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# **‘Farming on the edge’: Wellbeing and Participation in Agri-Environmental Schemes**

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## **Abstract:**

This paper investigates aspects of farmers’ wellbeing in the context of their participation in an agri-environmental scheme (AES), the North Yorkshire Cornfield Flowers Project (CFP) in the North East of England. Recent developments in wellbeing studies have informed data collection and analysis. Ethnographic data was gathered via observation, field notes and semi-structured interviews with farmers and non-farmer volunteers. The paper discusses how farmers’ social activity, identity, status and place belonging are enhanced through participation in CFP, and how this might promote their continued AES work. Recognising the potential for AES participation to enhance farmer’s wellbeing may demonstrate added value of AES and strengthen the argument for AES funding once the UK leaves the European Union. There is currently little existing evidence in the literature to support this since with only a few exceptions, wellbeing has been characteristically neglected in rural studies research.

**Key words:** Agri-environmental Schemes, Wellbeing, Social activity, Identity and status, Place belonging

## **1. Introduction**

The concept of wellbeing has received much attention in academic and policy circles in the last decade. It is now a recognised goal of public policy in many countries and supra national organisations such as the EC, OECD, and UN who are targeting substantial resources to conceptualise and measure it (Bache and Scott 2017). Despite the growth of interest in academic wellbeing research in development and area studies, very limited interlinkages have been made with rural studies. The concept of wellbeing is associated with sustainability (Knight and Rosa 2011) and has gained prominence in both policy and academic fora internationally, because of an emergent interest in new concepts to inform and measure success in terms other than narrow paradigms of economic growth (Bache and Reardon, 2013; Office for National Statistics 2011; Max-Neef 2010). Wellbeing is closely associated with positive

interaction between people and places (Jack 2012; Poe *et al.* 2016; Raymond *et al.* 2010) and may be enhanced by preservation of the natural environment (Carlisle *et al.* 2009; Roberts *et al.* 2015; Drescher 2014); yet the literature has not provided explicit evidence of its association with agri-environmental schemes (AES) participation, despite significant contributions on how farmers value nature and how their interactions with nature construct the good farmer identity (Burton 2004; Burton and Paragahawewa 2011). This paper addresses this gap, by analysing the impacts on wellbeing in the context of participation in a specific agri-environmental scheme. In particular, the paper reports on ethnographic research carried out with North Yorkshire farmers in England who are engaged in the Cornfield Flowers Project (CFP), in which they nurture rare, locally occurring wild flowers on arable margins.

Agri-environmental schemes seek to mitigate the effects of intensive farming known to be detrimental to biodiversity and the environment (Price and Leviston 2014; Uyttenbroeck *et al.* 2016). Despite being integral to the European Union's Common Agricultural Policy (CAP) and with considerable European money available to support participation, AES uptake has been poor, particularly in areas where land is farmed most intensively (Kleijn and Sutherland 2003) – a farming approach which may also be detrimental to farmers' health (Bryant and Garnham 2014; Bell 2004; Schirmer *et al.* 2013).

The paper is structured as follows. First, we present a literature review in the areas of wellbeing and AES participation, aiming for a synthesis of these two – separate to date – academic literatures in the context of our particular case study. Then a description of the Cornfield Flowers Project is provided. This is followed by a methodological description of approaches taken to data collection and analysis, and a discussion of findings with a summary conclusion.

## **2. Wellbeing**

Wellbeing started to emerge as a serious policy concept in the UK in 2005, when the Whitehall Wellbeing Working Group was formed to produce common understandings across government

departments, at the same time as new commitments to investigating the role of wellbeing was set out in the national sustainable development strategy *Securing the Future* (HM Govt. 2005). A year later, the Department of Environment, Food and Rural Affairs (DEFRA) commissioned several studies to explore the concept, including those which focused on the relationship of wellbeing and sustainable development (for example: Dolan *et al.* 2006, Marks *et al.* 2006). The concept and measurement of wellbeing is now used in various ways across UK government departments to inform and evaluate the impact of policy, including environmental policy – for example in evaluations of Nature Improvement Areas (UK Cabinet Office 2013) as well the frequency with which people access natural environments in order to determine their contribution to wellbeing (King 2015).

