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Foreword

Aimed at readers interested in a wide range of rural issues, the Centre for Rural Research Annual Review 2004 offers an overview of the work conducted by CRR staff over the last twelve months. This year's collection of papers reflects the growing diversity of research undertaken by members of the Centre, ranging from longstanding areas of interest such as changing farm incomes through to the role of women in rural economies and the war time Plough-Up campaign. In many cases full reports or further details on individual projects are available from the CRR website: www.ex.ac.uk/crr.

Matt Loble
January 2005

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The Role of Women in the South West Rural Economy

Carol Morris and Jo Little

Context: Rural Women and their Work

Women's participation in paid work has been increasing steadily over the past few decades. Nevertheless, as a group women continue to face particular constraints in relation to the labour market and are disadvantaged in a number of ways once they have entered it, with the continuing gender pay gap being just one example. These constraints and disadvantages are thought to be exacerbated in a rural context, for a number of reasons, and as such rural women's employment characteristics have been shown to be distinct from their urban counterparts, implying a specific policy response is needed. A concern in the late 1980s and early 1990s that rural women were finding it difficult to find employment led to a study funded by the Rural Development Commission which attempted to examine the main characteristics of rural women's employment and to identify constraints on their participation in waged work. In summary, the main conclusions of that study (published in 1991) were:

- Relatively low rates of labour market participation amongst rural women.
- High numbers of women in part-time employment.
- Self-employment and working for the family business were important categories of women's employment.
- Part-time work tended to be low skilled and poorly paid.
- Poor conditions of employment generally with low wages and few employment benefits.
- Relatively little employment training taking place and an under-utilisation of women's educational and employment qualifications.
- Dependence on private car use due to poor levels of public transport.
- Difficulties with childcare and the adoption of innovative strategies to combine paid work and caring for children.

This represents a baseline from which to work. More recent research has added weight to these findings and has also highlighted that women's contribution to the rural economy goes *beyond* paid employment (e.g. Hughes, 1997a, 1997b; Little, 1997a; Little, 2002; Little and Austin, 1996; Mauthner et al., 2001). Involvement in paid work is only one part of women's economic activity and contribution. Child care and other activities which support the household and the rural community (e.g. through voluntary work) may be just as crucial, if not more so in some circumstances, to the operation of the rural labour market and the broader working of the rural economy (Little, 1997b). Our recent research projects have been undertaken with the broad objective of updating and extending this earlier body of research on rural women and work and specifically

to build a *regional* picture of women's contribution to the rural economy, including their contribution *beyond* paid employment. In this sense, we have worked with a broader notion of 'rural economy' than might ordinarily be the case¹.

In the sections that follow we will firstly provide a brief description of four research projects that have recently investigated rural women's involvement in the labour market and their contribution to the rural economy of the region. Following this, data derived from secondary / published sources will be presented which provides a broad, regional picture of women's employment. Then, drawing on our own empirical research with women living in various communities within the region, we provide an illustration of some of the ways in which women experience the labour market and unpaid labour in the home and community. The paper concludes with some reflections and messages for policy.

Four Research Projects

Since 2001, we have undertaken four separate, but related, pieces of research on rural women and work, three of which have been focused on the south west region.

1. The role and contribution of women to rural economies (2001-2)

Commissioned by the central office of the Countryside Agency, this project investigated the employment characteristics and experiences of women in three rural areas in England (North Cornwall District, Kennet District in Wiltshire and the Metropolitan Borough of Calderdale in West Yorkshire), using data from a postal questionnaire survey of almost 500 women, follow-up interviews with about 30 women (10 in each of the three areas), and interviews with service providers, policy advisors and policy makers (see Little and Morris, 2002).

2. The role of women in the rural economy: a south west regional view (2003-4)

This was a desk study, undertaken for the Countryside Agency's South West Regional Office, of published sources of information and data on women's contribution to the rural economy of the region (see Little and Morris, 2004a).

¹ Various people have attempted to define the rural economy. For example, in their report to Defra on this topic, Michael Winter and Liz Rushbrook say that, "rather than talking of the rural economy, or even rural economies, it is better to consider economic activity that takes place in rural districts and/or is undertaken by people in rural districts. It therefore makes sense...to use population definitions of rural areas and to consider those economic activities that are important to the residents of defined rural areas. At the same time we need to recognise that there will be other people living in defined rural areas who work outside those rural areas" (Winter and Rushbrook, 2003). We are inclined to agree with this definition, while recognising that other people prefer to talk about 'rural economic activity'. In our work we have also tried to understand something of the social context of economic activity.

3. The role of women in the rural economy of the South West Region: a Somerset case study (2004)

This followed on directly from the previous piece of research and was also funded by the Countryside Agency's South West Regional Office. Based on a case study of women's employment in the Blackdown Hills in Somerset, this research replicated the methods employed in the study for the Countryside Agency in 2002, to enable comparison with data from the other south west case study areas of Kennet and North Cornwall Districts. Around 100 women were surveyed and 15 interviewed. To obtain a more strategic view on the issues, 13 interviews with individuals from key agencies and organisations were conducted (see Morris and Little, 2004).

4. Rural women's employment in North Devon and Torridge

This was another empirical study of women's employment in North Devon and Torridge Districts, completed as part of a larger project designed to support the employment and training of rural women in Devon. The research element of the project was delivered in partnership with the Community Council of Devon and part funded by the European Social Fund. A total of 230 women were surveyed using a postal questionnaire (distributed via service providers and other 'gatekeepers') and 50 women agreed to take part in a semi-structured interview. A series of interviews was also undertaken with service providers, policy advisors and project workers (see Little and Morris, 2004b).

Together these four projects have produced a considerable volume of information and so it is only possible to present selected data here. Readers requiring more information and detail should refer to the original research reports.

Some Key Regional Figures on Women and Work

We begin with some overall figures on employment participation and economic activity, occupation and hours worked. Nationally, women's employment participation is continuing to rise, and over the last ten years has been doing so at a faster rate than for men. The working-age (i.e. 16 to 59) employment rate for women now stands at 70.1%, with the employment rate for men at 79.5 %. Looking at the regional picture (see Table 1), it is apparent that the south west has the highest female employment rate (75.7%) of all the UK regions, and this has been growing at an above UK average over the past five years. Using this indicator alone, in a region that is classified as predominantly 'rural' (according to the Countryside Agency definition of local authority districts), it would appear that women are making a significant, and increasing, economic contribution.

Table 1: Rates of women’s employment by region

| Region | Employment Rate |
|--------------------------|------------------------|
| North East | 66.2 |
| North West | 70.1 |
| Yorkshire and the Humber | 70.4 |
| East Midlands | 71.7 |
| West Midlands | 69.4 |
| East | 73.8 |
| London | 63.5 |
| South East | 73.0 |
| South West | 75.7 |
| United Kingdom | 70.1 |

Source: National Labour Force Survey (February 2004)

Economic activity rates vary across the region however, and “in general terms [i.e. for both men and women], activity rates were higher in the north and east of the region and lower in the far south west, with the majority of the lowest activity rates experienced in the Cornish local authority areas” (South West Observatory, 2003).

While women in the region constitute a growing proportion of participants in the labour market, evidence suggests that they are more likely than those in other regions to be *self*-employed. Nationally, women are still much less likely to be self-employed than men (7.4% and 16.7% respectively of the economically active population, according to the 2001 Census). However, the South West has the highest percentage (14.9%) of self-employed people of all the regions in England and Wales, and this was the case for both men (19.5%) and women (9.5%). Significant sub-regional variations in levels of self-employment for both men and women are also evident, with the highest levels of female self-employment in the Scilly Isles (21.9%) and the lowest in Gloucester and Plymouth (both 3%). On the whole, rates of self-employment were generally higher in the far south west of the region than in the north and east, with the interpretation for this pattern being lack of opportunity in the labour market in the more remote parts of the region, encouraging or perhaps forcing people into self-employment.

Relatively high levels of employment participation and economic activity among women in the region disguises the fact that women here are more likely than anywhere else to work part-time. While part-time working is a characteristic

feature of women's employment nationally (see Table 2), in the South West the proportion of female employees who work part-time is the highest in England and Wales, standing at 45% (the national figure is around 40%). Incidentally, men in the South West are also more likely to work part-time than men in other regions. Once again, there is a clear geography to part-time working, with the lowest rates of part-time work generally found in the north and east of the region, with the highest rates in Cornwall and Devon. What is important here is the potential link between part-time employment and poorer conditions of employment including low wages. The levels of part-time working might not tell us much in themselves, but they do say important things about the choices available to rural women, not only within the job market but also in terms of the domestic economy and division of labour.

Table 2: Part-time employment by region (% of all employees)

| Region | Females | Males | All |
|--------------------------|----------------|--------------|-------------|
| North East | 42.8 | 6.4 | 24.1 |
| North West | 41.0 | 6.5 | 23.4 |
| Yorkshire and the Humber | 44.7 | 6.4 | 25.0 |
| East Midlands | 42.7 | 5.8 | 23.4 |
| West Midlands | 41.6 | 5.7 | 22.9 |
| East | 41.6 | 5.3 | 22.7 |
| London | 26.9 | 6.9 | 16.8 |
| South East | 39.9 | 5.5 | 22.0 |
| South West | 45.1 | 6.6 | 25.3 |
| England and Wales | 40.0 | 6.1 | 22.5 |

Source: National Labour Force Survey (February 2004)

In terms of the kinds of jobs that women are doing, nationally traditional areas of female employment e.g. secretarial and administrative occupations and personal service occupations remain overwhelmingly predominated by women (Labour Force Survey spring 2002). They also predominate sales and customer service occupations. Meanwhile, women remain underrepresented in manual occupations, particularly within the skilled trades and among process, plant and machine operatives. They are also under-represented among managers and senior officials where only a third of those employed are women. If we look at the regional situation, the Census 2001 (Table 3) shows that this reflects in large part the national picture, although here women are slightly less likely to occupy managerial, professional and associate professional positions. Women in the south west are more likely to be working in personal services, sales and customer support and elementary occupations, but slightly fewer women in the region than nationally have administrative / secretarial occupations.

Table 3: Occupational groups in the South West

| | Managers & senior officials | Professionals | Associate prof. & technical | Admin & secretarial | Skilled trades | Personal services | Sales and customer support | Process, plant & machine operatives | Elementary |
|--------------------------------|-----------------------------------|---------------|--------------------------------|------------------------|-------------------|----------------------|-------------------------------|---|-------------|
| All | | | | | | | | | |
| South West | 14.6 | 10.3 | 13.6 | 12.8 | 13.3 | 7.2 | 8.1 | 8.1 | 12.2 |
| England & Wales | 15.1 | 11.2 | 13.8 | 13.3 | 11.6 | 6.9 | 7.7 | 8.5 | 11.9 |
| Females | | | | | | | | | |
| South West | 11.0 | 9.0 | 13.7 | 21.8 | 3.0 | 13.5 | 12.8 | 3.0 | 12.4 |
| England & Wales | 11.1 | 10.0 | 14.2 | 22.7 | 2.4 | 12.7 | 11.9 | 3.1 | 11.9 |
| Males | | | | | | | | | |
| South West | 17.6 | 11.5 | 13.5 | 5.1 | 22.0 | 1.8 | 4.1 | 12.4 | 12.1 |
| England & Wales | 18.5 | 12.2 | 13.5 | 5.4 | 19.5 | 2.0 | 4.1 | 13.1 | 11.9 |

Source: Census of Population, 2001

At a sub-regional level, the South West Observatory has been unable to identify any distinctive general patterns across the occupational groups, although local authorities with the highest levels of administrative and secretarial workers included South Gloucestershire, Tewksbury, Gloucester, Cheltenham and Swindon, all to the north and east of the region, with those local authority districts recording the lowest proportion in these occupations in the far South West. While the figures are not directly comparable, data from our case study areas suggests that women in the Blackdown Hills and Kennet District are much more likely than their counterparts in North Devon and North Cornwall to hold managerial or professional / associate professional posts. In the Devon study, for example, 27% of respondents worked in this capacity, compared with 34% at a regional level.

