Gaining Environmental Benefits from Positive Land Management: Practical Experience from the North Kent Marshes

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GAINING ENVIRONMENTAL BENEFITS FROM POSITIVE LAND MANAGEMENT: PRACTICAL EXPERIENCE FROM THE NORTH KENT MARSHES

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Abstract

Whilst Environmental Cross Compliance may be one way of reducing environmental disbenefits or negative externalities, it is argued that a better way of providing environmental benefits or positive externalities is to clarify the objectives of environmental policy and to link payments more directly to the achievement of those objectives. Experience at Elmley shows how this has been achieved in the UK. The 1200 ha Elmley Estate is managed both as a working farm and for wildlife as the Elmley National Nature Reserve. The whole estate falls within the North Kent Marshes Environmentally Sensitive Area. The Estate now supports a greater number of breeding waders than any other lowland wet grassland site in England. This growth in wildlife has been achieved through the positive management of water levels and the grazing of sheep and cattle together with other land management techniques. It provides a successful example of practical and integrated farm management producing prime quality store livestock and greatly increased wildlife.

Introduction

As I write this paper in February 2002 it is almost exactly a year since the start of the UK foot and mouth epidemic. The foot and mouth crisis dominated all countryside thinking and action for a six-month period. As a farmer whose dual products are both livestock *and* countryside goods, I watched with growing dismay as the media portrayed graphic and emotive images of burning livestock in a countryside closed to visitors. Never were our urban customers – consumers of both red meat and the countryside – more effectively turned away from both of our products.

The implications of the foot and mouth epidemic are still being felt through the UK farming industry but one consequence is that the connection between grazing livestock – sheep and cattle – and the countryside so beloved by the visitor and the tourist was for

the first time fully understood. A second consequence is the cathartic changes likely to come about due to the restructuring of the farming industry and its policy drivers. This is seen by many as an opportunity to bring UK farming on to a more sustainable basis where food production, rural social cohesion and environmental enhancement are jointly promoted.

I congratulate the organisers of this Congress on their theme:

- Feed the World
- Please the Consumer
- Maintain the Environment

Three management aims which as a farmer I am more than happy to use for my own business. Three objectives in which, at present due to the implications of EU agricultural policy, the farmer is failing.

As a farmer, I try to follow a philosophy and practice of farming that is integrated. I am sure this Congress will be considered a success if the delegates leave Wageninen feeling that the three themes can be integrated on the one farm and not that the three aspects can be placed in three neat little boxes and left to three different elements of the agricultural industry to perform. Integration to me seems to be the best method of achieving this objective.

Our Farm

Perhaps it might be appropriate to say a word here about our own farm and piece of the countryside – and I say our own through a sense of identity and participation rather than to promote personal ownership. Our farmland in South East England was reclaimed from the sea by the efforts of farmers and landowners and as flat expansive marshes are highly prized both for agricultural productivity and, more recently, for nature conservation interest.

Now that might sound as if I am describing a polder in the Netherlands and indeed our soils are deep alluvial heavy silty clays that have more similarities with those in the north of Friesland and Groningen than those traditionally associated with Holland.

Our marshes form a remote open landscape with an elusive but nevertheless powerful charm. For those that know the Netherlands well, the best similarity I can come up with is the landscape of the polders fronting the Waddenzee. The flat horizon leads to the "big sky" of the marshes, which is so appreciated, by artists and photographers. A winter landscape that plays host to, not the barnacle geese of the butendyks, but the widgeon in numbers exceeding 20,000 on our farm alone. For those who wish for a detailed description of our 1200-hectare Elmley Estate and its wildlife, I enclose one of our visitor leaflets at the end of this paper.

The Role of Farmers

As this presentation is in the environmental section of the Congress perhaps I can say something about the countryside and to the concept of farmers pivotal role in the management of the countryside. For whilst many may care *about* the countryside, by and large, it is only farmers, landowners and foresters who have the ability to care *for* that huge national asset. For whilst the countryside might be largely privately owned and managed, it is at the same time a national resource. Moreover as a national asset and a resource, it needs to be used and not preserved as a museum as some might have us believe.

As farmers we are fortunate to be associated with an industry that, together with forestry, has the unique ability to provide positive environmental goods. Whilst all industries, including farming, have an increasing requirement to clean up their act and prevent pollution of earth, air and water, this can be considered to be the removal of negative environmental disbenefits. I cannot think of any other industry that can provide *positive* environmental benefits, or as an economist would call them environmental goods, in the way that farming can. What a huge opportunity that is for the farming industry. I do hope that my farming colleagues and their political leaders grasp the opportunity.