Wellbeing is an abstract term which allows it to be used in various ways by different interests, including political ones (Scott 2012, 2015). It is important therefore to note that the dominant concept of wellbeing at the heart of these new policy agendas is focused on an individual model (rather than a social or relational one) and often includes measures of individual happiness, life satisfaction and quality of life. This has been informed by an increasing interest in academic studies of subjective wellbeing, particularly from the disciplines of economics and psychology who tend to use experimental and quantitative approaches to produce large scale data. Academic, policy and public interest in subjective wellbeing is increasing as these studies highlight the correlations of subjective wellbeing to health and longevity (Diener and Suh 1997; Xu and Roberts 2010). This is evidenced for example by several new journals and many publications and book series devoted to the subject (e.g. *Journal of Happiness Studies* and *International Journal of Wellbeing*). However, the broader academic field of wellbeing studies is much more diverse, multi-disciplinary and contested, with key debates over ontological and epistemological issues, and consequentially various approaches to analysis (White 2016). Given the limited interaction with wellbeing in rural studies research, it is important to set out how we approach it and what informs our analysis.

The paper aims to position farmer's AES participation in the context of their own wellbeing. The broad concept of wellbeing, based on long established aspirations to a positive life state and common sense understandings, mean it is an accessible concept for those not wishing to, or able to, define or measure it (Bishop 2012; Scott 2012). However, wellbeing is variously referred to as quality of life, life satisfaction, flourishing, welfare and happiness (Philips, 2006). These are all different sorts of concepts with different philosophical and academic research approaches attached to them. Still, the various concepts, models and frameworks of individual wellbeing share some commonalities about what it constitutes (Taylor, 2015); for example, quality of personal relationships, economic and personal security, belonging, access to nature, and physical and mental health. What is not always clear from these individual models is what the complex relations are which produce and sustain wellbeing over a changing life course and environment.

In this paper we focus on three themes relevant to wellbeing, social activity, identity and place belonging. This is not a normative position about what wellbeing is or should be. Instead, our aim is to unpack wellbeing in ways that draw on recent research agendas in wellbeing and ideas of place, highlighting the complex relations between 'material, cultural, emotional and social' assemblages which constitute sites of living and their complex relations with wellbeing (Atkinson *et al.* 2012, p. 7). We take for granted that place is fundamental to identity and experience and therefore wellbeing should be contextualised within the environment in which an individual functions (Jack 2012). Of interest in the context of this study are sites of experience of wellbeing which are relevant for positive influence on psycho-social behaviours including those concerned with environmental protection (Raymond *et al.* 2010). However, we argue that the idea of place relevance of wellbeing derived from generalised quantitative studies has limited value when seeking to understand the nuances and particularities of individual or community interactions between people and place within this study. The importance of place in wellbeing is complex and depends on place physicality or on what place

provides or represents, including social capital, community, affect (Andrews *et al.* 2014; Schwanen and Wang 2014), place perception and attributed values (Rollero and De Piccoli 2010).

For example, in farming communities, the land and landscape hold particular economic, cultural and symbolic value, and this may interact with other aspects of their lived experience in unique ways. As argued below, involvement in AES schemes may cause positive and negative impacts and therefore demonstrate complex interactions between various constituents of wellbeing. We therefore approach this study by asking farmers to talk about the impact of their AES work on their own wellbeing in their own terms, without pre defining what wellbeing is for them or presuming the nature of the relationship between wellbeing, and the land and landscape.

Another area of interest in wellbeing studies responds to concerns regarding the increasing commodification of natural environments, in which the dynamics of place, landscape, nature and wellbeing are considered, and build on existing theories about therapeutic landscapes and human affinities for natural environments, as described by Gesler (1992) and Day *et al.* (2012). There is a consensus that natural environments have potential to enhance wellbeing (Bowler *et al.* 2010; Harper and Price 2011; Schirmer *et al.* 2013), and multiple disciplines are interested in defining the benefits, actively promoting nature for the sake of wellbeing (Juniper 2015; Roberts *et al.* 2015). Human wellbeing is apparently impaired by deteriorating natural environments (Roberts *et al.* 2015) - yet enhanced by its preservation or enhancement (Carlisle *et al.* 2009), indicating relevance for farmers' care for natural habitat on their land (Schirmer *et al.* 2013). Such dynamics may both motivate and be consequential to AES work.

Natural environments may enhance cognition and affect by improving purposefulness and fulfilment, increase ability to derive pleasure from life (Ahuvia *et al.* 2015) and promote mutually helpful and tolerant behaviours in social interactions (Haybron 2011). These dynamics aid social group cohesion, enhance wellbeing (Haslam *et al.* 2009) and increase stress resilience (Kelly *et al.* 2011). The low

intensity stimuli of natural environments may aid contemplation (Kaplan 1995) and provoke awe (Howell *et al.* 2011). For some individuals this can be simultaneously humbling and fulfilling, and an almost spiritual experience (Muirhead 2012), and mean that natural environments can simultaneously engage yet facilitate deep thought, helping individuals to rationalise their thoughts and problems (Herzog *et al.* 1997; Cervinka *et al.* 2012; Bratman *et al.* 2015).