The final feature of women's employment at the regional level that we will examine is wages. It is well known that the South West region experiences some of the lowest wage rates in the country with average wages falling around 10% lower than the average for UK across the majority of occupations. In 2002 average gross weekly earnings of full-time adult employees were £422 in the South West compared to £463 in the UK as a whole (New Earnings Survey, 2002). The wage gap between the South West and the UK is greatest in the managerial and professional occupations, and least for craft and related occupations, operatives and 'other occupations'. More interestingly here, perhaps, are the intra-regional differences in wage rates. According to the New Earnings Survey, wage rates within the region vary considerably by county. In the north of the region (Swindon and Wiltshire, Gloucestershire and the West of England sub-region) average wages are similar to those found in the UK as a whole. Wages fall, however, in the more western parts of the region (Somerset, Devon and Cornwall). The lowest wages in the region are experienced in Devon and Cornwall – these counties also have the highest proportion of low earners. In 2001 average gross weekly earnings in Devon were £342 and in Cornwall £317 compared to an average across the South West of £379.

When interpreting the figures on wages it must be remembered that they are based on full-time employment. The varying number of hours worked as 'part-time' make averaging and comparisons difficult. The association between low earnings and part-time work is, however, well established. The fact that the South West has the highest level of part-time working of any region in England and Wales is clearly a factor in the region's low wage rates and for women's rates of pay in particular.

These figures provide a useful general picture of women and the rural economy of the region but they tell us very little about the actual *experiences* of women in the labour market, the choices available to them and the barriers and constraints they face in accessing paid employment. They also say nothing about how women's paid work relates to their other forms of work, in the home and community. For this type of information we need to turn to the results of our

empirical research, particularly the qualitative information derived from interviews with women (and the Somerset case study in particular). It is important to highlight that the data derived from these studies tell us what is happening in the particular communities where the research was carried out. Collectively, the case study data do not necessarily provide a 'regional' picture, so caution must be exercised when drawing general conclusions from these studies.

Experiences of the local labour market

The majority of women who were currently in paid employment at the time of our surveys expressed a high or moderate degree of satisfaction with their job. However, a number of interesting and revealing observations were made about the limitations of the local labour market, with the following remark recorded on a questionnaire return from Somerset:

“There is a dearth of reasonably paid employment for women of any age in this area but particularly for anyone aged 40+ and who wants to return to work after bringing up children. With a degree in English, a post-graduate professional qualification and years of working for major corporations in London, I am either over-qualified or too old for most of the posts advertised in the local press. We own a 15 acre smallholding but there is no way this will yield a viable family income” (47 year old woman, working full time (during term time), living with husband and two teenage children).

Kath¹ explained how most of the young women in her village (Churchinford) who work do so in the nursing home, a local packaging factory or Asda in Taunton. She claims that the majority look for a part-time job (rather than a full-time job with career prospects) 'out of necessity' as it is not a wealthy area:

I think they work out of necessity and they take whatever they can and I suppose for convenience sake I suppose it always has to be part-time....The women just do a job to contribute to the house and unfortunately the women get to do some of the real you know basic jobs ... they don't go for the you know the self-respect of being a teacher or a solicitor or anything like that, they don't appear to, I mean obviously there are exceptions but the majority, they just do a job.

Although Violet, also from Churchinford, believes that it is fairly easy for a woman to get a job in the area, the difficulty lies in getting one that is interesting and well paid. The following quote sums up a general view:

¹ All names have been changed to preserve anonymity.

...in Somerset you know most of the employment you're looking at is national minimum wage whereas you know with the Civil Service and Local Government you tend to get paid more... There's a lot of small businesses in Somerset and a lot of them are maybe tourist related so are seasonal you know so they haven't got that flexibility [that her job in the Civil Service offers], they've got fixed hours you know because there's not a lot of competing employment and there's poor transport.

The lack of job opportunities locally for the women in Somerset is also illustrated in the quantitative survey data on the location of women's employment. As Table 4 shows, women in this case study area were travelling further to get to work than those in other places. Local working is a feature of women's economic activity that distinguishes them from the work life of their spouses (who tend to work further away). In North Devon the patterns of work were even more highly localised with greater numbers of women walking to work than in any of the other three areas; 60% of women worked either in their own villages or in local centres, with only 2% working outside North Devon

Table 4: Location of women's employment

| Location of respondent's employment | % of respondents in employment | | |
|-------------------------------------|--------------------------------|-----------------|-----------------|
| | <u>Wiltshire</u> | <u>Cornwall</u> | <u>Somerset</u> |
| Locally (within 5 miles) | 60 | 56 | 29 |
| Within the County | 16 | 40 | 54 |
| Further afield | 22 | 4 | 17 |
| Total | 100 | 100 | 100 |

Source: Little and Morris, 2002; Morris and Little, 2004

Some interviewees discussed the lack of choices available for women living in Somerset and argued that it was for this reason that there is limited transit between jobs; why women work for the same employer for a relatively long period of time. As one, Gabrielle, remarked:

I think you have got to make the organization work for you and try and find the best type of job you know a little niche in that organization that you can develop to be happy with.

In short, there is a tendency it would seem for women in the case study areas to be ‘making the best of it’ and adjusting downwards their job aspirations in the light of knowledge about the local labour market, and placing more emphasis on working for the money or as something to do, rather than ‘building towards a career’. Interestingly, the lack of employment choice appears, for some at least, to be compensated for by the quality of life in rural areas. Paula (from Churchinford), for example, argued that *‘the social life of a village makes more difference to a person’s lived experiences than the job opportunities available’*.

Constraints on paid work

Both the surveys and interviews with women identified a range of factors that shapes and influences their employment decisions and choices. Only one of these will be illustrated here; the domestic division of labour and other household factors². Previous research on rural women’s employment has suggested that paid employment is less significant for some of them than work undertaken in the home and community (Little, 1997b). This has been shown to be a product of active choices made by women who regard rural communities as places to escape the rat race and social pressures to pursue a career³, but also the outcome of more traditional attitudes held by rural communities which place women in the home and community and not in paid employment. The regional data presented above imply that this is likely to be changing and indeed the interviews with women revealed that paid employment is increasingly important to women’s sense of identity as well as materially. Nevertheless, it was apparent that factors relating to the operation of the household were shaping women’s employment choices to a greater or lesser extent.

In spite of rising rates of employment, all of our surveys revealed that women continue to shoulder the majority of the burden of domestic work, as the following table demonstrates.

² Other factors included the traditional attitudes of rural communities; transport; and the skills and qualifications held by women.

³ This demonstrates that the household is not necessarily a *constraint* on employment participation. some women, because of the financial security provided by family, partner or spouse are able to make *choices* about paid work that other women in less fortunate situations could not.

Table 5: Women’s contribution to domestic labour

| Proportion of housework | % all respondents | | |
|-------------------------|-------------------|----------|----------|
| | Wiltshire | Cornwall | Somerset |
| All of it | 51 | 63 | 33 |
| About 75% | 22 | 25 | 23 |
| About 50% | 16 | 9 | 17 |
| About 25% | 9 | 3 | 8 |
| None of it | 2 | 0 | 1 |
| No answer | n/a | n/a | 18 |

Source: Little and Morris, 2002; Morris and Little, 2004

Although nil responses affect the Somerset data, these women seem to be less likely than their Wiltshire and Cornish counterparts to do all of the housework (a reflection perhaps of relatively high employment participation rates among Somerset survey respondents). However, the figures in all the other categories are very similar, suggesting that the situation in this rural area is not significantly different to elsewhere. It is not possible from these figures alone to say to what extent involvement in domestic work directly impinges upon women’s paid employment participation (although there are one or two examples from the interviews which do suggest a direct and negative relationship), but they do reveal the continuing importance of unpaid domestic work for rural women.

Probably the most significant household factor shaping women’s paid employment is having children and finding childcare. Of the women surveyed in Somerset, 35% indicated that children had impacted on their decision-making about paid employment, with 21% stating that they had influenced the type or duration (i.e. full or part-time) of work. For a further 10%, children had delayed their return to work and influenced the location of work for 4%. As an illustration, one woman, not currently in paid work said: *“I wanted to be sure I was around to bring the children up and support them at school. I will return to part-time work when my son has reached full-time school age”*. Meanwhile, the manager of a human resources function in a public sector organization argued that she had felt unable to give up work when she had a family because she was afraid that the local labour market would not be able to provide the same opportunity on her return: *“I decided to continue working to maintain my professional position. I didn’t think I would be able to secure another professional post locally if I left employment”*.

Compared with the other case study areas, a much smaller proportion of women in Somerset stated that they encountered childcare difficulties, in spite of them being much more likely to have a paid job if they had children under 16. While 15% of women in Somerset said they encountered childcare problems this

compares with 24% in Wiltshire, 40% in Cornwall and 44% in Devon. A variety of problems were highlighted (the significance of which tended to vary between the study areas), including: availability of suitably located, good quality and affordable childcare; childcare during the school holidays; lack of flexibility in childcare provision; dealing with childcare when a child is ill (and therefore unable to attend nursery or school) or when their family carer is ill; a lack of family support locally; and lack of suitable care for slightly older children. The relatively favourable situation with regard to childcare observed in Somerset may reflect a situation observed by one respondent: *“With more emphasis on women working, pre-school facilities have improved locally over the last few years”* (52 year old woman, in part time paid work, living with husband and 16 year old son). It is certainly the case that in the Blackdown Hills childcare provision has been improving in recent years, and in other rural parts of the county, with the Early Years Department in the local authority and Sure Start ‘increasingly strong’. However, in spite of this relatively more optimistic picture of provision, one Somerset service provider was clear about the situation:

‘While the biggest barrier to getting women back to work in this type of rural area with a dispersed population is childcare (at least for those with children of primary school age and younger), it’s difficult to know how more can be done’.

The shifting relationship between community / voluntary and paid work

Although often unrecognised, the voluntary work undertaken by women for their communities has been shown to play (at least in the past) a vital role in the operation of rural communities and the households which comprise these communities. As one questionnaire respondent in Somerset remarked, *“I think there’s a lot of volunteering to be done in rural communities – and women get to do a good share”* (47 year old woman, working part-time in family business, living with partner and two young children). The proportion of survey respondents undertaking community work did not vary greatly across the four case study areas, with the figures for Cornwall, Wiltshire, Somerset and Devon being, respectively: 26%, 39%, 36%, and 33%. Children oriented activities such as helping out at the school or at toddler groups appeared to be the most common form of community work.

