

Transition to the Green Economy: Using SEA to evaluate agri-environmental objectives and performance

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Abstract

Proposals specifically aimed at delivering environmental *benefits* are often exempt from assessment, despite evidence that they can be poorly thought-through and sometimes counter-productive. This is doubly true of agri-environmental schemes where local farm-scale actions are expected to generate large-area cumulative effects on soil and water quality, biodiversity or landscape. There is evidence that the benefits of such schemes have often been assumed rather than planned for, thus necessitating *ex-post* assessment to justify their continuance. This paper, based on analysis of 'landscape protection' under the Irish Rural Environmental Protection Scheme (REPS), argues the cogent need that such proposals be subject to assessment.

Introduction

Agri-environmental schemes (AESs) are green economic measures using payments to modify local farm-scale actions that expect to generate large-area cumulative effects on soil and water quality, biodiversity or landscape. Analysis shows that such schemes are inadequately monitored/audited, which suggests prior assumption that the benefits would automatically follow from the targeted financial outlay. In some cases, non-monitoring necessitated *ex-post* assessment to justify their continuance. Similarly, proposals of a financial nature are also often exempt (CEC, 2001), despite the fact that making financial resources available is recognised as the first step to creating the expected impacts (CEC, 2004).

This paper argues that AESs, especially those of nationwide character, should definitely be subject to SEA and cumulative effects methodologies during design and implementation. The Irish *Rural Environment Protection Scheme* (REPS) provided a retrospective case study of biodiversity, and the current proactive review of attempts to secure the projected landscape benefits refocused under REPS4 (Whelan et al, 2010).

Rural Environment Protection Scheme

REPS was introduced in 1994 in response to the strong legal imperative of EU Regulation 2078/92. Most Member States focused their schemes on localised *Environmentally Sensitive Areas*. However, REPS operated horizontally, with broadly standardised management options undertaken by any suitably qualified volunteer farmer (Emerson and Gillmor, 1999).¹ Its basic principle was that farmers could be compensated for lost opportunities and additional costs involved in meeting stricter environmental targets required by the scheme's *Good Farming Practice* guidelines. Being specifically designed to "*reward farming in an environmentally-friendly*

¹ However, there was some variability that made provision for unique management of any specific area.

manner" and "*improve the environment on existing farms*", the scheme clearly *intended* having (positive) impacts.

REPS has been considered a *cornerstone* in developing positive aspects of the agriculture-environment (Hammell, 2001), but initially its effects were un-monitored and *uptake* by farmers became the proxy indicator for success. The EU Commission expressed concerns, initially over the assumed benefits to biodiversity and a lack of justification of conservation objectives. Therefore, Ireland basically had to reconstruct a biodiversity baseline in order to retrofit evidence for the benefits (Aughney and Gormally, 2002; Feehan et al, 2002). Regulation 2078 and REPS also referred to *conserving the landscape*, but this only became a serious focus recently. Once again, no landscape baseline had been established in advance and benefits were assumed to flow from uptake (O'Leary et al, 2005). Areas where REPS is proven to have worked include maintenance of some landscape features - under REPS3/4, farmers undertook to plant/rejuvenate over 10,000km of hedgerow (the largest planting in >200 years) and maintain >3,000km of stonewall network in the west (Boyle, 2009). REPS was also instrumental in protecting both known and previously unrecorded archaeological features (Sullivan and Kennedy, 1998).

However, failings include lack of clarity of REPS objectives - which made monitoring difficult since it was not entirely clear what exactly the scheme hoped to achieve. Furthermore, excessive paperwork, lack of freedom to farm adaptively, 'farming the grant and not the farm', and a top-down approach, all fostered a sense of lack of ownership (O'Brien, 2009). REPS has failed to attract the more intensive farmers - Galway (generally unsuitable for tillage - Lafferty et al, 1999) had 11% participation in 2008, while Kildare (highly suitable) had 1% (DAF, 2008).