### **3. Farmers' participation in agri-environmental schemes**

Academic research has overwhelmingly argued that intensive agriculture is detrimental to farmland biodiversity (Ahnström *et al.* 2013; Bell 2004; Uyttenbroeck *et al.* 2016). Whilst farmers often acknowledge that their management of their land may be detrimental to the environment, they often feel locked into productivity cycles (Richards *et al.* 2005; Moon and Cocklin 2011) which make AES onerous and push costs onto farmers themselves (Falconer 2000). From the 1980s onwards, EU policies have increasingly supported environmental friendly methods of farming (Burton and Paragahawewa 2011; Ahnström *et al.* 2013). Yet, AES uptake has fallen short, especially on intensively managed land where the need for AES is greatest (Kleijn and Sutherland 2003). Improving uptake requires a better understanding of how AES can be beneficial to farmers (Uyttenbroeck *et al.* 2016), and what motivates them to adopt AES. In this context, this study argues that AES participation increases farmer's wellbeing – an overlooked consequence of AES participation in policy and academic fora.

Research for example shows that financial reward does not by itself encourage farmers to adopt AES (Burton and Paragahawewa 2011), but is influenced by multiple factors which vary according to whether financial subsidy is offered or not (Lokhorst *et al.* 2011). Personal factors are influential when deciding whether to adopt an AES and may be more fundamental than extrinsic factors or practical circumstances (Riley 2006; Moon and Cocklin 2011) – for example farmers who understand how AES

participation might be personally advantageous are more inclined to adopt them (Uyttenbroeck *et al.* 2016).

AES participation obliges farmers to juggle food production and conservation which are culturally perceived to be opposing goals and farmers may develop co-existing identities which conflict practically and psychologically. Farmers investing time and effort on AES or things indicative of 'bad' farming instead of on productive crops may be treated with suspicion, and their behaviour considered deviant by their farming peers. It may be that only the farmers with good mental health and a robust self-identity can pursue AES work without losing peer group credibility (Hounsome *et al.* 2006).

Farmers often consider themselves to be guardians for the environment, and utilising this along with their existing social capital can help boost AES uptake (Mathijs 2003; de Snoo *et al.* 2013). This in turn may generate a sense of purpose and social identity; psychologically positive consequences in which sound environmental practices are embedded within the good farmer identity (Burton and Paragahawewa 2011). AES schemes aligning with farmers' beliefs about how farmland ought to look and which are administered by AES advisors who understand farmers' emotional relationships with their farms are likely to further facilitate the process (Hunt 2010), as is access to schemes in which farmers can target species for which they have strong emotional regard (Kleijn and Sutherland 2003).

AES administration often draws criticism from farmers. Schemes are often generically designed and implemented, regardless of farm size, type or location, making them untenable for many farms, and farmers may feel this is poorly understood by AES advisors and conservationists who do not always recognise farmers' skills, judgement and local, non-expert knowledge about conservation and local growing conditions. In addition, AES advisors may expect farmers to carry out work which conflicts with their social capital and identity (Burton *et al.* 2008; Dutton *et al.* 2008; Bartel 2013) or commit to a significant amount of AES surveillance which may be resented by those in the culturally autonomous farming community (Stock and Forney 2014; McGuire *et al.* 2015).



In this context, wellbeing presents a timely opportunity to look at AES participation given their mutual links with identity, place, land and landscape. Despite the growth of studies interlinking wellbeing with place and natural environment, these are typically based on large scale quantitative studies. Through qualitative ethnographic research, we present an original contribution on the effect of AES participation on farmer's wellbeing and whether this motivates AES involvement.

#### **4. The Yorkshire Cornfield Flower Project (CFP) in the North East of England**

The CFP was established in 1998 in response to surveys revealing critical declines of arable flowers such as Corn Marigold and Shepherd's Needle, known locally one hundred years ago (Carstairs 2006). Concurrent investigations of arable flora by a local farmer, a botany group and the Carstairs Countryside Trust (CCT) resulted in collaboration with the North Yorkshire Moors National Park (NYNPA) to form the CFP (Carstairs 2006). The project is unique in having a local focus, no farmer-project contracts and no financial incentive. It does have an advisory role, including for stewardship applications. Some farmers incorporate CFP margins into existing funded stewardship schemes, but others manage it without financial recompense because successful management conflicts with stewardship directives (Normandale 2016).

