

Muñoz-Rojas Morenés, J<sup>1</sup>. Gonzalez-Puente, M<sup>2</sup>. Cortines-Garcia, F<sup>3</sup> & J. Morrice<sup>1</sup>.

Mapping conflicts and synergies in the multi-functional and sustainable delivery of Ecosystem Services driven by policy and planning frameworks and regimes; the example of Scotland rural landscapes. *"Ecosystem Services: building informed policies to orient landscape dynamics"*. IALE 2013 European Congress-Manchester, 9<sup>th</sup>-12<sup>th</sup> September 2013; *"Changing European Landscapes: Landscape Ecology, local to global"*.

- <sup>1.</sup> The James Hutton Institute. Information and Computational Sciences Research Group. Craigiebuckler, Aberdeen. AB15 8QH. UK. [Jose.munoz-rojas@hutton.ac.uk](mailto:Jose.munoz-rojas@hutton.ac.uk).
- <sup>2.</sup> Institut de Ciència i Tecnologia Ambiental. Universitat Autònoma de Barcelona. 08193. Bellaterra (Barcelona). Spain. [marcgpunte@gmail.com](mailto:marcgpunte@gmail.com)
- <sup>3.</sup> Independent Researcher. Maria Auxiliadora 30. 11407. Jerez de la Frontera (Cadiz, Spain). [fcortines@yahoo.es](mailto:fcortines@yahoo.es)

Research in the potential of Ecosystem Services for landscape planning and policy making is considered a key asset to devise novel pathways towards more sustainable and multi-functional landscapes (de Groot *et al*, 2010). This has resulted in the strong relevance of new knowledge aimed at embedding Ecosystem Services within landscape planning and policy making (Harris & Tewdwr-Jones, 2010; Albert *et al*, 2013). A stronger emphasis is needed to develop interdisciplinary research to unravel the complex relationships among Ecosystem Functions and Services in rural landscapes, the bio-physical processes underpinning them and the political and planning frameworks and regimes that drive them. The complexity of this task implies developing novel research schemes that span spatial-temporal scales, disciplinary domains, political clusters, stakeholders and governance structures (Hein *et al*, 2006). As a first step, we propose to identify, characterize and map conflicts and synergies between policies and planning driving change in rural landscapes and the resulting Ecosystem Functions and Services. To empirically test the scientific and operational validity of this research framework, we applied it to two Scottish case-study areas representative of two archetypal European rural landscape types: peri-urban and deep-rural (Eupen *et al*, 2012). These are the Central Scotland Green Network (CSGN) and the Moray & Aberdeenshire Forest District (MAFD). In the CSGN, the main tensions and conflicts are between human-intensive interventions in rural landscapes and the political aims of promoting the conservation and sustainable management of these landscapes (CSGN, 2011). In the case of the MAFD, landscape conflicts include tensions between plans and policies promoting forest expansion for climate change mitigation and landscape connectivity and other tools promoting alternative provisioning Ecosystem Services (e.g. crops and timber) for the same areas (Muñoz-Rojas *et al*, 2012). The main problems encountered include: ambiguity in the language of planners and policy-makers; difficulty in achieving adequate levels of quality in the spatial representation of ecosystem functions and services and related political and planning drivers; the scarcity of real-world references in implementing spatially explicit multi-criteria assessments of policy and planning impacts on rural landscapes; and the institutional and socio-political complexity of the frameworks and regimes driving rural landscape change in Scotland. Pathways forward are suggested to overcome these barriers. Finally it is concluded that if a stronger degree of institutional coherence and coordination is achieved within these frameworks and regimes, then the objective of multi-functional sustainable development set for Scottish rural landscapes (Scottish Government, 2011) might be achievable. While mapping Ecosystem Services is far from being a magic wand for this purpose, it might certainly help in the process.

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