For if management and conservation of the environment really is to be a major element of the new multi-functional role for farmers then the approach of positive management has to be the way forward. For whilst one can "preserve" an inanimate object, a dynamic biological system such as the environment can only be conserved by positive management. Indeed whilst one can "protect the environment" how much more effective it is to protect the biological and agricultural systems that originally created and now maintain the environment.

Which brings me back to the theme of this session – "Farming and Cross-compliance". Whilst it is for academics and policy makers to explain to this Congress exactly what is meant by the term cross-compliance, to me it seems a very slippery concept. As a great English writer Lewis Carroll famously wrote "Words can mean what you want them to mean", so it appears with cross-compliance. As a farmer, who together with the rest of his farming colleagues, is in receipt of a great deal of public money as production subsidy it is of course entirely right and proper for society to put whatever environmental restrictions it feels appropriate on those in receipt of public funds. But whilst cross-compliance has a vital role in protecting aspects of environmental concern, there is little that cross-compliance, as it is presently understood, can do in providing *positive* environmental goods.

Most commentators suggest that a likely future policy direction for a reformed CAP is for agriculture to have a multi-functional role where the provision of positive environmental goods is a vital part of the new role for agriculture. The thrust of this paper is to suggest that:

- Environmental goods can best be provided by positive land management.
- Farmers are the group best able to provide these goods;
- The objectives for schemes to provide environmental benefits have to be clear.

Let me deal with this last bullet point. For farmers and landowners to be able to turn policy theory into practice, policies and financial incentives need to be developed to give land managers clear signals and objectives. Management is all about decision-making and thus objectives must be clear and well defined. The muddle that can result through

policy objectives being less than clear was, I thought, well expressed by the retired MAFF Permanent Secretary, Sir Michael Franklin in the passage of his evidence that was quoted in the recent House of Lords Select Committee Report on CAP Reform:

> *"Farmers now have two functions which they should or could fulfil; that of producing and that of protecting the environment. This distinction is fundamental. There will continue to be muddle and confusion – and a less than optimum use of resources – unless those two functions are clearly separated conceptually. The fact that they can be performed at the same time and in the same place by the same farmer does not alter the necessity to identify clearly which objective is being pursued."*

Our Farm as a Nature Reserve

Today I write as a farmer who has responsibility for the agricultural and environmental management of some 1200 hectares of coastal grazing marshes known to farmers as the Elmley Estate and to conservationists as the Elmley National Nature Reserve (NNR). Our agricultural products are suckler calves and store lambs whilst those of the environment are the wintering, the passage and the breeding birds and the terrestrial and aquatic invertebrates and flora. As the farm is now an NNR, the environmental interests clearly have primacy. However these nature conservation objectives are wholly dependant on the management of a farming system. And a farming system that really works and makes sense in practical farming terms. If it fails, much of the wildlife interest will be lost.

Like most enterprises, Elmley has a fair bit of history. To set the scene perhaps I can take you back some twenty years or so. In the late 1970's I was a keen young farmer suffering from a double dose of parental death duties and Capital Transfer Tax liabilities, busy draining and ploughing our fertile alluvial soils on Romney Marsh and the North Kent Marshes. In those days the national agricultural policy direction was very clear – increase production. Government White Papers – "Farming and the Nation" and "Food from our own Resources" had set the expansionist tone and direction for the farming industry. Drainage grants of 60% topped up by FEOGA grants of 10%, allied to payments based on standard costs meant that conversion of environmentally interesting but agriculturally unproductive grassland to rewarding arable, was hugely profitable to a

farmer. Importantly, at that time, there was an attitudinal approach that the improvement of marginal land to productive agriculture was wanted by a grateful nation and society as a whole.

At the same time there was a growing concern by environmentalists that these agricultural changes, fuelled by the UK's accession into the European Economic Community and the Common Agricultural Policy, were very damaging to nature conservation interests. But the environment at that time was a minority, if not an esoteric interest.