The project was funded until 2016 by several charitable organisations and had two project officers for much of the project's lifetime. One project officer was a farmer and founding member of CFP. Working on land purchased for the project and farms in the surrounding area, the project officers surveyed land for surviving populations of target species, and this process evolved into the survey through which CFP evaluates progress on an annual basis. Local farmers, non-farmer volunteers and organisations recruited through social and community networks re-establish the flowers according to their patterns of distribution a hundred years earlier. Participating farmers utilise arable margins and headlands to grow the flowers, bulk up seed reserves and develop working knowledge about habitat

preferences. The CFP has provided local social and educational activities and has donated thousands of seeds to Kew Royal Botanic Gardens' Millennium Seed Bank (Carstairs 2006).

Modern farming has dramatically reduced arable flower populations (Albrecht et al. 2016) as well as reducing farmers' physical exposure to those that remain, and many farmers, conservationists and AES advisors cannot identify them. However, CFP volunteer farmers have developed a good understanding of this rare suite of plants and are able to support industry organisations including DEFRA in their identification and management (Carstairs 2006).

In this study, male farmers provided most of the data. Their wives were typically heavily involved in running the farm and several contributed to this study's interviews, but men apparently dominated production-related decisions and CFP implementation, and were more likely to interact with the CFP 'show' of flowers.

Thirteen farmers are currently actively involved with CFP. All are at least in their fifties with some over eighty years old. Seven other farmers are CFP supporters but not active volunteers (Normandale 2016). The farms include tenanted and farmer-owned, are between 180-600 acres (Carstairs 2006) and described locally as good sized family farms. None are hobby farms, or large commercial farms, which have shown no interest beyond a preliminary species survey.

## **5. Methodology**

The paper draws on ethnographic research conducted by the primary author to explore farmers' wellbeing in the context of their AES work, with data collected via semi structured interviews, observations and field notes. Ethnography refers here to both research method and approach, with subjective perspectives of participants and researchers being equally valid and informative (Hughes *et al.* 2000). This approach has been used extensively in rural studies research – for example by Bell (2004) in his studies of farming communities. The ethnography focused on of the Cornfield Flower

Project (CFP) and CFP project officers acted as gatekeepers, helping to compile a purposive sample of ten farmers and nine non farmer CFP volunteers, all of whom had current or prior experience of managing the CFP and/or of providing practical, logistical or knowledge support to the project. On some occasions, a farmer's wife contributed to the interview and provided additional insights into the significance of CFP for their husband.

Overt, planned and opportunistic observation of participants engaged in activities including plant husbandry, surveys and during interviews provided rich data about farmers' solitary and social behaviours within the project's normal context. Ethnographic observations took place over a period of four months, across fourteen visits. Farmers were keen for the primary author to visit in fine weather in order to optimise appreciation of the flowers and this provided opportunities for observing and interviewing them where they grew the flowers. Many farmers were keen to show flora or fauna of personal pertinence, leading to lengthy but revealing physical and conversational diversions. The flowers generated dialogue and debate, elicited explanation and reference to CFP functions, and illustrated farmers' behaviours. Since some evidence has to be seen to be understood (Gillham 2005) CFP plants were treated as artefacts with contextual meaning.

Field notes were an aide memoire of those things not recorded during interview or explicitly expressed, and aided reflexivity about effects of the primary author's presence upon participants. Entries were written throughout the data collection process and illustrated emerging themes, including initially insignificant comments or actions which developed pertinence through patterns of reiteration or repetition. Interview recordings and transcripts were anonymised using a number for each participant (omitted here) with a letter to indicate farmer (F) or non-farmer (P) status. Analysis focused primarily on interview data, observation and field notes. Data was analysed using a deductive process of thematic analysis (Braun and Clarke 2006) to characterise different aspects of wellbeing. Following analysis, original transcripts and interview recordings were revisited to confirm context obscured by the coding process (Gibson and Brown 2009).

The authors deemed it inappropriate to disclose much about participants, because the smallness of the community means that individuals are easily identifiable and the research adheres to standard ethical protocols about participant anonymity. For this reason, we have also omitted any numerical classification at the quotes provided in this paper, as mere comparison between those could also identify certain participants. However, as illustration of how all the farmers described how their CFP participation enhanced their wellbeing: five farmers each provided two of the quotes included in this paper, and other farmers provided one of the remaining quotes each.

## **6. Findings on wellbeing**

AES participation appeared to enhance farmers' wellbeing in several ways. Depending how wellbeing is defined, it can encompass everything the farmers relate: belonging, interaction with nature, social connections etc. In this paper, drawing on the recent theoretical developments between wellbeing and place, we focus on three themes, namely facilitating social activity, informing identity and status, and reinforcing place belonging. All these three themes are non-exclusive components of wellbeing.

