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The Irish Rural Environmental Protection Scheme and lack of Strategic Environmental Assessment

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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.

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Introduction

A simplistic definition of Strategic Environmental Assessment (SEA) could be 'the application of the impact assessment philosophy generally legislated for at project level to the three higher planning levels of policy, programmes and plans'. Although agriculture is one sector within the scope of the EU's SEA Directive 2001/42/EC (CEC 2001), the focus of attention following its introduction has largely been in the areas of spatial and land-use planning, and transport planning (Curran et al, 1998; Russell, 1999; Fischer, 2002; Short et al, 2004; Fischer, 2004). In the Republic of Ireland (henceforth 'Ireland'), specific SEA guidance was provided prior to transposition of the Directive, but only in relation to land-use planning (DEHLG 2004). This is partly due to the long-established nature of agriculture practices in many jurisdictions, where dramatic policy reform is unusual, embedded policies are not retrospectively assessed, and change at the operational (farm) level is incremental. One conceptual problem in addressing the impact of agriculture worldwide is in how to assess and regulate the cumulative effect of individual farm-scale actions in the absence of major policy shifts that could themselves be assessed. In such situations in the EU formal impact assessment is a fairly weak mechanism largely associated with consent procedures for specified project categories under the EIA Directive 85/337/EEC (CEC 1985 - as amended). Some remedy is available through River Basin District (RBD) management demands under the Water Framework Directive 2000/60/EC (WFD - CEC 2000), or through increasing farm-level application of waste management licensing. However, there is a conceptual need to approach cumulative farm impacts from an Environmental Management System (EMS) perspective where farmer actions are assessed in relation to locally relevant management plans. This paper recognises this imbalance in terms of all aspects of agriculture, but more specifically addresses the lost opportunity of failing to apply SEA to the Irish *Rural Environmental Protection Scheme* (REPS) in support of agri-environmental objectives mandated by EU Regulation 2078/92.

A major objective of impact assessment procedures worldwide is to minimise negative impacts, although this *control* paradigm frequently obscures possibilities for enhancing positive effects. Similarly, 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. Analysis shows that such schemes are inadequately

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monitored/audited, which suggests prior assumption that the benefits would automatically follow from the targeted financial outlay. Ironically, proposals of a financial nature are also often exempt from assessment (CEC, 2001), despite the fact that making financial resources available is recognised as the first step to creating the ultimate impacts (CEC, 2004).

This is doubly true of agri-environmental schemes (AESs) where local farm-scale actions are expected to generate large-area cumulative effects on soil and water quality, biodiversity or landscape. AESs are particularly challenging to evaluate since biological systems are dynamic, and habitat characteristics and quality vary from farm to farm. Furthermore, the impacts of intervention may not be observable for several years and are in any case susceptible to extraneous influences such as weather, natural population fluctuations and neighbouring land management (Keenleyside, 2008). In some cases, non-monitoring has necessitated *ex-post* assessment to justify their continuance.

The four incarnations of REPS reflected several high-level policy objectives, primarily concerning environmental protection. Like the current Irish National Development Plan (NDP), the scheme was not subjected to SEA - despite tacit government acknowledgement that it was a *programme* as understood under 2001/42/EC. This paper argues the cogent need that AESs (especially those of nationwide character) should definitely be subject to SEA and cumulative effects methodologies during design and implementation. An EU demand to validate the benefits of REPS provided both a retrospective case study of biodiversity assessment and the ongoing proactive review of attempts to secure the projected landscape benefits refocused under REPS4 (Whelan et al, *in preparation*).

Rural Environment Protection Scheme

REPS was introduced in 1994 in response to the strong legal imperative of Regulation 2078/92. Most Member States focused their schemes on localised *Environmentally Sensitive Areas (ESAs)*. The Republic of Ireland experimented with the Slieve Blooms and Slyne Head ASEs, but (after obtaining EU derogation) abandoned them in favour of the nationwide REPS approach. REPS operated horizontally, with broadly standardised management options undertaken by any suitably qualified volunteer farmer (Emerson and Gillmor, 1999) - albeit with some limited variability to accommodate unique management needs for specific areas.