Strategic Environmental Assessment and landscape

EU Directive 2001/42/EC (CEC, 2001) established the framework for SEA for 'certain' plans and programmes, particularly those providing a possible consent framework for project-level assessment (EIA). It applies to several sectors with potentially large-scale and truly national impacts, including *agriculture*, forestry and land-use planning. The definition of *plans* or *programmes* is not precise, but the directive tries to see beyond labels and look at the operational context - and requires that relevant proposals be screened. It reinforces Article 6(3) of the Habitats Directive 92/43/EEC (CEC, 1992) and specifically applies to proposals that might (negatively) affect Natura 2000 sites (Article 6):

"those relating to any areas of particular environmental importance such as areas designated under the Birds and Habitats Directive" .

However, it excludes conservation management plans, specifically including those for Natura 2000 sites. Ironically, the only proposals *deliberately designed to have an impact* on the environment are not assessed - presumably on the assumption that any proposal intended for good *will* prove beneficial. There is worldwide evidence of management plans that have been counter-productive; devised by conservation agencies that failed to understand the forces that had shaped and maintained the environmental components of interest. Furthermore, where corrective action was taken, this often involved going back to the land-users for guidance. Two-thirds of

the 40,000ha Burren region was designated as *Special Areas of Conservation (SACs)*, with what the land-users felt was inadequate consultation. Again without consultation, REPS subsequently introduced obligatory support measures (O'Rourke, 2005) that the region's agri-environmental advisory group consider inappropriate to either SAC conservation objectives or maintaining this unique proposed World Heritage Landscape (BurrenLife, 2010; UNESCO, 2010).

Fauna, flora and landscape are clearly identified in the impact assessment directives as aspects of the EU definition of the environment, with the SEA Directive arguably providing stronger emphasis by the inclusion of *biodiversity* and the identification of *landscape* as a stand-alone receptor treated more or less as an 'interaction' between other factors (CEC, 2001):

"the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors".

Pragmatically, landscape is often considered as being of less immediate concern than environmental priorities such as pollution-control, biodiversity loss and climate change. This is particularly true of agri-environment schemes where landscape considerations are rarely uppermost in the minds of either applicants or their advisers.

Should REPS have been subjected to SEA?

In the EU, screening for SEA is the proponent's responsibility, and can hinge on their definition of *plan* or *programme*. Controversially, the Irish National Development Plan (NDP) 2007-13 (Govt. Ireland, 2007) was not subjected to SEA since the government argued that it was really 'policy'. The government recognises REPS as a *programme* but, deriving authority from 2001/42/EC, equated it with Natura 2000 management plans to argue that SEA was not needed:

"as Natura 2000 and much of the Rural Environment Protection Scheme (REPS) are directly connected with and necessary for the management of European site(s) the clear intent is that SEA in relation to a programme such as Natura 2000 or REPS, in whole or in part, is not a requirement" (DAF, 2006).

This opinion was convenient, given that the SEA Directive had been transposed before introduction of the revised REPS4 package in 2007, but is arguably erroneous for the following reasons:

- REPS was a mechanism to implement Regulation 2078/92 and is therefore clearly not exempt by virtue of being a *policy*
- the government acknowledge that it is a *programme*, and it must therefore be screened for SEA
- it has clear *objectives* justified under 2078/92, including (but not limited to) the protection of Natura 2000 sites

- plans and programmes for the *management* of Natura 2000 sites are exempt, but 2001/42/EC specifically requires SEA for any others with a potential *impact* on Natura sites
- even plans and programmes devised to achieve positive benefits should be assessed and monitored to help ensure an appropriate focus
- the majority of Ireland's Natura 2000 sites are outside State ownership and frequently occur on farmland, making REPS the most obvious nationwide vehicle for coordinating support for their conservation objectives.
- variation in responses of individual farmers means that even a coherent package of REPS protection measures is no guarantee of effective response
- one-size-fits-all standardised REPS measures cannot match the possibly unique conservation objectives of individual Natura 2000 sites
- the SEA Directive calls for assessment of cumulative and transboundary impacts, while refocusing attention on potential impacts of a spectrum of plans and programmes on landscape-related issues
- protection and management of landscape is one main objective identified in REPS, but essential *landscape character elements* vary considerably across the jurisdiction and can be transboundary in nature
- Ireland did not initially monitor REPS and arguably still has no monitoring for landscape impacts, but application of 2001/42/EC should ensure that monitoring is instigated
- it is possible to identify objectives, targets and indicators relating to both biodiversity and landscape protection aspirations of REPS, thereby making it amenable to SEA.