### ***Social activity***

All of the farmers except one spoke positively about social opportunities created by CFP participation. These included purely social visits, of considerable satisfaction to farmers and their wives, through to CFP species surveys conducted annually by project officers. Visiting one another's farms for whatever reason usually incorporated an inspection of the CFP margin there, and this apparently fulfilled several functions including the dissemination of AES husbandry techniques and expertise discussed in a later section. Farmers' efforts to help one another establish arable flower populations appeared to be intrinsic to their social interactions. They reported enjoying helping others by providing time, CFP expertise and seeds which acted as relational goods, helping to nurture relationships and identities (Becchetti *et al.* 2015). Young plants and seeds were frequently shifted between farmers' vehicles

when they met up, amidst discussion about who else might utilise seed surpluses or appreciate their advice and support.

Visiting each other's flowering margins provided material for reminiscence and many anecdotes which help shape the farmers' shared CFP identity, reinforcing their social connections, group norms and expectations (Vanclay and Enticott, 2011; de Caro, 2012). Narrative sharing and the subsequent humour appears to develop resilience to adversity, as described by Calman (2001) and the delight farmers derived from reiterating CFP related stories about one another was evident, especially when different versions of the same story were told with the hilarity being fuelled by embellishments or denials of those featured in the stories.

When inspecting CFP flowering margins farmers often admired the flowers at close range which provided observational interest for the research, especially when individuals alerted one another to particularly fine specimens or rarities. On such occasions, farmers would gather and kneel in the soil together to examine the flower. The frequency with which this event occurs has led to it epitomising CFP behaviour as well as reinforcing the CFP group script. Its pertinence means it is widely used in CFP literature (Figure 1) which in turn has increased its significance to farmers who see it acted out on their land. One farmer made explicit reference to it saying:

*The most satisfying thing is when \_\_\_\_ brings a party and they find a plant that he doesn't know...; oh, he drools over them, there'll be photographs of them down on the floor! (F).*

Figure 1: Examining flowers in CFP margin. (Image courtesy of CFP) *(Insert Figure 1 here)*

Seeing this behaviour enacted on his own farm generated pride about his margins containing plants rare or interesting enough to provoke the response. He realised also that his annual species survey would be improved by such plants being found on his land, which would provide status and fuel CFP's friendly rivalries as referred to another participant:

\_\_\_\_\_ (is) competitive about his species count. He perhaps doesn't know every species that's there, but that bottom line number is the one that matters...there's a friendly rivalry with him and \_\_\_\_\_ (P).

Social processes sometimes extend beyond the immediacy of CFP via farmers' association with non CFP individuals and agencies who appreciate the biodiversity on the farms. These include botany, bird watching and butterfly conservation groups and such contacts enable farmers to develop their social and knowledge networks. These social processes are psychologically rewarding, as illustrated by farmers' delight at other peoples' responses to 'their' biodiversity. One suggested taking a photograph of the primary author and himself amongst his CFP flowers, while the demeanour of another farmer betrayed his unspoken pride at their appreciation of the rare species on his land. He later admitted:

*people like yourself... it pleases them that there's something special, so you get a satisfaction out of knowing that you've helped (F).*

Wellbeing can be enhanced by a balance of social interaction and solitude, with retreat from everyday social interactions and events important for self-affirmation and self-esteem (Shadden *et al.* 2008). Whilst not explicitly expressed by every farmer, unstructured time spent in the vicinity of their CFP and other AES work was frequently mentioned and sufficiently compelling as to warrant inclusion. Several farmers explicitly described how CFP and AES areas as preferred places of retreat pleasantly occupied their senses in a way that homogenous cash crops could not, apparently by providing the low level sensory stimulation described by Herzog *et al.* (2003) as restorative. Their apparently idle time spent in these areas may have been utilised as moments when they could ponder life and internally debrief without interruption, recognised as valuable by Singleton and Law (2013) and succinctly described by one CFP farmer talking of his emotional wellbeing:

*I just like to stand here, I walk up here sometimes and just stand here, I like that (F).*

Such behaviour facilitates reflection and problem solving and cannot be done when engaged in risky farm tasks which require full concentration. The importance of retreating to think was described by one farmer's wife who described her husband's frequent disappearances saying:

*I often miss him and I say, where've you been, ah, I've been looking at me margins he says, that's where he goes (F).*

### **Identity and Status**

Self-identity and evaluation of self-worth is heavily influenced by an individual's occupation (Gordon 1976) and actions which may be especially important for farmers who construct their self-identities on the basis of *how* they choose to farm, (Burton and Wilson 2006; Lokhorst *et al.* 2011). Balancing productivity and conservation was fundamental to the ways CFP farmers operated, and informed their evaluation of farmers' status and identity, including their own. Several farmers saw no conflict between managing their land for both conservation and productivity, in line with findings of Burton and Wilson (2006), who found farmers' post productive or conservation identities could co-exist alongside productive ones. One farmer described this balance as choosing to avoid, 'wringing every last drop' (F13) out of his land by utilising its natural capital, maintaining significant areas of AES alongside productive one.