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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 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 assumption it would benefit biodiversity and over a lack of justification for conservation objectives. Therefore, Ireland basically had to reconstruct a biodiversity baseline in order to retrieve 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 over 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 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). Unfortunately, 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). Furthermore, its general one-size-fits-all solutions failed to sufficiently address regional variation - as, for example in the 40,000ha Burren area (north Co. Clare), where pollution control through animal housing counteracted the real need to get animals back to upland winterage (BurrenLife, 2010a).

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SEA, Rural Land-use and REPS

Europe has a wealth of natural and cultural heritage features, and a unique array of landscapes that contribute significantly to European identity, sense of place and quality of lives. That also contributes to Europe's pole position in global tourism interest, where it is the world's top tourism destination, generating some 20 million jobs and producing 12% of European GDP (Ecosystems, 2006). Therefore, there are economic as well as conservation incentives to assess the impact of any potential changes to these features.

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 2001/42/EC (CEC, 2001) 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: *"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.

Directive 2001/42/EC 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 to 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 Directives"*.

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However, it excludes conservation management plans, and specifically 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. However, conservation cannot be obtained simply by designation, effective management must follow, and 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. A recent Irish NGO report highlighted systematic failures in procedures relating to special nature conservation sites, including the lack of assessment of potential ecological impacts associated with planning applications (An Taisce, 2007). Furthermore, corrective action taken has often involved going back to the land-users for guidance. Two-thirds of the 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 research project considers inappropriate to either the SAC conservation objectives or maintaining this proposed World Heritage Landscape (BurrenLife, 2010b; UNESCO, 2010). It is unlikely that an SEA approach would have deemed a 'one-size-fits-all' attitude appropriate (Fischer, 2005).

There are few references to agriculture-related SEA in the literature, even though agriculture accounts for approx 40% of EU legislation. An attempt was made in 1999 to devise SEA methodology to assess environmental impacts of UK agricultural policy (Tzilivakis et al, 1999). A subsequent review of 81 statutory and non-statutory plans/programmes from different sectors that might be subject to formal SEA in the UK included agricultural planning (RSPB et al, 2002), and an argument was made for applying SEA to gAEP, Germany's preliminary agrarian structure planning (Schmidt et al, 2005). This limited coverage arguably relates to the complexity of agricultural issues as perceived in the EU (Kumric and Franic, 2005), although the scarcity of direct points of impact assessment leverage must also be taken into account (i.e. most actions with cumulative effects are not immediately dependent upon permitting).

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In the EU, screening for SEA is the proponent's responsibility, and can hinge on their definition of *plan* or *programme*. The Irish National Development Plan 2007-13 (Govt. Ireland, 2007) contains analysis of the environmental situation in the country, but was not subjected to SEA since the government argued that it constituted 'policy'. This decision was controversial, especially since Ireland had a positive reputation for having 'proofed' previous NDPs supported by EU Structural Funds (Bradley, 1996). The government did recognise 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,

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- 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.

Assessing REPS4 was probably a lost opportunity since retrofit SEA is not good practice. However, during July 2009 economic recession precipitated radical changes in Irish farm supports, including an immediate ban on REPS entrants. REPS is being replaced by a "*cash-limited*" scheme focusing on "*tangible environmental benefits*" (IFJ, 2009). That phrase suggests that landscape (the primary focus of this project) has slipped in environmental priority, possibly because it had yet to achieve promised statutory protection. In addition, the reality of financial limitations is that farmers are more likely to concern themselves 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 therefore 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*" (DAF, 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 landscape objectives are generally set too broadly to be practically relevant (Nelson and Boden, 2005). In particular, it is clear that the term 'landscape' has been liberally used throughout REPS documentation