The Agri-environmental Future

REPS4 is a lost opportunity since retrofit SEA is not good practice. Furthermore, economic recession precipitated radical changes in Irish farm supports in July 2009, including an immediate ban on REPS entrants. REPS will be replaced by a "*cash-limited*" scheme focusing on "*tangible environmental benefits*" (IFJ, 2009). This suggests that landscape has slipped in environmental priority, possibly because it has yet to achieve promised statutory protection. In addition, the reality of financial limitations is that farmers are likely to concern themselves more about payments than their less-tangible role as countryside custodians. For all these reasons the new 'son-of-REPS' should have SEA incorporated from the beginning.

The remaining analysis utilised Donnelly et al's (2006) decision support framework to establish landscape-related objectives, targets and indicators linking REPS to SEA. The overall objectives of REPS4 were to "*promote ways of using agricultural land which are compatible with the protection and improvement of [.....] the landscape*

and its features" (DAFF, 2007). Furthermore, each subsidiary measure had identifiable objectives, and it is possible to ascribe possible targets and indicators from analysis of REPS documentation or other existing Irish practice (Table 1). Although basically relevant, the phraseology employed needs tightening to focus it for SEA, since experience shows that most landscape objectives are set too broadly to be practically relevant (Nelson and Boden, 2005). As a starting point, landscape indicators should be based on work already undertaken at local authority level, such as Landscape Character Assessments (LCAs). Such assessments give fine-grained detail that will enable 'son-of-REPS' to deliver locally appropriate landscape benefits.

Landscape objectives	Targets	Indicators
Protect and maintain landscape character of area under agri-environment scheme	Ensure activities undertaken are not detrimental to local landscape character	<ul style="list-style-type: none"> • Number of REPS farms in each townland • Area of REPS farms in relation to total agricultural area participating in positive landscape-related measures
Optimize aesthetic and biodiversity benefits by linking landscape patches	Integration of woodland within farm landscape	<ul style="list-style-type: none"> • Area of established farm woodland/traditional orchard on REPS farms • Reduction in forest cover fragmentation as measured by conventional fragmentation metrics
Maintain/protect archaeological sites/features on farms	No further removal/damage to archaeological features on farms	<ul style="list-style-type: none"> • Number of new archaeological sites or monuments identified under REPS • Number of archaeological sites and features protected under REPS
Conserve traditional farm buildings contributing to local landscape character	Increase uptake for repairing traditional farm buildings	<ul style="list-style-type: none"> • Uptake of Heritage Council farm building grants
Protect and maintain waterbodies	Measures to maintain/enhance waterbodies	<ul style="list-style-type: none"> • Number of rivers, lakes and other waterbodies maintained and protected under REPS
Conserve habitat diversity on farms	Monitoring to prevent habitat degradation	<ul style="list-style-type: none"> • Total area of retained/enhanced wildlife habitats under REPS • Average area of wildlife habitat per REPS farm • Area of LINNET habitats per REPS farm
Create new habitats on farms	Increase of habitats on farmland	<ul style="list-style-type: none"> • Area of newly created habitats under REPS
Adopt appropriate heritage management activities on farms	Inculcate heritage awareness and adoption of relevant best practice farming	<ul style="list-style-type: none"> • Number of farmers that carry out sanctioned activities to manage heritage features • Attendance at specialist environment advisory meetings
Protect/enhance farmyard wildlife	Maintain/enhance wildlife on farms	<ul style="list-style-type: none"> • Number of farmers installing bird/bat boxes
Conserve historic farmland boundaries contributing to local landscape character	Non-removal of hedgerows/stonewalls	<ul style="list-style-type: none"> • Length of maintained/enhanced hedgerows/stonewalls in each townland (km) • Length of new hedgerows (km)
Train/educate farmers in accordance with European Landscape Convention	Greater understanding and appreciation of landscape among farmers	<ul style="list-style-type: none"> • 'Landscape' aspect added to training in environmentally-friendly farming practices • Number of farm walks per year

Table 1: SEA landscape objectives identified/interpreted from REPS documentation, together with relevant targets and indicators

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