Most significant perhaps for rural communities, 20% of women surveyed in Somerset indicated that the amount of voluntary work they were doing had decreased in recent years (whereas only 10% said they were doing more). The situations of, and comments made by, the following women on their questionnaire returns begin to reveal the inter-play between paid and unpaid community work and how this might be changing. One respondent indicated that she have given up a role in another voluntary organisation (she is currently trustee of a small voluntary organisation) because of increased workload in her

paid job (58 year old woman, in paid work, living with retired husband). Another stated:

I would like to get involved in voluntary work but with a full time job, large house and garden, family constraints [the respondent indicated that she cares for a sick / elderly relative], I do not have any spare time (56 year old woman, in paid work, living with husband).

The interviews with women sheds more light on the relationship between women's paid employment and their unpaid work in the community, as well as their wider participation in community life through, for example, their leisure activities. There was a sense that an increase in paid work was definitely having a detrimental impact on voluntary work. Violet, who lives in Churchinford, claims that she is happy with her level of involvement in village events at the moment, insisting that she does not have time to contribute more to the village because of her work commitments and leisure interests. If she did have more time she claims that she would consider attending a keep fit or yoga club in the village.

Meanwhile, Gabrielle, is a single woman and does not take part in anything in the village. She says that she possibly would if she worked part-time or simply had more time to dedicate to such activities. She described how she tends to go to Taunton to take part in social activities, although sometimes goes to Wellington (to the gym) or Honiton (for swimming). She claims that she socializes with her work colleagues in Taunton because this is where they live and it is easier for her to go to them. She sometimes uses the village pub but claims that she would not go there for a drink on her own as she prefers to open a bottle a wine and watch the television at home. Dorothy laments the lack of a community spirit in Staple Fitzpaine. She thinks that most people who live there work in Taunton as nurses, shop assistants and / or office workers, and that this dictates their friendship circles. Her observation is that the women who live there are very busy and hence do not have the time to 'join in'. She also imagines that when these women get home they want to stay at home - their home is their sanctuary (as indeed Gabrielle's experience suggests):

Most women have to work these days, or perhaps they want to work and nobody seems to know any one, not like years ago which is a shame again you know 'cos having lived on a farm and you knew all your neighbours and would help each other out you know if your tractor didn't work they would lend you their tractor, etc, etc ... everyone is always stopping me and asking me where does so and so live and I think I don't know and sometimes it's a person just here.

Reflections on the Four Research Projects and Some Policy Messages

Compared with the RDC study back in the early 1990s the situation with respect to rural women and their contribution to the economic life of rural areas is clearly changing. Overall, it would seem that rural areas are ‘gaining ground’ in relation to broader trends in women’s employment and that this is particularly the case in terms of levels of involvement in paid work, and the kinds of work done, for example, the increase in professional, associate professional and managerial employment. However, the relatively high levels of part-time working and low wages in local jobs suggests also that there is a polarization in employment experience, and an emergent two-tier rural economy as far as rural women’s employment is concerned. This differentiation exists within the region as a whole i.e. east to west, but also within individual communities wherever these are located. As such, it may make less sense for service providers and policy makers to think about ‘rural women’ as a general group and more sense to talk about particular groups of rural women with particular employment needs.

The proportion of women experiencing difficulties with childcare differed quite considerably between the study areas and so did the patterns of childcare, with family members predominating in Cornwall, childminders in Wiltshire and school / pre-school clubs in Somerset. What was evident in all three areas, however, was the relatively limited input into childcare by husbands and spouses. While there was a sense, at least from the Somerset context, that childcare has been improving in recent years, the fact remains that appropriate forms of childcare are still missing or are inadequate. However, the challenge here is not simply related to identifying and developing targeted and locally sensitive solutions to the childcare issue. There is a need to think more broadly than this. While women can create employment for themselves and others through providing childcare this is typically low paid and perpetuates the problems of low wages in this sector and in rural areas in general. Moreover, rather than continuing to link childcare issues with women alone we need to think beyond the assumption that this is just a ‘woman’s issue’.

The research has shown that constraints on rural women’s labour market participation are rarely of one kind, but reflect a bundle of related difficulties typically comprising lack of suitable childcare, limited public transport, costs of private transport, low wages as well as some factors seemingly unconnected with the labour market, such as the traditional nature of rural society. There is a need therefore for a holistic response by service providers and policy makers that takes on board the interconnectivity of issues facing women in accessing paid work.

Finally, it is apparent that increasing levels of paid work among rural women (alongside broader trends in society which place more emphasis on the individual than the collective) are affecting the amount of unpaid labour that they

can offer to their communities. This is an interpretation endorsed by paid staff within the voluntary sector who have identified a more widespread problem of recruiting people into voluntary work in the region. We can only begin to speculate on the implications of this trend for the social and economic vibrancy and sustainability of rural communities, but it is an issue that may be worth further investigation in future analyses of the region's economy.

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Global Action Plan: Promoting Rural Sustainability?

Stewart Barr and Andrew Gilg

Introduction: sustainability, policy and behaviour

Environmental action, and more broadly ‘action for sustainability’ has become a central element of the government’s agenda for tackling a range of environmental and social problems that face both British and overseas societies. As a means by which to achieve broad policy goals, such as carbon dioxide reduction, cutting traffic congestion and waste reduction, the government has used exhortation as a major tool to encourage people to curtail their behaviour that causes such environmental problems. Exhortation is the first measure available to policy makers, who will progressively move to incentives, penalties and finally regulation to ensure behaviour change.

A range of campaigns have been launched to encourage environmental action, the most well-known being the *Are You Doing Your Bit?* campaign supported by DEFRA. This campaign exhorts individuals to save energy, conserve water, cut waste and consume in a more sustainable manner. However, such attempts to engage citizens in these types of behaviour are necessarily state-led and national in nature, with little account taken for local circumstances. The messages are broad and are communicated by media such as television, radio and the national press. Recent interest has grown, however, into how environmental action might be encouraged by using locally-based and grass-roots tactics to engage individuals. This chapter focuses on one such attempt within the context of a wider research project on environmental action and shows how behaviour change might be encouraged by using such methods. In doing so, it builds on our chapter in the 2003 Annual Review (Barr and Gilg, 2003).

Global Action Plan

One example of the grass-roots and locally-based approach to environmental action is provided by the charity Global Action Plan (GAP) which has been very active in Devon for a number of years (www.globalactionplan.org.uk). Put succinctly, the aim of the charity is to create:

“...environmental and social change. We engage people and communities in dialogue and practical action, taking into account social and financial constraints” (GAP, 2000a, p. 2).

Global Action Plan (GAP) is unique in a number of important ways. First, it is a charity that seeks to incorporate the three fundamental pillars of sustainability: environmental protection and preservation, economic development and social progress. Second, it works with individuals, communities, schools and business. Third and most significantly, its ethos is different from many environmental

organisations. Instead of focusing on doom-laden scenarios of environmental catastrophe and the life-changing shifts in behaviour needed to avert disaster, it strikes a more realistic and achievable goal of promoting small-scale actions that, if taken by most people, will have a significant impact on the environment.

Indeed, GAP differs in one more crucial way from national state-led campaigns. It strives and succeeds to be mainstream. It is a slick organisation where business suits are the vogue, not the stereotypical beards and sandals. Some of its promotional literature serves to demonstrate this point:

“You don’t have to chain yourself to a tree to be green. *Action at Home* [campaign name] recognises that most people lead busy lives and want advice on making small changes that won’t make life more difficult, but will make a difference to the environment” (GAP *Action at Home* leaflet, 1999a).

Changing environmental behaviour is seen as an incremental process that individuals should engage with:

“Actions begin with the very simple – like turning the tap off when you clean your teeth to save water, or not braking sharply in the car to cut down pollution. And they end with actions which take a bit more thought, but make a bigger difference – like how to make a compost heap in the garden, or reduce your bills by getting rid of draughts” (GAP *Action at Home* leaflet, 1999a)

This ethos is extended to the business sector, where small changes are sold as benefiting the company financially and in terms of marketing their environmental credentials, underpinned by a reminder that environmental legislation now impacts on all businesses:

“Like it or not, there is increasing pressure for small businesses to improve their environmental performance...We realise how busy you are and have developed the workshops accordingly. They are brief, held locally and designed to maximise the benefits to your company” (GAP *Environmental Champions* leaflet, 2000b).

However, there is more than an environmental or financial edge to GAP; socially, the charity has developed programmes to reduce poverty. Examples are the *Action in the Community* programme and the *Small Change* programme that seek to explore and tackle the links between poverty, the environment and ill health:

“It aims to help young people and families in disadvantaged communities to use energy more effectively, eat more healthily and reduce pollution” (GAP *Small Change* leaflet, 1999b).

Recently, GAP has further extended its influence by publishing a nationally-available magazine called *Ergo*, which continues its theme of mainstream communication techniques with hints and tips on how to live more sustainably.

Action at Home

Until recently GAP’s work was focused around a programme known as *Action at Home* where individuals voluntarily signed up to a programme of behavioural change that was supported by the charity through practical advice and evaluation. The focus at the individual level was centred on reducing energy use, saving water, cutting waste, green consumption and transport use. The literature associated with this programme illustrates the types of activities being promoted. The following recommended actions act to illustrate the practical, linguistic and semantic dimensions of *Action at Home*:

- Keep to the speed limit! It’s safer and less polluting (GAP, 1998);
- Keep that water in the soil. Watering plants in the evening gives the water chance to soak down to the roots instead of evaporating in the heat (GAP, 1999c)
- Choose items with minimal packaging that can be recycled (GAP, 1999d).

These actions and many more are promoted as practical and logical. They are not only seen in the context of environmental issues, but in a wider context. The key question that underpins *Action at Home*, however, relates to how far this strategy, which is personalised, local and practical, actually changes attitudes and behaviours towards helping the environment. Is it more effective than the state’s promotion of environmentalism and could such a strategy provide a new framework for engaging people in sustainability?

Environmental Action in the Home

Global Action Plan formed a significant component of research that was undertaken as part of a large Economic and Social Research Council (ESRC) project examining environmental action in and around the home in Devon (Barr and Gilg, 2003; Barr *et al.*, 2003a, 2003b, 2003c). The main findings of this research were reported in last year’s Annual Review. This research sought to examine the extent to which Devon households were engaging in a range of sustainability-related behaviours, such as energy saving, water conservation, recycling and green consumption. The research involved surveying 1600

households in Devon to examine their behaviour, attitudes and the reasons they did (or did not) help the environment. Of the 1600 households surveyed, 79% returned their questionnaires. In addition, the research sought to examine what differences there might be between this large sample of households and those individuals who had participated in GAP's *Action at Home* programme in Devon. The logic behind this comparison sample was to examine whether those individuals who had been exposed to a locally-based and personalised environmental campaign were more likely to engage in environmental action, as compared to the main sample, who had only been exposed to national or regional publicity campaigns. The number of GAP household surveys collected was 160, 40% of the total number in Devon.

What difference does GAP make?