This study found farmers' identities were initially threatened by conservation work but that increasing age and improved conservation skills enabled them to disregard others' opinions. CFP farmers consistently and frequently used words including loner, tough or deviant to describe themselves, and this defiant self-identity and self-evaluation appeared to help them navigate cultural expectations about AES participation; corroborating the findings of Richards *et al.* (2005) about AES farmers needing resilient identities. As a group, CFP farmers were positively described by an expert AES farmer not in CFP as, 'hard core' conservationists because of their AES skill and commitment; an illustration of how conservation actions secured status and identity in line with findings of Lokhorst *et al.* (2011). Their

ability to produce a 'good show' of flowers was not simply about aesthetics but demonstrated their skill in producing large yields of rare flora seed with certain species indicative of a farmer's 'capacity to deliver' (F), helping to confirm their status as conservation farmers. CFP farmers have specialist plant skills rarely found outside their community of knowledge, and their advice is consequently respected both within the project and by other agencies. The project officers often utilise farmers' insights about managing the arable flowers and in turn their advice is respected by farmers who feel their own skills and knowledge are validated by the project's approach.

CFP farmers realised their conservation work might not be appreciated by other farmers, with several admitting they rarely discussed their deliberate propagation of weeds unless confident of a positive response. One commented:

*arable farmers think it's a bit cranky I suppose, for the cornfield flowers anyhow, cos, I mean they've been spraying to get rid of them for years (F).*

Another speculated his farming neighbours might be irritated by seeds from CFP margins drifting onto their land, and understood this contravened 'good farming' and therefore the 'good farmer' status. Cultivation of arable weeds required visible defiance of group norms and the nurture of a convincingly modified version of good farming. Applauding one another's conservation skills and recognising that conservation activities could enhance life quality helped affirm their alternative 'good farmer' identity, making it more culturally acceptable. One farmer made explicit reference to ways a fellow CFP farmer had achieved this, saying:

*he's put his conservation before his commercialism and I don't mind that! He's got a good farm but he has a more fulfilled life than the majority of farmers (F).*

Despite deviating from traditional good farmer identities, CFP farmers retained traditional economic and husbandry frameworks to assess their societal contribution. Use of land for AES was rationalised



in economic terms with claims that cropping marginal land wasted resources and damaged machinery. One farmer legitimised AES work further, remarking that society and successive governments have sanctioned and encouraged AES and that his contribution let intensive farmers:

*off the hook a bit; they can get on and grow the crops and at least somebody's doing something (F),*

thus illustrating how he positioned himself within the wider agricultural economy. The farmers were keen to stress that excellent husbandry skills were needed to be a good AES farmer, with one saying:

*It's very easy for us to grow a good (food) crop, we can run over it with the sprayer to knock out everything we don't want and have a really good crop. The other bit's difficult actually, these strips we put in are very difficult to manage (F).*

Similar comments were frequent asserted, indicating their belief that AES was not an easy option but demonstrated competence in line with their preferred identity.

As well as demonstrating a farmer's conservation competence and therefore status, some species of flora and fauna bring status by virtue of their own intrinsic value which might include beauty or rarity. Species often become iconic as a consequence of scarcity caused by lack of ideal habitat. Such habitat is itself often scarce because it requires time, effort and skilful management, and farmers often lack such resources. Even if not the object of a farmer's interest the status derived from iconic species was realised, as expressed by two farmers:

*I haven't a great interest in orchids as such but they do sort of reflect the quality (F) and:*

*People go mad over them, they're just common as muck to us! (F).*

A third farmer, in describing the barn owl as a currency of status provided an explicit association between iconic species and farmer status:

...they're bragging about wheat, tons of, you can say, (so) how many barn owls (do you have)?

(F).

This also illustrates the incorporation of species richness into farm value assessment; historically a status indicator, as did a later conversation between CFP farmers speculating about the worth of land enhanced by one of them through extensive AES work. Their consensus, made without dissent or irony was that the land was, 'priceless', this assessment apparently made on the basis of biodiversity richness. CFP species specifically were themselves used to determine worth and farmers and others interviewed frequently referred to the quality of each other's annual surveys. The status derived from a survey recording high species prevalence and diversity is such that farmers often postpone it until a fine day so that the visual spectacle is optimised, increasing the likelihood that rare and elusive species will be spotted and boosting the total count. Farmers often also conduct preliminary inspections of their margins and continue to patrol them during the survey so that species easily overlooked are included. Whilst affirming status and identity and therefore enhancing wellbeing, this process also provided a yardstick with which farmers could measure outcomes, recognised by Home *et al.* (2014) as important in motivating further AES participation.