And then in the late 1970's along came an organisation called the Nature Conservancy Council (NCC) flexing its then small muscle against the seemingly relentless tide of economic imperatives, who were swift to place the terms of the Wildlife & Countryside Act with its compensation for income foregone on to the table. But to me, the conditions of the Nature Conservancy Council's proposed agreement were entirely negative. If we were to stop draining, ploughing and fertilising, together with all other farming operations, then income-foregone payments would flow our way. I picked up my pen and one paragraph of my letter of response is still seared on my mind. I quote from my letter to the NCC of June 1981 –

> "*I feel that the entire attitude of your proposed management agreement, in the way it is framed, is entirely negative. As I said to you on the phone, if we are to be faced with this fait accompli of the requisitioning of the total acreage of our marshes, I would prefer to play an active co-operating role in the management of the marshes (for a new objective) rather than the negative one that you have mapped out for us in your proposed management agreement".*

This put a number of cats amongst a large flock of pigeons. The concept of a farmer managing his land for environmental objectives (heretical as it was then to some ecologists and to many farmers) was picked up with powerful enthusiasm by the then House of Commons Select Committee on the Environment who issued a Report in 1984 on the "Operation and Effectiveness of the Wildlife and Countryside Act". I was summoned as a farmer to give evidence to this august body following in the wake of the

Department of Environment Minister and his officials, and Ministers and senior officials from MAFF, the NCC, the Countryside Commission, together with just about every environmental organisation. Amazingly and somewhat embarrassingly, the first issue that the Select Committee chose to highlight in their Report was the role of farmers and the first page of their Report was to quote approvingly my letter highlighted above.

So not only had I thrown down the gauntlet for the positive management of land for environmental objectives by farmers, but the Select Committee had picked it up and mounted it for public display. The challenge was on for me.

Conservation Management

Now let me tell you a little about Elmley. The estate is made up of 1200 hectares of flat alluvial marshes, intersected with ditches that serve as our wet fences (and in nature conservation terms are our upside down hedges). I enclose an Elmley NNR leaflet as an appendix to this paper.

The marshes are agrostis/fescue pastures and if undrained can be waterlogged in winter and paradoxically dry out in summer as our annual rainfall is usually below 500mm. To explain – the grass roots are killed by winter waterlogging and the plants spend the spring and early summer growing new roots chasing down the receding water table. Eventually in early to mid-summer the grassland plants give up the unequal struggle and throw up seed heads on unpalatable lignified stems. And that is the end of useful vegetative growth for another season. Let me impress upon you that the North Kent Marshes are wetlands that seasonally dry out. This is a key natural process and has important implications both for the agricultural grazing and for the nature conservation interest.

Firstly the grazing – the Elmley Marshes have neither the herbage quality nor quantity to fatten and finish livestock. They are store marshes. Hence any cattle and sheep grazing these marshes have to be part of an integrated livestock system and be moved elsewhere for further finishing for the butcher. Basically Elmley can be thought of as a hill farm sited below sea level.

Now on to the wildlife interest. Our nature conservation management is determined by a Management Plan, which is updated on a regular basis. There are seven areas of nature conservation interest – the wintering, passage and breeding birds, the aquatic and terrestrial flora and the aquatic and terrestrial invertebrates. And of course the whole of these seven areas of interest and their biological interaction is very much greater than the sum of the parts. Yet promoting management for any one of these special nature conservation interests can so easily harm the others.

But the breeding waders (weidevogels) are different. Broadly speaking – getting the management and habitat right for the breeding waders, means that it won't be far wrong for most of the other wildlife interests. Scientists consider the breeding waders to be excellent indicators as the other nature conservation interests are satisfied by the regime of seasonal flooding. So it is little surprise that the breeding waders and their management command so much detailed attention in the management of Elmley. I am told that Elmley now holds the largest concentration of breeding waders in lowland UK. The Royal Society for the Protection of Birds, who are red hot on the monitoring of the bird numbers and the bird interest, consider that the breeding wader numbers at Elmley have risen tenfold over the last twenty years.

Looking back now with the huge benefits of hindsight, and twenty years experience of the site, I have come to the conclusion that there are five main factors of production – none of which are associated with cross-compliance - that determine breeding wader success at Elmley. In order of importance these might be summarised as:

- The livestock grazing management necessary to create the optimum grassland sward in April, May and June, coupled with the essential ability to remove livestock at will from wader breeding areas at this time.
- The availability and control of water to produce the drying muddy marsh rill margins so necessary as feeding areas for the wader chicks.
- The rills and creek relics that provide the ideal micro-topography. This variation in soil surface height across each field is vital for increasing and maintaining a mosaic of wet and dry areas. This ensures that, throughout the drying period of

late spring, there are always areas which are in optimum condition for invertebrates, the staple food source for wader chicks.

- The slow grass growth in spring that can be so typical of Elmley, resulting from the winter waterlogging created for the spectacle of the wintering birds and the cold east coast climate.
- A reduced predator impact through effective control measures.
- Most important of all is the interrelation between these factors, coupled with real determination to ensure that those factors that can be controlled through active management are done so to the very highest standards.