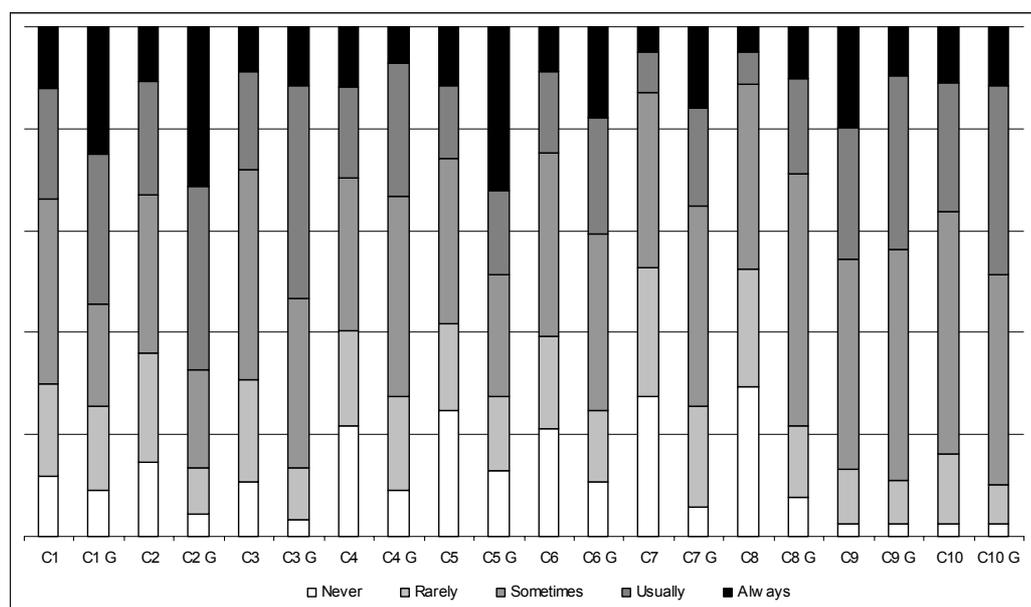
The large amount of data generated from the research necessitates that many of the results cannot be reported here, but we might take a snapshot view of the differences between GAP members and the main sample by examining two key environmental actions that have been highlighted by government policy, namely green consumption, and recycling and waste reduction. Figure 1 provides an examination of the differences between the frequency of green consumption between the main sample (C1, C2, etc. on the *X* axis) and the GAP sample (C1G, C2G, etc. on the *X* axis).

It is clear that for a number of the behaviours, the GAP households were more likely to engage in such activities than the main sample. Of particular note are items relating to the purchase of environmentally-friendly detergents, avoiding aerosol products and buying recycled products. GAP households were significantly (in statistical terms) more likely to purchase these items and in a number of cases there was a substantial difference in the order of 30% to 40% between those in the main and GAP samples who 'usually' undertook these activities. However, the most important distinctions can be drawn between the differences that occur between the two samples in terms of their participation in buying organic produce and fairly traded products. Almost all of the GAP sample had bought organic and Fair Trade produce at some point, whilst these figures were significantly reduced when looking at the main sample. In contrast, the use of local shops and the purchase of local produce was similar between the two samples.

These data provide a number of interesting insights into both the state of local action for sustainability and also the role of GAP in promoting behaviour. The environmental message appears to have been clearly communicated, with the emphasis on reducing the use of harmful detergents and aerosols. This is also the case with regard to the support of burgeoning markets for recycled products, such as toilet tissue and paper, and the continuing growth in organic products. However, whilst Fair Trade is reasonably popular, the other social dimensions of green consumption that we measured were less popular, such as using a local

food store and buying local produce. Such a finding corroborates our findings in last year’s review, in which we highlighted the need to more fully appreciate green consumption in terms of the varying definitions and assumptions surrounding this form of behaviour. However, a more positive point can be gleaned from the data, which clearly show that GAP policies can have a real impact, especially with regard to environmental activities. Such evidence would appear to support the assertion that locally-based activities can have a greater impact.

Figure 1: Recycling and waste management behaviour in the main and GAP samples



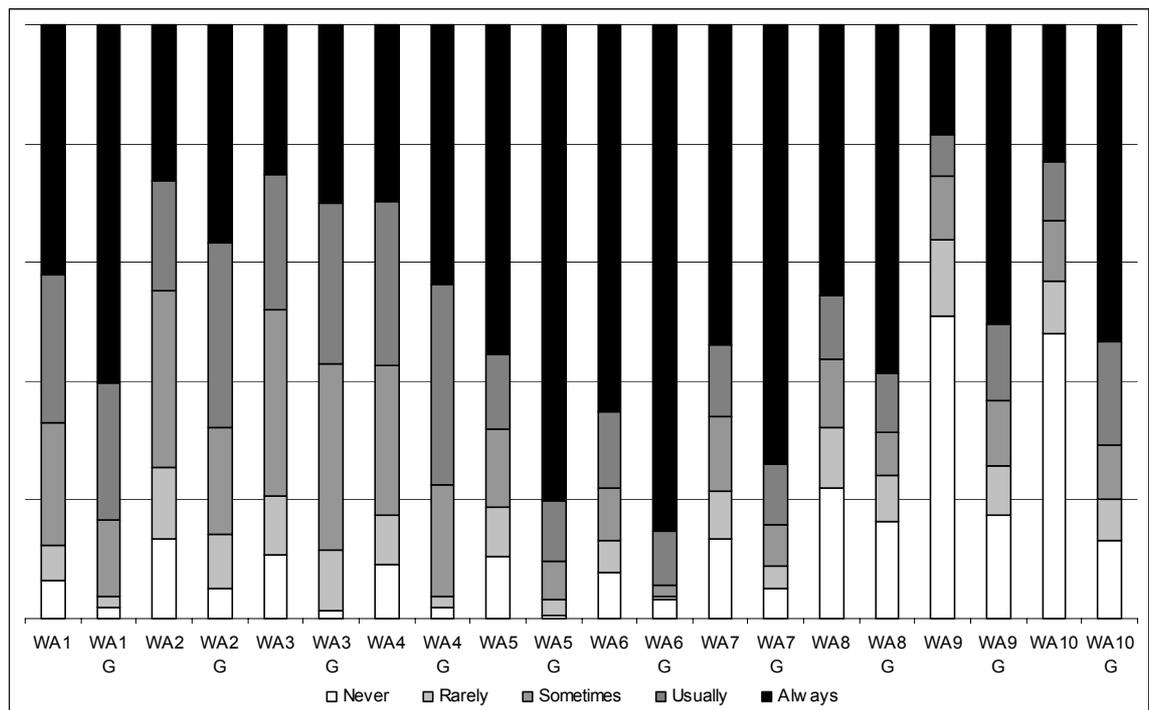
| Label | Item |
|-------|--|
| C1 | Use environmentally friendly detergents |
| C2 | Avoid aerosol products |
| C3 | Purchase items with as little packaging as possible |
| C4 | Use own bag when shopping, rather than a plastic one |
| C5 | Buy recycled toilet paper |
| C6 | Buy recycled writing paper |
| C7 | Buy organic produce |
| C8 | Buy FairTrade products |
| C9 | Use a local food store |
| C10 | Buy local produce |

Note: columns with a G on the X axis relate to GAP members.

A second area of interest is recycling and waste management. Figure 2 provides a similar analysis of behaviour to that in Figure 1. In a number of cases the

differences become even starker between the two samples. The most impressive difference is seen with regard to the final two items on the graph, notably composting kitchen waste and garden waste. In the main sample, 50% or more the respondents never composted such wastes. However, this was reduced to under 20% for the GAP sample. Indeed, Over 50% of the GAP sample always composted their waste. Less stark, but impressive differences are also seen with regard to donations to charity shops and recycling materials such as newspapers and glass.

Figure 2: Green consumer behaviour in the main and GAP samples



| Label | Item |
|-------|---------------------------------------|
| WA1 | Take clothes to charity shops |
| WA2 | Donate old household items to charity |
| WA3 | Reuse glass bottles and jars |
| WA4 | Reuse paper |
| WA5 | Recycle glass |
| WA6 | Recycle newspaper |
| WA7 | Recycle cans |
| WA8 | Recycle plastic bottles |
| WA9 | Compost kitchen waste |
| WA10* | Compost garden waste |

Note: columns with a G on the X axis relate to GAP members

* Only those with gardens could answer this item

All the differences were highly statistically significant. Three important points can be made from these data. First, the level of behaviour is far higher for both groups in comparison to green consumption. This demonstrates the widely-held view that recycling is regarded as normative behaviour in society and that the challenge for policy makers has shifted towards changing consumption practices. Second, recycling is particularly popular with nearly all respondents, with over 50% in both groups recycling all of the time. More challenging for policy makers are activities such as composting and other recyclable items. Third, the difference between GAP and the main sample is impressive and demonstrates the efficacy of their approach in engaging citizens in sustainability behaviour. This is most significant with regard to composting, where a fairly marginal activity has evidently been promoted effectively.

Does GAP work?

The evidence provided here would appear to show that the GAP households in our sample were indeed more environmentally friendly. However, such a conclusion, whilst being correct in statistical terms, must be qualified by an examination of the households engaged in the GAP programme. Despite efforts to focus on less wealthy households, GAP still appears to be a fairly middle-class organisation. Accordingly, one might make the assertion that those most interested in environmental issues would be most likely to join GAP. An analysis of the make-up of the sample of GAP respondents that we surveyed will help in this assessment. Although demographic characteristics such as age, gender and household size did not vary between the two samples, there were significant differences relating to a range of other demographic factors, which can be summarised along the following lines:

- GAP members had more formal educational qualifications, with 56% of members having a degree, whilst just 17% of the main sample had such a qualification;
- 45% of GAP members earned over £30,000 a year, compared to just 10% of the main sample;
- 89% of GAP members were home owners, compared to 79% of the main sample;
- 65% of GAP members lived in detached or semi-detached homes, whereas 33% of the main sample lived in these types of homes.

These statistics point to an affluent group of individuals who live in large homes and who are highly educated. This finding demonstrates that GAP's main target audience is without doubt the stereotypical middle class individual. However, to logically argue that such individuals are the ones most likely to engage in environmental action in general is not necessarily the case. Analysis of the main sample indicates that those most committed to the environment were on below-average incomes and tended to live in smaller dwellings. Accordingly, whilst

GAP may have tapped a distinct market, it may be one that requires significant help. Indeed, the motivation of those respondents involved in the GAP programme is demonstrated by the fact that whilst most GAP members recycled all of the time, only 46% of them had access to kerbside recycling, whilst this service was available to 76% of those in the main sample, who had a lower recycling rate. Further interrogation of the data set is required to examine the specific motivations for participating in environmental action, but it would appear that GAP does have a role to play in encouraging individuals to enhance their environmental action.

Global Action Plan to Local Action Plan?

Global Action Plan does appear to have a role to play in engaging citizens in positive actions for sustainability. Significantly more individuals were engaged more often in environmental actions if they had undergone the *Action at Home* programme. Whilst more research is needed to assess its impact on specific activities, it is clear that the impact has been important in changing the behaviours of the individuals surveyed. Despite GAP having a stereotypically middle-class composition, the research would suggest that the role of locally-based and contextual environmental action is significant. The wider research project has identified a number of different types of individuals least likely to engage in environmental action, who tend to be young, male, poorly educated and on very low incomes. They are politically apathetic and conform to a distinct social group in society. Just as GAP have tacked their group of middle class individuals, it may be that such programmes need to be more tightly focussed on the least advantaged in society, focussing on the relationship between sustainability and problems such as fuel deprivation.