### ***Place Belonging***

Place relevance may be understood only by the person who 'is' that place (Gibson, 2012), meaning AES which are place congruent might support place attachment, and so be more attractive to farmers. CFP farmers who got historically occurring species to thrive in locations where their fathers and grandfathers would have seen them felt deeply satisfied, perhaps for several reasons. Strong species/place associations reinforce the place's identity as well as reinforcing peoples' relationships with and sense of responsibility for both place and species (Forristal *et al.* 2012). In addition, CFP farmers who attached value and sentiment to farms considered poor or inconsequential by others appeared to feel vindicated by AES related biodiversity gains, with one farmer saying:

*It gives me satisfaction that I'm growing things that other people can't on better land, we've poor land here, we've always been the poor relation really (F).*

Every farmer interviewed described habitat peculiar to their farm which enabled specific species to thrive, and their understanding of this place/species relationship was a motivation to protect both entities. The primary author was frequently shown spots where certain birds habitually nested or where niche plants flourished; 'they like it here', was the inevitable affectionate introduction, followed by a detailed explanation of why that particular place suited the needs of what thrived there. Several farmers exhibited the habitual anthropomorphism thought to increase conservation commitment (Tam, 2013), with one farmer's speculation about a hare's internal dialogue and comments including: '*robins are not very nice people*' (F), providing striking illustrations of how they related to the species on their land.

Three farmers explained how biodiversity increases attributable to their AES work motivated them to stay at home enjoying 'their' wildlife when they would formerly have gone to visit wildlife-rich sites elsewhere. One claimed no desire for holidaying elsewhere, saying;

*I've got a boat and I've got a pond... there's kingfishers and stuff like that down there... that's magic isn't it? ...*

All the farmers enjoyed monitoring the proliferating flora and fauna on their land and described regularly going to look for specific species. They described consistently gravitating towards AES areas because they felt an increased sense of belonging there; those areas were more engaging and representative of them than their productive land was. This sentiment was expressed even by tenant farmers who might logically have less sense of belonging than owner occupiers, with one saying:

*Nobody can take it away from you can they? Because the farm isn't ours, but yet, that is yours isn't it! (F).*

Without exception, CFP farmers related experiences and opinions in story-style narratives, situating them within their farm's chronology. Their insight about how they were both shaped by and contributed to their farm's history was evidenced by their descriptions of place belonging, with one saying:

*...we're the (XX) generation like, and we're part of the (local) history... (F1).*

Hopes about farm succession by younger (not necessarily their own children) family members reinforced farmers' sense of familial place belonging and appeared to incentivise AES work. Ensuring that land is sustainable is a way of providing for one's family (Farmar-Bowers and Lane 2009), and AES provides visual evidence of how a farmer chooses to strike the balance between use and care of land (Ahnström *et al.* 2009). Individuals achieving this tend to feel mentally and physically healthier, and associate that particular environment with feelings of permanence and belonging (Drescher 2014; Harvey and Julian 2015), as was powerfully illustrated by one farmer when he showed his favoured AES spot which he described as his 'spiritual' (his word) place of belonging.

## **7. Discussion**

This study set out to investigate the effects of AES participation on farmers' wellbeing and whether this motivated AES involvement. Wellbeing has not been previously considered as a motivator for or consequence of AES participation, and the concept of wellbeing itself has been given scant attention in rural studies research. The challenges of defining and researching wellbeing are many, but significant developments have been made (and contested) across the social sciences in the disciplines of economics, psychology, geography, sociology, planning, politics, law. As policy interest in this concept increases at UK government level with a view to including wellbeing in environmental and rural policy evaluations (among other policy areas), it is important that research develops in rural studies to support that. Furthermore, the study contributes to the wider development of critical literature on wellbeing. One of the key reasons for looking more holistically at wellbeing through the

lens of identity, social interactions and place belonging, is to respond to the growing interest for a wider appreciation of the complex interactions and cumulative impacts on a person in the context of their everyday life (Atkinson *et al.* 2012). Although we don't argue these themes encapsulate wellbeing or define it, we draw on and add to a growing body of research which highlights their close relationship with wellbeing. The importance of this inquiry is to recognise relationships and interactions that are missed from traditional AES policy discourses, but which have impact on farmer motivations and behaviours.