Interaction seems to be the key. It is of little use putting effort into certain aspects and ignoring others. At Elmley, and I am acutely conscious that every site is different, it does appear that if we can consistently get the factors of production listed above acted upon year on year, then breeding wader numbers can be dramatically increased.

And numbers of breeding waders at Elmley do keep on rising. Increases in the key species for the estate are particularly rewarding. Annual survey work last year (2001) reported excellent breeding numbers of our indicator species:

- Lapwing - 526 pairs
- Redshank - 358 pairs
- Oystercatcher – 112 pairs
- Avocet – 99 pairs
- Black-tailed Godwit – small numbers
- Little Ringed Plover – small numbers
- Snipe – small numbers
- Ringed Plover - occasional
- Ruff – occasional

Another crucial element of this rise in breeding wader numbers at Elmley is the overspill factor as breeding birds colonise the surrounding farmland. A double bonus for breeding waders.

This is perhaps the point where it is appropriate to remind conservationists of something so obvious that it is often overlooked. Namely that grazing marshes have to be grazed. However tempting it is to think that this can be achieved through the use of rare, traditional or exotic breeds, the reality is that the extensive acreages of such habitats can only be grazed to the exacting standards required by these rather fussy breeding waders by grazing animals readily available in mainstream agriculture. Hence the link between conservationists and farmers (and their animals) is vital if we are to increase the numbers of breeding waders.

It has been well documented that breeding wader numbers in the UK have long been declining. Breeding Lapwing have dropped nearly 50% in the last ten years, breeding Redshank down by 60% in the last thirty years. And so it goes on. The list seems endless. Though as a farmer it pains me to say it, these declines have to be associated with changes in farming systems as farmers responded to very clear Government and Common Agricultural Policy signals to intensify production. The scales were chipped from my eyes one May, a few years ago, when I travelled to the premier wet grasslands of lowland England. A drive around England to places that read as a roll-call of the farmed sites of the birding world. But many were strangely quiet without the stirring sight and sound of the large numbers of breeding waders with which they were historically linked. A sombre picture indeed.

Such dramatic reductions in wildlife and their associated habitats led to MAFF starting to embrace environmental objectives, a development which has now evolved into the very successful North Kent Marshes Environmentally Sensitive Area (ESA) scheme. A development of agri-environment policy that has been widely welcomed in the UK. A recent Report on agri-environment and breeding waders, rather neatly titled "Wading Upstream", makes the point that of the ten nationally important breeding wader areas examined, the North Kent Marshes is the only area where farmers and conservationists are united in the effort to increase breeding wader numbers. On the relationship between breeding wader numbers and the implementation of agri-environment schemes, the Report states - "The schemes which appear to work best are those where there is a farmer involvement both in the design of the scheme and in the implementation of individual actions."

The same Report makes the vital connection between the success of agri-environment schemes for breeding waders and the management of that scheme on the ground by the Project Officer - "It is vital to build on the examples given where a sense of ownership and trust have been achieved between the farming community and the scheme Project Officers."

Conclusion

The way forward must be to create more interaction, and ultimately a partnership between farmers, conservationists and Government, where agri-environment schemes are based on encouraging positive management initiatives for breeding waders rather than solely by negative prescriptions or cross-compliance. If farmers are to be encouraged to regard wildlife production as a crop, and breeding waders do appear to be a crop that the public want, then their land management skills both directly and through their grazing animals, could bring huge benefits for breeding waders.

To conclude; nests of breeding waders successfully fledged integrated with the production of beef and lamb is what really matters. Let us hope that more integration and ultimately a partnership can be developed between farmers, conservationists and Government through positive countryside management schemes with clear objectives. To ensure the future of both breeding waders and farmers, nothing less will do.

Biographical Sketch

Philip Merricks was born into a long-established farming family. He farms on Romney Marsh and the North Kent Marshes in SE England. Both of these areas are alluvial and have large potential for productive agriculture and also for wildlife. His particular interests lie in farmland management that achieves profitable agricultural production and increased environmental protection and enhancement. He is currently Chairman of the Advisory Council of the UK's Farming & Wildlife Advisory Group (FWAG) – a charity that helps farmers integrate profitable farming with environmental care. He is also Chairman of the Executive Committee of RURAL – a charity that acts with the UK Government to develop policy options for agriculture and landuse. He was appointed MBE in 2001, for Services to Conservation in Agriculture.