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The Political Geography of EU Agricultural Policy Adjustment

Michael Winter

Introduction

The aim of this paper is to provide an historical context to policy reform and agricultural adjustment within the EU. This is an ambitious task given the long time period and extent of political change during which policy has evolved. As such, a short paper needs a sharp focus even if its scope is broad. My focus is on what I have termed ‘political geography’. It seems highly appropriate to refer to geography in the context of agriculture because spatial variation lies at the heart of the policy challenge presented by agriculture, although this simple truth is not always acknowledged in policy debate. And space is also ‘political’ – it is organised into territories at different scales (nation, state, region, locality) and subject to varying jurisdictions. Moreover, it is political geography in a broad sense that lies at the heart of contrasting policy imperatives over time and space. I would argue that a political geography approach allows us to interrogate agricultural policy from outside the narrow confines of an introspective agricultural policy debate. Thus, in providing, as I have been invited to do, a view of the history of adjustment in the food and agriculture sector in the EU, I wish to avoid the type of account – and mercifully they are fewer now than they used to be - that assumes that understanding agricultural adjustment requires no more than an econometric model factoring in commodity market and policy signals.

The approach I have chosen renders problematic a presentation covering the whole of the EU. My position, with regard to understanding food and agriculture, is to disdain the broad-brush overview of policy and adjustment that can be traced from EU official documentation because such aggregation so profoundly fails to address issues of political geography. As Murdoch and Ward (1997) have demonstrated for the UK, at a national level these macro statistics create false abstractions which hide underlying realities. But of course, these abstractions are in themselves political constructs and therefore are of great relevance to understanding what drives policy. So I am happy to talk about ‘EU agricultural policy’ or ‘EU agricultural politics’ but I am not prepared to conceptualise an ‘EU agriculture’, for there are many agricultures in Europe. Inevitably, therefore, I will draw examples, from specific places and because of my own research circumstances those places will tend towards the UK, and within the UK to England, and in England to the South West, and even within the South West to the county of Devon. And, yes, a small county has its own political geography of contrasting sub county local governance, spatially differentiated access to EU structural funds, differentiated market access and opportunity. And all this is mapped on to what used to be called ‘agricultural geography’ – the spatial variations of soil, topography, climate.

A Vignette of Policy Adjustment: A Long View of the UK Experience

This section draws on my work on the history of agricultural policy carried out in the early 1990s (Winter 1996). A political geography of the UK's experience of the Common Agricultural Policy (CAP) within the European Union has to start not with the UK's accession in 1973, nor with the Treaty of Rome in 1957, but a century earlier with the repeal of the Corn Laws in 1846. These protectionist laws, which dated back to the Middle Ages, presented a barrier to imports, of particular concern in years of shortage, such as during the bad harvests after 1836, which resulted in increases in bread prices. The fundamental issue at stake was the gathering political confrontation between the traditional landed interest and the urban-based interests of industry and commerce, dedicated to notions of free trade. The latter garnered some support from the embryonic labour movement concerned with consumer prices. The repeal of the Corn Laws represented the arrival, both politically and economically, of the new industrial and commercial interests. Thus, half a century later, Britain's early industrialization, and the consequent shifts in political power, put it in the position of resisting agricultural protectionism when so many other European countries adopted, or strengthened, that position in the 1880s and 1890s (Tracy 1988). This resistance held until the First World War. Michael Tracy (1982) suggests seven main reasons why the UK, alone among the major European powers, failed to adopt protectionist policies for agriculture during the late nineteenth century:

- Britain's lead in industrial production which favoured free trade;
- The influence of economic theorists such as Ricardo and Adam Smith;
- The political legacy of the anti Corn Laws agitation;
- The strength of the British navy;
- The food production of British colonies;
- The relative political weakness of the landowners as a result of democratic reforms;
- The absence of a coherent and united agricultural pressure group as a result of divisions between landlord and tenant and between arable and livestock farmers.

I would add a further point, linked perhaps to the final one: the absence of a significant peasantry in most parts of Britain. With a few regional or local exceptions, such as in parts of northern and western Wales, a politics built around the peasant interest did not develop in mainland Britain. Ireland, of course, offered a stark contrast, one that contributed to a war of independence. The influence of the peasantry on the politics and culture of other European lands, notably of France, casts as long a political shadow as does Britain's own history of agrarian capitalism.

Each of the factors set out by Tracy came under challenge in the early twentieth century, not enough for us to disregard their lasting legacy but enough to modify Britain's approach and, indeed, to make the agrarian question, if not politically contentious, certainly on the edge of some wider political issues of considerable contention. The protection of agriculture in mainland Europe emerged either from a largely radical, albeit retrospective, peasant politics, or from economic imperatives associated with the rise of new specialized commodity production. In some countries, such as Denmark and the Netherlands, the latter was the main driver as 'progressive' politicians sought to protect market position. In others, such as France, the two forces combined – uneasily - and the influence of these twin drivers can be seen in the CAP as it emerged in the 1960s, and in the constellation of agricultural interest groups in both France and the pan-European farmers' organization, COPA.

In Britain, the emergence of protectionism had quite different origins. The principles of free trade came under attack from some in the Conservative Party in response to a perceived need to promote preferential trading relations with the colonies of the British Empire rather than a desire to protect home production *per se*, whether of agricultural or industrial commodities. The dream of industrialist-politicians, like Joseph Chamberlain, was that the Empire as a whole would become a trading entity competing against other nations and protecting itself from 'unfair' competition through its own internal preferential arrangements (Zebel 1967). In addition, an important element was the increasing need to raise revenues for public welfare and military expenditure (Cain and Hopkins 1993). Thus the tariff reform movement led by Chamberlain represented a coalition of industrial interests, Empire enthusiasts, and the interests of those with landed wealth, offering "a programme of 'social imperialism' designed to unite property with labour in the cause of empire and to head off the formation of a mass party dedicated to socialism" (Cain and Hopkins 1993: 203).

The judgment of the electorate was emphatic – the Conservatives lost heavily in three successive general elections in the first decade of the twentieth century to free-trade Liberals. Agricultural protection was dead; the divergence from the rest of Europe stark. It was rather less so after 1914 when Britain's navy and its colonies proved inadequate to preserve food security. Protection, or at least major market intervention, came about as a result of warfare but was rapidly dismantled after the 1914-18 War. Thus, by 1921 price guarantees and state control had been disbanded; land reform had floundered through indifference and lack of cash; imperial preference was no longer on the political agenda. Politics was increasingly urban dominated and a party with no clear agricultural roots at all, the Labour Party, was now a force that could not be ignored. Superficially, the circumstances hardly seemed propitious for policy intervention in agriculture. Indeed the key changes appeared to be internal to the sector and responsive to markets. Agricultural re-structuring in response to market pressure occurred in both the 1890s and 1920s, in the former period largely through a shift from

arable to specialist livestock production and in the latter through the break-up and sale of landed estates to tenants.

But something else was happening too - the increasing complexity of the state's involvement in the industrial capitalist economy amounted to a clear and dramatic transformation of society and polity from the Edwardian era. Thus Tomlinson outlines the rise of a "managed economy", showing how by the 1950s the economy was managed in "a manner inconceivable in 1900" (Tomlinson 1990: 9). Middlemas (1979) talks of the emerging "corporate bias" in politics, as the government increasingly drew upon the experiences of business and the unions in the management of the economy. And Runciman (1993) has identified a shift from one sub-type of capitalism to another, with the 1914-18 War as the watershed. It was these fundamental changes that provided the basis for a new-look agricultural policy, with agriculture becoming as much part of the managed economy as other sectors and modernizing influences predominating in the approaches of all political parties. The dominance of the new urban-industrial politics meant, not that agriculture was forgotten but, that it was treated to the same logic as the rest of the economy. Thus Andrew Cooper (1989) has demonstrated convincingly how during the 1920s the Conservatives threw off the legacy of what he terms "agrarianism", the belief that many more people could be employed on the land through the promotion of a new class of yeomen farmers, the Tory version of land reform. With the shedding of such romantic notions, notwithstanding the ruralism that continued to pervade much Conservative rhetoric, the way was opened for pragmatic economic management policies aimed at improving agriculture's contribution to the economy as a whole.

An emblem of this new approach was the Milk Marketing Scheme of 1933, which ultimately came to be seen as a bastion of unacceptable market distortion, so much so that under pressure from the EU it was repealed in the 1990s. By reducing, through common pricing, the impact of differential proximity to markets, the Milk Marketing Board had a marked impact on the spatial distribution of dairy production. For example, the county of Devon, relatively remote from large urban markets, particularly in its most remote west and north, shifted its axis of production from beef-sheep to milk, a shift that affected its 'agri-culture' so profoundly, and in terms of returns so positively, for the next half century. But, initially, marketing schemes had more to do with the interests of urban-industrial consumers than farmers, for milk was seen as a healthy food and it was a Labour government which introduced the enabling legislation in 1931 (Cox et al 1990). Nonetheless, the market weakness of farmers also appealed to those on the co-operative wing of the Labour Party, as to some Tories with corporatist leanings. Critical to the success of milk marketing was the National Farmers Union, whose emergence before the 1914-18 War put paid to another of Tracy's barriers to protectionism. Not that the NFU was self-evidently protectionist. In the 1920s and 1930s it was either ambivalent or hostile to direct market interventions but it was fully engaged in the new managerialism, particularly around the issue of marketing (Cox et al 1991).

The 1939-45 War both strengthened the case for policy intervention in agriculture and cemented the role of the NFU in a corporatist-managerialist framework for agriculture. In the 1950s and early 1960s, deficiency payments (as a safety net), capital grants to improve competitiveness (comprising between 40% and 50% of the agricultural support budget), and an emphasis on state sponsored research and extension illustrate the deepening managerialism in agriculture. But as yet there was no full blooded protectionism with the potential to radically impact on world production and trade patterns. In the 1960s, all that was to change for three main reasons. First, the UK began in the 1960s to prepare itself for membership of the European Community and, in particular, the emerging CAP. Secondly, the national obsession with the balance of payments problem and the decline of empire led many to succumb to protectionist import saving arguments. Thirdly, the NFU, largely as a result of pressure from its members, had shed its disdain for more interventionist market measures. The cost-price squeeze of the 1950s, an explicit policy emerging from the corporatist deal between Government and the NFU, was designed to enforce efficiencies and structural change on the industry. Structural change was eventually achieved with remarkable effect – average farm size had remained static for a century until the 1960s when significant amalgamations began (Hine and Houston 1973). But inevitably there was a time lag between policy adjustment and response across the whole of the agricultural sector, and in that time lag smaller farm businesses suffered and political pressure to alleviate that suffering increased. Thus, in 1963 import controls were introduced; the British Government, almost unnoticed, breaching “one of the basic principles of British trading policy since the repeal of the Corn Laws - that there should be an open door for imports of cheap foodstuffs, particularly from the Dominions.” (Wilson 1977: 14)

The ‘Common’ Agricultural Policy

But why such a detailed exposition of just one country’s experience for the century prior to its full engagement in the Common Agricultural Policy? The point I am seeking to make is that each country’s engagement with the CAP is rooted in its unique historical circumstances of politics, culture, economy and spatial organisation. The story I have sketched out for one member state can be paralleled for each. Each nation state, and each sub-region and locale has its own story of ‘difference’ and ‘otherness’ which makes de-constructing the meta-narrative of the CAP such an important task if we are to understand spatially differential policy adjustment both in the past and in the future.

The CAP is at one level a monolith but the ways in which member states have engaged with it, attempted to reform it, implemented it, are far from being monolithic. Few have analyzed this better than the anthropologist John Gray who has shown how the conception of a unified European Community “from a context of national boundaries, wars and political fragmentation required a communal space and common meanings for integration” (Gray 2000: 32):

“The Common Agricultural Policy became the major vehicle for the construction of European communal space and the codification of

European common meanings about agriculture and rural society that could be agreed to by people representing different member states. the Common Agricultural Policy changed the image of the rural from a vague, indeterminate, national context-specific, improvised socio-linguistic practice to an objectified, publicly visible, formalized and generalized Community-wide representation of the rural that has the political advantage of enabling each member state to interpret it in terms of its national interest.” (Gray 2000: 33).

