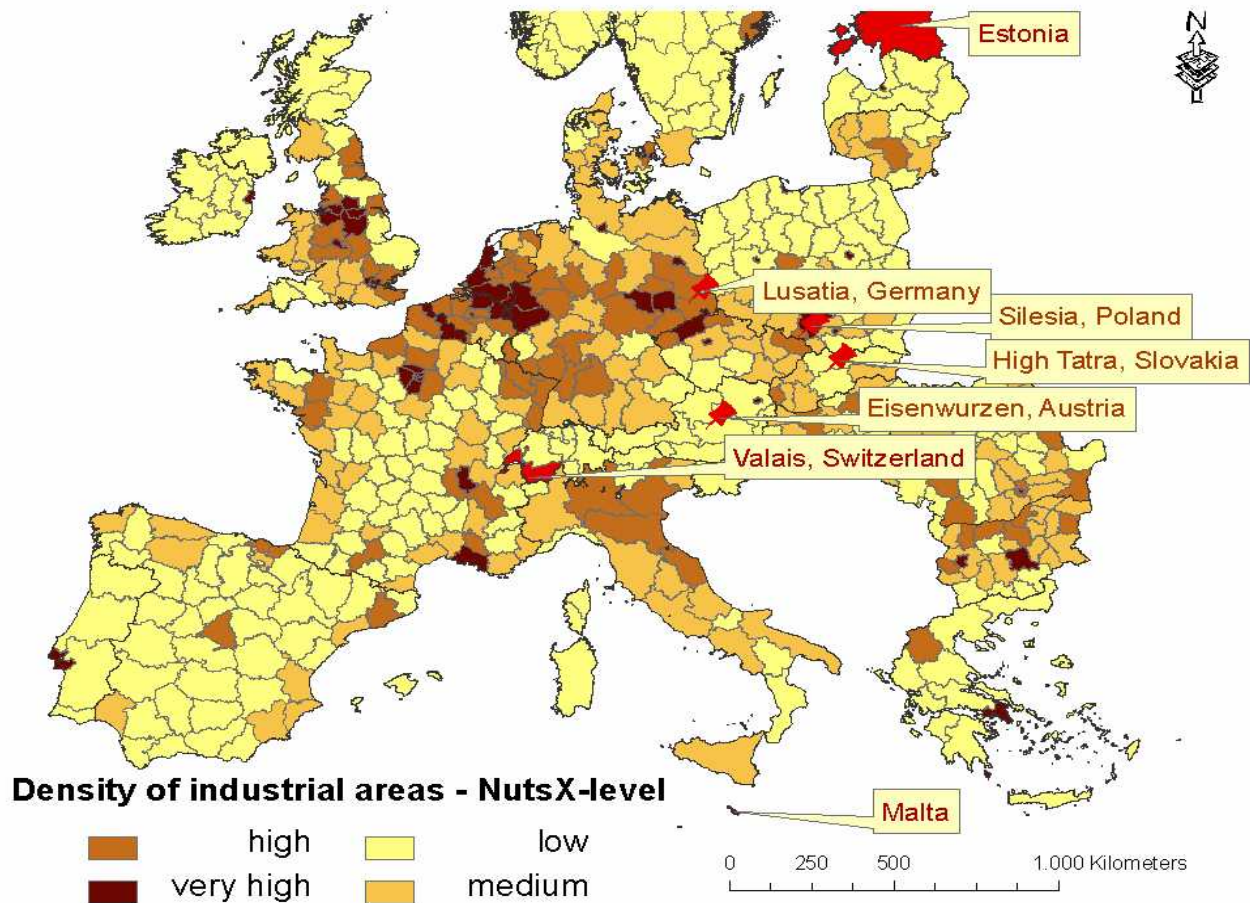


Fig. 2. European NUTSx map with 573 areas and 7 sensitive case study regions indicated with arrows; map mod. after Institute of Soil Science and Plant Cultivation, Puławy, Poland

Impact Assessment

Impact assessment is a set of logical steps which structures the preparation of policy proposals. Recently, the impact assessment guidelines were launched by the European Commission in June 15, 2005 (SEC(2005) 791). Impact assessment is an aid to political decision making with the following 6 steps (1) Identify the problem, (2) Define the objectives, (3) Develop main policy options, (4) Analyse their impacts, (5) Compare the options and (6) Outline policy monitoring and evaluation. SENSOR and the SIAT were mainly referring to (4) to (5).

Environmental, social and economic impacts are addressed in sensitive regions according to these guidelines separating 12 environmental, 9 social and 11 economic impacts (Table 1). One refers to soil quality and the following 2 questions have to be checked: (1) Does the option affect the acidification, contamination or salinity of soil, and soil erosion rates? (2) Does it lead to loss of available soil (e.g. through building or construction works) or increase the amount of usable soil (e.g. through land decontamination)? Those two questions were particularly relevant in post-industrialised zones and mountains and to a minor extent in coastal zones and on islands. Unfortunately, first activities for the European survey and the in-depth analysis in sensitive regions addressed mainly economic implications such as Gross Domestic Product and social aspects such as the unemployment.

Table 1. Overview on the environmental, social and economic impacts, separated according to the impact assessment guidelines of the European Commission (2005)

No.	Economic impacts	Social impacts	Environmental impacts
1	Competitiveness, trade and investment flows	Employment and labour markets	Air quality
2	Competition in the internal market	Standards and rights related to job quality	Water quality and resources
3	Operating costs and conduct of business	Social inclusion and protection of particular groups	Soil quality or resources
4	Administrative costs on businesses	Equality of treatment and opportunities, non – discrimination	The Climate
5	Property rights	Private and family life, personal data	Renewable or non-renewable resources
6	Innovation and research	Governance, participation, good administration, access to justice, media and ethics	Biodiversity, flora, fauna and landscapes
7	Consumers and households	Public health and safety	Land use
8	Specific regions or sectors	Crime terrorism and Security	Waste production / generation / recycling
9	Third countries and international relations	Access to and effects on social protection, health and educational systems	The likelihood or scale of environmental risks
10	Public authorities		Mobility (transport modes) and the use of energy
11	The macroeconomic environment		The environmental consequences of firms' activities
12			Animal and plant health, food and feed safety

Conclusions

Key problems in sensitive regions of the 25+2+2+1 European countries are addressed according to the recently released impact assessment guidelines. The E.U. impact assessment refers to 12 environmental, 9 social and 11 economic issues in which one is dealing with soil quality. Current SENSOR ex-ante evaluation of policy scenarios referred mainly to social and economic issues. Environmental issues are particularly checked in sensitive regions.

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References

European Commission (2005) Impact assessment guidelines. SEC 791 (Brussels), 48 pages
www.sensor-ip.org