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with little regard to its multiple interpretations or specific relationship to individual objectives (Whelan et al, *in preparation*). As a starting point, landscape indicators should be based on work already undertaken at local planning authority level - such as Landscape Character Assessments (LCAs) which provide the fine-grained detail that would enable 'son-of-REPS' to deliver locally appropriate landscape benefits. If only in respect to this one issue, there is scope to harmonise REPS with Irish County Development Plans. Linkage to land-use plans that are already subject to SEA would raise the bar for both participants since REPS plans would benefit from the application of SEA methodology and land-use planners would have greater appreciation of issues of concern to them (such as landscape character) that operate across administrative boundaries.

Insert table 1 here

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

Using SEA to Harmonise Policy Objectives

There are possibilities for Member States to harmonise and connect different environmental assessment procedures that are all trying to get to the one place. The purpose of harmonisation is not to unify the procedures, but rather to eliminate contradicting evaluations and decrease the risk of administrative duplication. Kumric and Franic (2005) argue that agriculture is one of the most demanding sectors in the process of harmonisation with EU standards, but lack of harmony between policies and legal frameworks can be significantly solved through an SEA framework embedded in a country's decision-making process (Onyango and Namango, 2005). This section looks at possible harmonisation between REPS farm plans and River Basin Management (RBM) plans prepared under the WFD. The comparison is apposite since RBM plans have been prepared for all RBDs on the island of Ireland, and each has been subject to SEA – the Eastern RBD being an example (RPS, 2007).

Both REPS and RBM plans seek to clarify and deliver on environmental objectives, and both require the identification and mapping of protected areas. These provisions relate to the need for environmental protection objectives to be contained in the SEA environmental report (Annex 1 5(e) of the SEA Directive). The relevant objectives of REPS4 (DAF, 2007) were:

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- 'to promote
 - ways of using agricultural land which are compatible with the protection and improvement of the environment, biodiversity, the landscape and its features, climate change, natural resources, water quality, the soil and genetic diversity,
 - environmentally-favourable farming systems,
 - conservation of high nature-value farmed environments which are under threat,
 - upkeep of historical features on agricultural land, and
 - use of environmental planning in farming practice.
- to protect against land abandonment.
- to sustain the social fabric in rural communities.
- to contribute to positive environmental management of farmed NATURA 2000 sites'

The overall objective of the WFD is to 'establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which:

- prevents further deterioration,
- promotes sustainable water use,
- aims at enhanced protection and improvement of the aquatic environment ensures the progressive reduction of pollution groundwater and prevents its further pollution and,
- contributes to mitigating the effects of floods and droughts'.

Both sets of objectives fall under the umbrella objective of the SEA Directive – providing for a high level of protection of the environment (CEC, 2001). Table 2 compares plans for RBM and REPS farms, and identifies their relationships to requirements of Directive 2001/42/EC.

Insert table 2 here**Table 2: Comparison of requirements for River basin District Management and REPS Plans and their identified relationships with SEA**

The characteristics of both plans have to be 'recorded', and this equates to the preparation of an environmental report under the terms of SEA. The impacts of human activity and any significant pressures on water are acknowledged in RBM plans, and this relates to requirement 5(f) for an SEA environmental report. In contrast, REPS plans do not require identification of significant pressures on agriculture, although such identification would not only make those plans more comparable with other procedures, but would also highlight the need to assess the impacts of the plan. In a parallel with Article 10 of the SEA Directive, RBM plans map their monitoring networks. REPS plans have never contained specific monitoring provisions, although there was scope to review plans from previous versions of the scheme to monitor changes in hedgerow and stonewall length or the creation of new habitats. There is a public participation element relating to consequent changes to RBM plans, and this can be equated to the public participation element in SEA decision-making. In contrast, REPS has not provided for any public involvement over its implementation, whether by the tax-paying public or the affected farmers. Arguably, introduction of such an element could have helped iron out initial conflicts, encouraged greater farmer 'ownership' of the scheme and resulted in much more in-depth planning with fully-functioning monitoring procedures.