Thus, lest any need reminding, Article 39 of the 1957 Treaty of Rome, provided for a common agricultural policy with the following objectives, and their ordering *is* significant because of the inherent contradictions between them:

- to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular, labour;
- to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
- to stabilise markets;
- to assure the availability of supplies;
- to ensure that supplies reach consumers at reasonable prices.

Gray, building on earlier work by Bowler (1985), shows how the notion of family farming provides a crucial unifying symbol that could be bought into by countries with differing notions of family farming and agricultural structures: “family farming sustains not just rural society, but society as a whole characterized by the ideals of stability, justice and equality” (Gray 2000: 35). Add to these notions the underlying imperative of food security after the experiences of the 1939-45 War, and we have a recipe for a political edifice that has proved unwieldy and hard to reform. Indeed, it is twenty years since the imposition of milk quotas in 1984 marked the first major step in a process of incremental change that has culminated in the current reform package - twenty years of a painful and still incomplete process that has led to sharp differences of opinion within Europe, and between Europe and the rest of the world, around the so-called ‘European model’ of agriculture.

It now appears that the long shadow cast by post-war austerity is shaken. And with that unsettling so the rationale, or perhaps rhetoric, for public sector investment through the CAP has at last been re-cast in the language of ‘environmental protection’ and ‘rural development’. The discourses of ‘food security’ and ‘market management’ have finally been replaced by those of ‘public good’ and ‘competitiveness’. Gray (2000) argues that the 1988 European Commission paper, *The future of rural society*, marks a significant turning point

in this respect, particularly because it began to re-spatialise European agriculture, albeit through a rather inappropriate urban-centric spatial model. Thus the report identifies three spaces of European agriculture: areas close to cities subject to “the pressures of modern life”, “outlying regions”, and “very marginal areas”. This new geography of rural Europe means that no longer is agriculture necessarily seen as the defining feature of rurality:

“... it is also a place for environmental preservation in those areas where the price support mechanisms of the Common Agricultural Policy have led farmers to adopt intensive but ecologically damaging methods of agricultural production ... This representation of rural areas for leisure and environmental preservation continued the moral-reproductive function of the earlier rural fundamentalist image that the Common Agricultural Policy originally envisioned for farming in rural society” (Gray 2000: 43).

Thus the extent to which ‘family farming’ will remain an important symbolic discourse in the new policy arena is questioned, certainly for some areas. Family farming in the UK has never been such a dominant discourse as in some European countries and it is almost entirely removed from England’s Sustainable Farming and Food Strategy, produced in the aftermath of the Foot and Mouth epidemic, where the ‘social’ strand of sustainability is dominated by consumer issues not the cultural and social significance of farmers. However, in the marginal areas, described by the Commission as “rural in the extreme”, where there is a continuing heavy dependence on agriculture, a vision of agriculture still dominated by small scale family farming is presented:

“The word ‘extreme’ is important ... because it is a narrative form of distanciation as well as authenticity. Its use makes poorer agricultural regions ... into a kind of distanced and marginal landscape - a museum-like place portraying the original image of rural space where family farming and a valued form of society continue to exist.” (Gray 2000: 43)

The policies that have resulted from this re-spatialisation of the CAP are usually characterised as a shift from Pillar 1 to Pillar 2; from agricultural production to rural development. But they can also be constructed as a shift from sectoral to geographical policies. The region and the locale figure highly in agri-environment and rural development policies. They do so for a number of reasons.

Re-Spatialisation and the Agri-Environment

The wider European politics of federalism and subsidiarity provide part of the story, as does the more prosaic issue of funding for deprived regions. In the agricultural policy community, as the desirability for mass commodity production diminished, so there has grown the realization that the European

model, if built around public good, should be based on regional and local distinctiveness. This is reinforced by structural policy with Objective 1 and Objective 2 measures allowing for the emergence of new forms of rural and agricultural localism. This policy discourse was mirrored by changes in agro-ecological analysis and interpretation. Indeed the two trends – rural development and environmental protection – are, somewhat paradoxically, mutually reinforcing. Ecologists, and those prepared to publicise, and indeed politicise, their cause had spent the 1970s and early 1980s cataloguing the destructiveness of modern agriculture. The works of the period abound with the data of loss - of hedgerows, herb-rich meadows, jurassic grassland, heather moorland, (e.g. Lowe et al 1986). The unsophisticated critique of farming impacts on the environment led some commentators in the early 1980s to assume that turning off the tap of CAP support would automatically restore biodiversity. However, in the 1990s a powerful new, but rather more subtle, analysis of change emerged. Lamentation over agricultural impacts on particular habitats was replaced by a careful delineation of the relationship between farming systems and a mosaic of habitats and landscapes.

The identification of High Natural Value (HNV) farming systems is evident in a wide range of studies emerging in the 1990s (Baldock et al 1994; Bignal and McCracken, 1996). Research on birds in particular is well developed in the UK. This is largely a result of twin national obsessions in the UK for both gazing at birds and shooting them! Thus much research on birds is conducted and/or funded either through the voluntary bird conservation groups, mainly the RSPB and the British Trust for Ornithology, or the Game Conservancy Trust and much is concerned with agricultural habitats (Parish et al 1994). Thus we have research on the agricultural conditions associated with, *inter alia*, populations of blackbirds (Hatchwell et al 1996), grouse (Hudson 1995), partridges (Potts 1997), skylarks (Wilson et al 1997), lapwing (Hudson et al 1994), and corn bunting (Donald 1997). The difficulties of analysing the precise relations between agricultural conditions and the status of bird populations has been well demonstrated by Chamberlain et al (2000) in work examining time series data for bird populations against a whole series of agricultural variables. The difficulty of using variables established for quite different purposes, the measurement of farm physical or financial output for example, in this way was one of the main findings of this work. Social scientists have joined the fray with attempts to demonstrate both positive and negative interactions between agricultural policy and environmental policy, leading to something of a re-discovery of place-specific policy effect. For example, in my own work on beef cattle in local environmental management (Evans et al 2003).

This re-discovery of agriculture's contributory role to landscape and biodiversity and, in particular, to regional and local distinctiveness has also contributed to the rapidly emerging agenda of regional competitiveness. In the south west of England, for example, the natural environment, primarily a product of agricultural practice, is constructed by the Regional Development Agency and

other regional stakeholders as one of the key drivers of the region's economy and features strongly in the Regional Economic Strategy. Business (re-) location and start-ups in the south west are linked in general terms to counter-urbanisation, in which the attractiveness of the environment is a significant motivating factor (Halfacree 1994, Milbourne et al 2001). In some instances the links between new economic activity and the farmed landscape is more specific, as with tourism and leisure enterprises and with food businesses built around regional, local, or even site-specific brands. This latter development encompasses particularly well the growing sense of place that pervades agricultural and food discourses. According to Murdoch et al (2000), the 'turn to quality' within the alternative food economy, implies an inevitable demand for more "local" and more "natural" foods" and consequently "quality food production systems are being re-embedded in local ecologies. (p.108)" I have argued against the dangers of this approach being taken to imply too simple a convergence of what I consider to be competing strands of quality consumerism (Winter 2002). However, it is clear that for many farmers there is an increasing requirement to focus on on-farm particularities whether for alternative food markets, agri-environment scheme management agreements, or other rural development schemes. Indeed, even for those farmers for whom national and international commodity markets remain central, the market is more differentiated than it used to be with, for example, retailers' quality assurance schemes (Morris 2000) serving to differentiate agricultural space in new ways.

The re-spatialisation of agriculture is partly a result of changes in production and consumption imperatives. It is also an aspect of changes in modes of governance and, in particular, the regionalisation of policy within the wider context of the European project; what Jessop (1997) has termed the *denationalization of the state*, or 'hollowing out', as central state functions and capacities are reorganised territorially and functionally both sub-nationally and supra-nationally. For example, as Ward et al (2003) have commented, "the evolution of the RDA's role in rural development can be understood as a key element of a move away from a national conception of rurality and a national approach to rural policy" (p211). Thus over the past two years, each region in England has drawn up its own delivery plan for the national Sustainable Farming and Food Strategy. And within each region there are sub-regional initiatives too. In the south west the Regional Development Agency has spawned a number of local initiatives. Each county has a Rural Renaissance programme. Smaller communities have been encouraged to produce their own visions and plans through the market and Coastal Town Initiative. The top-down approach to rural development, implicit in Pillar 2 programmes, is now confronting bottom-up versions of rural futures.

Conclusions

What I have sought to do in this paper is sketch out some of the key political and geographical ideas which I consider to be essential or an understanding of policy adjustment. I have deliberately avoided any detailed comment on current CAP reform - the move to the Single Farm Payment and cross-compliance, the notion

of de-coupling, and the 'return' to the market. I consider these reforms to be both radical, as opposed to earlier incrementalism, and likely to further national, regional and local distinctiveness. Nor have I considered the countervailing forces of globalization. It may surprise some of you, given the emphasis I have given to spatial variation, that I recognize both the reformed CAP and globalizing forces as of huge importance to policy and structural adjustment in European agriculture. CAP continues to provide the lion's share of public financial resources flowing into rural areas. Globalised markets in both food and input chains are remoulding sectors of agriculture. But it is the overwhelming view of those who have studied globalisation, particularly in the agro-food sector, that responses to these globalizing forces vary spatially. As Cook and Harrison (2003), put it in the very different context of a study of Jamaican food companies, "capitalism is not a monolithic cultural/economic system but is, rather, multiple, fragmented, dynamic, locally diverse/hybrid and peppered with creative possibilities for achieving the (theoretically) unexpected." (pp.313). So, too, in the context of unfolding European policy adjustment, the message from my paper is to expect the unexpected.

Note

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The Impact of CAP Reform on Devon's Agriculture

Matt Lobley & Allan Butler

Introduction

The 2003 CAP reform agreement and its means of implementation represent a radical change to the system of farm support in England. In choosing to deliver the new single payment on an area basis, DEFRA has adopted a deliberately redistributive approach which will have a significant impact on farming in Devon due to the switch from the historic subsidy system to a flat rate, area-based payment.