The study builds on existing literature about farmers' socio-cultural capital, identity and AES adoption, including that farmers favour schemes designed in collaboration with farming communities. These are more likely to accommodate farmers' socio-cultural needs, making the AES more satisfying and sustainable. This study's findings suggest AES participation enhances farmers' wellbeing and creates a virtuous cycle of continued AES work.

CFP design and implementation are pertinent to the study's results because they affect ways that farmers derive satisfaction from it. Being results-orientated and location specific, CFP provides scope for farmers to utilise existing socio-cultural capital, skills and knowledge. Rather than threatening their farmer identities by asking them to act in incongruent ways (broadly recognised as discouraging AES uptake, see for example: Warren *et al.* 2016), they develop farming related expertise that few others have and this affirms their identity and status within their peer group and amongst non-farmers who have recreational or professional interests in biodiversity and flora.

Satisfactory social processes can enhance people's sense of cultural and community belonging (Burton 2004; Bell 2004) and in so doing may help to sustain AES participation. This was evident in CFP social activities, through which farmers assessed group and individual status as 'good' conservation farmers. Annual surveys, farm visits and discussions about how many acres, seeds and species are processes through which the farmers judge one another's performance, and contribute to the symbolic value

with which they determine 'good farmer' status (Burton 2004). CFP flowers have particular significance: their aesthetic appeal provides a sense of satisfaction for farmers but they are also a visible, comparable medium denoting conservation farmer expertise through familiar criteria such as yield and acreage, mirroring farmers' behaviour in wildflower projects described by de Sainte Marie (2014) and Fleury (2015).

Farmers gain status from the intrinsic value of the iconic arable flower species as well as from the symbolic value associated with plants difficult to cultivate. The knowledge and practical experience needed to grow arable flowers is rare outside the CFP community, reinforcing their alternative 'good farmer' identities in which traditional good farmer traits such as working hard and being a guardian of the land combine with conservation skills. As well as securing status, this enables farmers to reduce the dissonance experienced as a consequence of managing land in ways they believe to be detrimental to it.

AES which do not align with farmers' beliefs about how land should be managed can threaten their social status (Burton 2004); risking their willingness to participate in AES. In this study, even farmers who voluntarily reduced the productive areas of their farms in order to accommodate AES retained a production-outcome focus, in line with their cultural norm of measurable productivity indicators. Existing evidence (see Burton *et al.* 2008; Burton 2004) suggests that farmers enjoy comparing their AES outcomes with those of their farming peers because this demonstrates farming ability and brings prestige. This was evidenced in this study by comments including the explicit, 'how many barn owls' challenge, the rivalries around annual surveys and the pride of growing flowers which others would kneel to admire.

Place belonging is informed by interactions between social and familial connection and attachments to one's physical environment (Raymond *et al.* 2010; Bell 2004) and can increase place-related wellbeing (Rollero and de Piccoli 2010). CFP farmers' described place belonging in terms of their past

and anticipated future experiences and relationship with their farm and the local area, leading to a sense of responsibility for land stewardship (Drescher 2014; Herman 2015). CFP capitalises on this by reinforcing farmers' sense of place through representations of local farming and natural history in which flowers seen locally by their grandparents might be seen by their own descendants because of their CFP work.

Because arable flowers benefit pollinators, birds and certain mammals (Albrecht *et al.* 2016) farmers can indulge their wider biodiversity interests and make local contributions to these without detracting from CFPs main aims. This motivates them to look more closely at biodiversity on their land, creating favoured places for retreat from the everyday challenges of farming and stimulating their general interest in AES work. Observing and reflecting upon visible effects of CFP work helped farmers refine their land management strategies so that cash crops and AES could both be managed more effectively and preserved in the best possible condition for future generations.

## **8. Conclusion**

The principal strategy at present for addressing biodiversity loss and environmental degradation on UK farmland is to pay farmers to implement highly prescriptive, nationally implemented AES. This is ineffective, and the UK's exit from the European Union provides an opportunity for AES redesign. This study's findings suggest AES participation can enhance farmers' wellbeing which may help sustain their AES participation. The value of AES lies therefore not only in environmental protection but also in the wellbeing of farmers. This is pertinent since farmers will be subject to significant uncertainty whilst the UKs exist from the European Union is negotiated. This study has scope to inform the design of new AES, and suggests their design should address the social challenges of participation. Farmers should have design input and schemes should be locally implemented to take account of local conditions. They should utilise farmers' existing skills, socio-cultural capital and personal interests and have measurable outcomes with which farmers can assess their own achievements and those of

others over time. AES which support a culture of peer support and skill acquisition are likely to be more sustainable, and likely to enhance farmers' wellbeing, providing further justification for such schemes to be funded following the UK's exit from the European Union.

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