SEA-linked REPS and Cumulative Effects Assessment

Significant cumulative effects can result as the summation of individually insignificant effects from several developments on a particular receptor, or as the combined effect of individual impacts of a strategic action (Thérivel, 2004). The Irish EPA (2008) describes them as: *"effects on the environment that result from incremental changes caused by the strategic action together with other past, present and reasonably foreseeable future action. These effects can result from individually minor but collectively significant actions taking place over time or space"*. This indirectly acknowledges that their cumulation can be vertical (temporal) as well as both horizontal (geographical) in nature. Agricultural land-use change tends to have immediate impacts, but the incremental effects of day-to-day agricultural

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practices are historically the largest force for cumulative environmental impacts, and are administratively the most difficult to address.

The concept of cumulative effects assessment is best developed in North America, but has not been formalised in the EU and is practically nonexistent in Ireland. Currently the EU's equivalent legislative basis operates through the individual and collective actions of the Birds/Habitats, EIA, SEA and Water Framework Directives - all of which are of major relevance to agricultural activities. *Appropriate Assessment* under the Birds/Habitats Directives contributes to cumulative assessment in respect of the receptor species or habitats in question, but generally has a narrow focus and limited geographical footprint. Although the EIA directive calls for consideration of cumulative effects during project-level assessments, that also is largely location-specific. Therefore, SEA is widely considered the better vehicle for this purpose and Directive 2001/42/EC does give special regard to the cumulative nature of potential environmental effects. The problem is that environmental components do not respect administrative boundaries and even SEA can be constrained by unrealistic political envelopes. As previously discussed, RBD boards (WFD) do have bigger horizons, as does integrated coastal zone management (ICZM) - the lead role in which in Ireland has been transferred from local planning authorities to the Department of Agriculture, Fisheries and Food (DAFF). However, these are not national in vision and SEA-linked REP is therefore an attractive nationwide administrative model for tackling several cumulative effects as it straddles river basin districts and landscape character areas.

The assessment of cumulative effects within REPS is challenging given the range of options and measures available under the scheme, but would prove extremely beneficial. Focusing on landscape, several different options and measures could have a cumulative effect and it is important that these are cumulatively beneficial rather than detrimental to landscape character. Having identified and attempted to categorise the multiple meanings of 'landscape' employed in REPS documentation, a matrix approach is being used to investigate cumulative effects that could be assessed under the umbrella of son-of-REPS (Scott & Marsden, 2003). Landscape related measures and/or options have been selected from the scheme, and a framework of SEA receptors is being used to help identify impacts (Table 3). The next

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phases of the research will focus on the level of impacts and the scale over which significant variation in landscape intervention can be determined.

Conclusion

Investigating the history of REPS has once again highlighted the necessity for applying assessment procedures to proposals specifically promising environmental benefits. REPS was a perfect example of formal compliance with EU legislation rather than actual compliance with its spirit/intent, and drew criticism from the EU Commission for (among other things) its poorly justified objectives and lack of monitoring. Applying an SEA approach to this nationwide scheme would have done much to focus its objectives and improve delivery on them, and would have made monitoring obligatory. REPS (or, more realistically its son-of-REPS replacement) also has greater capacity to connect directly with WFD requirements, as well as to provide a nationwide basis for assessing and mitigating a range of cumulative effects while still retaining the ability to adjust to local focus. REPS4 is a lost opportunity, however it is imperative that the follow-up scheme is subjected to SEA from inception to ensure that it is better thought-through and has less risk of being counter-productive.

Insert table 3 here

Table 3: Use of an SEA matrix approach to identify cumulative effects within REPS (√ = impact), with an example of accompanying text relating to the first option ' Maintain farm and field boundaries'.

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