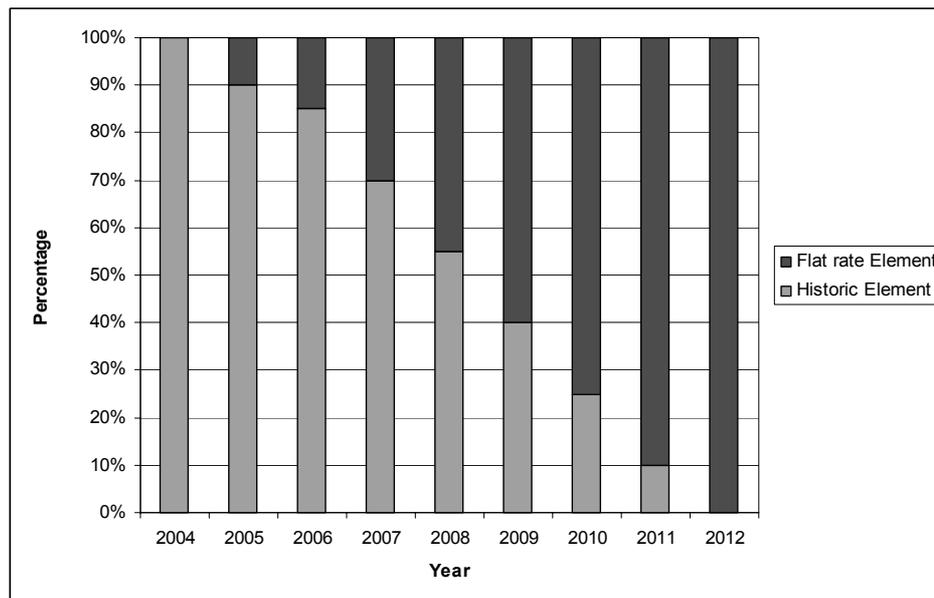
As a follow-up to *The State of Agriculture in Devon* (Lobley et al 2003), Devon County Council commissioned the Centre for Rural Research to undertake a detailed analysis of the possible impact of the 2003 CAP reform agreement on farm incomes in Devon. In order to explore the impacts of the CAP reform agreement, an economic modelling exercise was undertaken and a farmer discussion group convened in order to explore the implications. The data used in the economic model were drawn from the SW Farm Business Survey undertaken annually by the CRR on contract to DEFRA. Within the SW sample, the Devon sub-sample was considered too small to provide a viable basis for the modelling. Therefore, SW data was applied to the farming situation in Devon and validated using agricultural census data (see Lobley and Butler, 2004 for a detailed discussion of modelling methodology and assumptions). In order to explore some of the implications of the CAP reform agreement on farming practices and attitudes to farming, a discussion group was convened with 13 Devon farmers. The discussion group participants were presented with the predicted impacts on NFI for each farm type as a stimulus to discussion. By involving farmers of different ages, operating farms of different types and sizes, the results of the farmer discussion group are indicative of the possible trajectories of change following implementation of the new CAP regime.

The Architecture of the New CAP

From 2005, a 'dynamic hybrid' system for the Single Payment will be implemented as the historic claims element is progressively replaced by a flat rate payment (see Figure 1). The actual payment rates will not be known for some time, but DEFRA estimates that they will be in the following ranges:

- £210-£230 per ha outside Severely Disadvantaged Areas (SDAs)
- £110-£130 per ha within SDAs but excluding land above the moorland line
- £20-£40 per ha for SDA land above the moorland line

Figure 1: Historic and flat rate elements of the Single Farm Payment



The levels of flat rate payments given above are **gross** payments as *modulation* is excluded, as well as the deductions necessary to create the *National Reserve*. In addition, further deductions can be triggered by the *Financial Discipline* mechanism designed to control the CAP budget at the EU level. Modulation will impact on the overall Single Payment three ways: UK modulation, EU modulation and through the Financial Discipline. UK modulation rates will be higher than originally envisaged in the Curry Report, in part because of the need to fund the new Entry Level Stewardship (ELS) scheme. In addition, further cuts are likely via the Financial Discipline in order to control overall CAP spending, fund subsidies in the new member states and to fund further CAP reform. Taking EU and UK modulation together, Devon’s farmers can expect a 15% reduction in their single farm payments. However, this reduction may be even greater if the Financial Discipline element of modulation is accounted for. The Financial Discipline is likely to be required from 2008 (if not earlier). Jones (2004) makes a number of assumptions about the need for the Financial Discipline and suggests that it will start to operate from 2008, rising to over 4.5% by 2013. Therefore, the total modulation rate by 2013 could be nearly 20%.

The Complex Impact of CAP Reform

CAP reform will have a complex impact on farming in Devon. In aggregate terms, the impact on farm incomes is likely to be largely neutral or marginally positive. However, this finding is sensitive to certain assumptions and obscures a complex pattern of winners and losers at the farm level. Excluding potential income from the Entry Level Stewardship (ELS) scheme to be launched in 2005, Net Farm Income (NFI) in Devon could fall by 4% from £60.91 million to £58.47 million by 2013 (Table 1). Widespread uptake (80%) of ELS could reverse this fall and lead to an overall increase in NFI of 2.9% by 2013. In reality,

NFI is likely to fall somewhere between the lowest and highest figures, suggesting a largely neutral impact at the county level. This is because an 80% uptake of ELS may not be realistic and because of the ‘dynamic changes’ farmers make in response to the decoupled single payment. In addition, these figures do not take into account possible receipts from other ERDP (England Rural Development Plan) schemes.

Table 1: The impact of CAP reform on Net Farm Income (NFI) at District level (£m)

| | Average NFI over base years | NFI in 2013 (Excl. ELS) | % change | NFI in 2013 (Incl. ELS) | % change |
|--------------|-----------------------------|-------------------------|-----------|-------------------------|------------|
| East Devon | 10.49 | 9.92 | -5 | 10.81 | 3 |
| Exeter | 0.04 | 0.07 | 66 | 0.07 | 86 |
| Mid Devon | 10.17 | 10.31 | 1 | 11.27 | 11 |
| North Devon | 9.78 | 9.07 | -7 | 9.38 | -4 |
| South Hams | 6.59 | 6.59 | 0 | 7.19 | 9 |
| Teignbridge | 4.28 | 4.41 | 3 | 4.57 | 7 |
| Torridge | 12.16 | 11.50 | -5 | 12.60 | 4 |
| West Devon | 7.40 | 6.60 | -11 | 6.75 | -9 |
| Devon | 60.91 | 58.47 | -4 | 62.65 | 2.9 |

Table 2: The impact of CAP reform on Net Farm Income (NFI) in Devon (£m)

| Farm type | Average NFI over base years | NFI in 2013 | % change | NFI in 2013 incl. ELS ¹ | % change |
|----------------------------|-----------------------------|--------------|-----------|------------------------------------|------------|
| Cereals | 2.47 | 3.64 | 47 | 4.04 | 63 |
| Lowland livestock | 4.12 | 8.58 | 108 | 9.85 | 139 |
| Mixed | 5.00 | 5.44 | 9 | 5.77 | 15 |
| DA ² livestock | 1.21 | 1.49 | 24 | 1.61 | 34 |
| SDA ³ livestock | 6.08 | 3.80 | -38 | 2.63 | -57 |
| Dairy | 34.5 | 27.97 | -21 | 31.02 | -15 |
| Pigs & poultry | 7.53 | 7.60 | 1 | 7.72 | 3 |
| Total | 60.91 | 58.47 | -4 | 62.65 | 2.9 |

¹ Entry Level Stewardship. Assumes 80% uptake

² Disadvantaged Area ³ Severely Disadvantaged Area

Without additional income from ELS, several districts of Devon will suffer a marginal loss of NFI. In West Devon, with a farm structure dominated by LFA and dairy farms, the loss could be up to 11% by 2013. Such aggregate figures, however, mask the complexity of the impact on farms of different types and sizes.

Within the county, as Table 2 illustrates, some farm types will be clear winners (such as cereal and lowland livestock farms). However, in absolute terms, the NFI of both large and particularly small lowland livestock farms remains bleak, even in the longer term, despite the positive increases resulting from the introduction of the single payment. Moreover, for both farm types, farming remains unprofitable without support payments. For all farm types, the more willing and able farm operators are to embrace the market and base their production decisions entirely on market returns, the more positive the impact on farm incomes.

The uplands

Devon's upland areas will suffer significant reductions in NFI. In particular, the outlook for small farms (85 ha) located in Severely Disadvantaged Areas (SDAs) is bleak, with NFI per farm projected to fall to approximately £7,500 by 2013. Cattle enterprises in the SDA will be more adversely affected than sheep enterprises and the future is likely to see a decline in cattle numbers. The predicted falls in NFI are largely a consequence of high historic levels of support coupled to livestock numbers. The final situation will be influenced by income receipts from the Environmental Stewardship Scheme, in particular, enhanced payments under the Higher Level Scheme. Based on the results of the economic model we have calculated that, on average, a single payment of £160 ha⁻¹ is necessary to maintain the present pattern and distribution of farming in Devon's SDAs. The impact on Disadvantaged Area (DA) farmers will ultimately be marginally positive. However, NFI is currently very low and will remain so in the early years of the new system, only beginning to rise at the end of the decade. Given incomes possibly as low as £5,500, only rising to £7,000 in the future, the longer term viability of DA farms is questionable in the absence of substantial alternative income sources.

Dairy Farming

Dairy farming is particularly important in Devon, contributing an estimated 57% of the county's total NFI. Overall, dairy farms are likely to experience a loss in income of up to 21% as a result of the reforms. Small dairy farms (average size 47 ha) will experience a decrease in NFI of some 27%. Large dairy farms on the other hand, could see their incomes reduced by a third in 2006 although NFI is still projected to be approximately £35,389 in 2013. However, while the impact of the single payment and modulation is important, it will be the farm gate price of milk that will shape the future of dairy farming in the county.

CAP Driven Restructuring

The reform of the CAP and its impact on incomes *will* drive further restructuring of the county's agriculture, although there will be a time lag before the full effects are felt. In many ways the new support regime will simply reinforce existing trends. However, across the county the reformed CAP will be faced by farms at different stages in the business cycle, different stages in the life cycle, and farms with different endowments of capital, skills, knowledge, etc. Farmers and their households are likely to differ significantly in their ability and willingness to adapt to the new market-oriented policy environment.

At the time of conducting the research (April 2004), there was still considerable confusion and uncertainty amongst the farming community regarding the precise details of the new support system (e.g. value of single payment, cross-compliance conditions, etc.) and rather than rush in to restructuring decisions, many were adopting a 'wait and see' approach. Some indicated that they would simply meet cross-compliance conditions and live off their single payment, while others planned to adopt a more active response, intending to continue farming but simplifying and extensifying their business. Both approaches have implications beyond the farm household, such as for the environment and supply and processing sectors.

In cases where small dairy farmers, for instance, cease active farming and simply meet cross-compliance conditions, the less intensive management of land is likely to be beneficial. Cross-compliance rules allow for land to not be actively farmed as long as thick scrub is not allowed to develop and the land is grazed or cut at least once every five years. While these (and other) conditions are designed to allow land to be quickly returned to agricultural production it could nevertheless create opportunities for 'semi-wilding' which in turn, may cause concern for some if the countryside takes on a less managed appearance. In cases where simplifying the business involves going out of beef production, conservationists would have concerns about sward management if the ratio of sheep to cattle increased (the latter produce a less uniform, tussocky sward which is valuable in conservation terms). Ironically, in the uplands, future concerns could revolve around issues of under-grazing rather than over-grazing, although it will take some time to discern if under-grazing will become widespread.

These strategies also have implications for employment on farms; that is likely to continue to decline. There may be an increase in the use of contract labour, though, which raises concerns about the 'level of care' applied to land management activities. More positively, where farmers decide to withdraw from active farming and only meet cross-compliance conditions, there could be opportunities for new entrants willing to meet the challenge of farming without subsidies. The injection of entrepreneurial, 'new blood' that could result would have positive benefits for the rural economies of Devon.

Not all farmers will simplify and extensify in response to CAP reform and some members of the discussion group saw opportunities for expansion in the future, perhaps managing or, in the longer term, purchasing the land of those who either chose to cease, or are unable to continue active farming. One sector where this is likely to occur is dairying. The environmental implications of a further expansion of dairy farming are complex. Expansion does not necessarily imply intensification, particularly if cross-compliance conditions are met and dairy farms enrol into ELS. However, much depends on what the newly acquired land was previously used for and if, as seems likely, dairy farms expand at the expense of beef; this would represent an intensification of land use.

The other option open to farmers in the face of declining incomes is to seek alternative income sources. Off-farm employment is one option, although many farm spouses already have off-farm employment. Simplifying and down-sizing farming systems should free up some labour and may offer farmers an opportunity to seek additional work, although there appeared little enthusiasm for this among the participants in the discussion group. On-farm diversification is an alternative; but it is far from being an easy option. Those facing declining incomes may find it hard to finance diversification plans and a strong message to emerge from the farmer discussion group was that the Highways Authority can make diversification difficult where it would be associated with increased traffic movements.

Conclusions

The impact of CAP reform on farm incomes is not predictable in a strict sense, the final impact being subject to a myriad of influences. However, the results of the economic modelling exercise provide a useful guide to the probable impact, which, at an aggregate level, is likely to be largely neutral. At a sub-county level, upland areas and dairy farming will, on average, face falling incomes and while the former is a cause for concern, it may also provide new opportunities for the development of different types of upland landscapes.

The results of the farmer discussion group suggest that there is unlikely to be a rapid and large scale exodus from farming in the county. Rather, farmers and their families will adopt a range of strategies in order to remain on the farm. In the longer term, however, as farmers face significant reinvestment decisions some will inevitably decide to retire from active farming. This lagged response means that it will be some years before the full impact of CAP reform on farm structures (the number, size and types of farms) will be revealed.

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What Scope for Improving Farm Business Performance?

Martin Turner and Keith Robbins

The title of this paper suggests not only that there *may* be scope for improved farm business performance but it also carries the implication that the *possibility* of better performance is an issue of interest, to some at least. Of course, it begs the question of *who* might be interested in this issue, and the nature of their interest, and the purpose of this paper does not extend to providing any reasoned account of the range of ‘stakeholders’ for whom this issue might have some relevance.

In the present context, it is taken for granted that the issue is of interest to a wide range of policy makers, because of its implications for agricultural support and for the farming industry’s provision of externalities such as care for the environment. The issue is clearly relevant to all involved in the food chain, both upstream and downstream of the farm gate, since it will influence pricing policies, and hence impact on profitability, for suppliers, processors and retailers. The consumers of domestically-produced food presumably wish to purchase high quality products at the lowest possible prices, so they also should have concerns about the economic efficiency of the farming industry. And since it is not only food that agriculture produces, there will be a similar range of stakeholders for non-food products, farm diversification enterprises and so on. Finally, but clearly with a much more direct interest in farm business performance, of course, are farmers themselves who, together with their families, earn their livelihoods from the land. In summary, then, the topic is of widespread interest, and to a wide range of stakeholders.

Moreover, the issue is also of great topical interest. The farming industry currently faces considerable challenges in adapting to changing expectations from society (Turner, 2004) and, for a variety of reasons, experienced a severe economic depression from 1996 through 2001; the subsequent recovery has been far from universal or sustained, and there appear few prospects of any return to the financial buoyancy of the first half of the 1990s. We begin by looking at the most recent statistics of farm incomes, drawn from the regional results of the annual Farm Business Survey, a national study funded by Defra which provides a detailed economic insight of some 2,000 farm businesses across the country (Defra, 2004b). Table 1 summarises the results for 2002/03 and 2003/04, showing the levels of Net Farm Income (NFI) across each of the farming systems.

These survey results show that, in overall terms, the recovery in profitability which was recorded in 2002/03 continued in 2003/04, with the weighted average NFI for ‘all farm types’ rising 42 percent to £20,141 per farm, albeit from a very low base. This compares with the nadir of £7,000 in 2000/01. However, the findings also highlight a considerable variation across farm types, with ‘cereals’

farms achieving a doubling of NFI (from *very* low levels two years earlier) while on ‘cattle and sheep (LFA)’ farms NFI fell by a third. ‘Dairy’ farms recorded a further successive increase in NFI, despite continuing problems in the dairy processing sector, both nationally and regionally

Table 1: Changes in net farm income in Southwest England (Exeter province), 2002/03 and 2003/04

| Farm type | NFI 2002/03 £ per farm | NFI 2003/04 £ per farm | % change |
|----------------------------|------------------------------|------------------------------|-------------|
| Dairy | 18,689 | 26,428 | 41 |
| Cattle and sheep (LFA) | 15,430 | 10,195 | -34 |
| Cattle and sheep (lowland) | 5,753 | 8,373 | 46 |
| Cereals | 16,109 | 33,148 | 106 |
| Mixed | 10,515 | 11,180 | 6 |
| All farm types (a) | 14,187 | 20,141 | 42 |

(a) Excluding horticulture

While the continuation in the economic recovery in agriculture is clearly good news, in the light of the challenges faced by the industry over the coming years, the average NFI in several sectors leaves little room for comfort given the likelihood of, and recent experience of, greater fluctuation in incomes year on year. Particular challenges during the next couple of years, which impact directly on NFI, include the need to adjust to a new system of agricultural support under the CAP following the implementation of the Mid-Term Review (Lobley and Butler, 2004) and the introduction of a new agri-environment scheme. It can still be argued that this level of income falls short of the levels of return needed for long term economic sustainability. It is not always understood that NFI does *not* equate with a gross wage or salary: rather, it is the surplus generated by the farm’s trading to pay for (a) the manual labour of the farmer and spouse (who, together, typically provide an input equivalent to nearly 1.3 ‘full-time equivalents’); (b) some sort of premium for their managerial skills; and (c) a return on their investment in livestock, machinery and working capital (typically averaging about £140 thousand per farm).

With increasing recognition over the past few years that the economic challenges to the UK’s farming sector were going to grow, there has been considerable

attention given to the need to improve farm business performance. Various government initiatives have included the Farm Business Advice Scheme, designed to provide a range of business advice to farmers, a comprehensive assessment of the policy initiatives required to achieve a more sustainable future for the farming and food sectors (Cabinet Office, 2002) and the encouragement of farm benchmarking as a route to improving performance, to name but a few. The latter has extended to the launch of an internet service giving on-line access to data drawn from the Farm Business Survey, making available to farmers and consultants this national resource (Defra, 2004a).

The question, then, is ‘How much scope is there for improving farm business performance?’ In Table 2 some comparisons between ‘average’ and ‘top third’ performance levels, for a range of whole farm and enterprise groups, chosen more or less at random from data published in the CRR’s annual *Farm Management Handbook*, serve to highlight what are in some cases significant differences in performance. The point has to be acknowledged immediately that, of course, a very wide range of factors can influence a farm’s results in any one year and the figures presented reflect not only differences in management (and other factors under the farmer’s direct control) but also relative advantages or disadvantages in resources such as land quality, buildings, capital, and so on. Nevertheless, as anyone closely acquainted with the farming industry can testify, many farm businesses still have scope for improving their level of performance.

Identifying exactly *what* factors on any individual farm should be given attention if business performance is to be improved is clearly the role of the farm consultant. To take as an example of the possibilities for improvement, it is useful to turn to a detailed study of the business performance of smaller dairy farms carried by the authors which concluded that

“...there is no single blueprint for high performance in dairying. Rather, different farmers with widely different backgrounds and facilities are able to develop dairy farm businesses which have first class levels of profitability” (Turner and Robbins, 2003).

Table 2: Comparisons between ‘average’ and ‘top third’ performance levels, at whole farm and enterprise levels, Southwest England, 2002/03

| Category | Average Profit £ per ha | Top third Profit £ per ha | Ratio (average: top third) |
|---|----------------------------|------------------------------|----------------------------------|
| Whole farm results | | | |
| Cereals & general cropping farms, over 140 ha | 111 | 238 | 1: 2.1 |
| Dairy farms, 60 – 100 ha | 312 | 623 | 1: 2.0 |
| Lowland cattle & sheep farms, under 100 ha | 56 | 213 | 1: 3.8 |
| SDA cattle & sheep farms, 120 ha and over | 138 | 230 | 1: 1.7 |
| Mixed cropping, cattle & sheep farms | 137 | 284 | 1: 2.1 |
| <i>Category</i> | Average GM £ per ha | Top third GM £ per ha | Ratio (average: top third) |
| <i>Enterprise results</i> | | | |
| Winter wheat | 510 | 611 | 1: 1.2 |
| Winter barley | 422 | 519 | 1: 1.2 |
| Dairy cows | 1279 | 1617 | 1: 1.3 |
| Beef cows (LFA) – selling stores | 339 | 387 | 1: 1.1 |
| Breeding ewes - lowland | 284 | 479 | 1: 1.7 |

Source: Data from the *Farm Management Handbook 2003*. Centre for Rural Research, University of Exeter

Nevertheless the study found some common features associated with these high performing farms and these can be taken as an informal basis for benchmarking in the industry:

- Pay close attention to feed quality and ration formulation, and monitor milk production on a monthly basis;
- Adopt the selective use of external references in assessing performance, such as a (good) feed ‘rep’, comparative standards or a consultant;
- Monitor milk hygienic quality very closely and take corrective action if problems show up;

- Monitor compositional quality closely, and work with your feed adviser or other consultant to aim to gain price premia (subject to a simple cost: benefit assessment);
- Keep on top of the management of your business accounting to ensure invoice discounts are taken, invoicing errors are corrected promptly, VAT claims are accurate and timely and costs are closely controlled;
- Keep in touch with your milk buyer through reading all information provided, attending meetings, raising issues and taking an informed interest in market developments;
- From time to time, make the time for a strategic review of your business, thinking particularly of ‘where are we going?’ and ‘are there a further improvements to be made?’

The study showed that most farms have considerable scope for improvements in technical efficiency, ranging from cattle breeding, feeding and rations, cow housing and management regimes, parlour design and efficiency to such pure management functions as adjusting production to gain price premia. It concluded that, in the current difficult market conditions, improvements in one or more of these areas may make the difference between mere survival (or worse) and relative prosperity.

It is beyond the scope of this paper to discuss the role of farm benchmarking in improving farm business performance. In popular usage benchmarking is the current term for farm business appraisal using comparative data from farms of a similar type, size and, possibly, tenure. However, farm benchmarking as practised in Australia and New Zealand, for example, encompasses not only information on the financial and technical performance of a business but, potentially, the review of a farm’s environmental and social ‘footprint’. The technique is in widespread use in both countries as a technique to improve the competitiveness of farm businesses, and is frequently driven from the bottom up as groups of farmers employ consultants to facilitate the identification of best practice. Perhaps the most important distinction between old-style comparative analysis, long established in agriculture, and modern benchmarking, though, is the latter’s focus on *identifying and applying* best practice (Fogerty *et al*, 2003). One thing that is beyond dispute, however, is that many farms still have considerable scope for improvements in farm business performance.

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Provision, Participation and Penetration: Objective 1 Vocational Training in Cornwall

Allan Butler and Phil Le Grice,¹

Introduction

This paper explores the growth of the Vocational Training Scheme (VTS) in Cornwall since 2000, when the county gained Objective 1 status. The VTS in Cornwall is funded by Objective 1 and is similar to that available in the rest of England, which is funded by the English Rural Development Programme (ERDP). Both VTSs contribute to improving in the occupational skill and competence of farmers and other persons involved in forestry and farming activities (2004b). However, the Objective 1 funding of the Cornish VTS is administrative different in funding processes and procedures. Despite a slow start because of Foot and Mouth Disease (FMD), the range of events that are VTS funded has steadily developed. Furthermore, the number of Cornish farmers and other land-based workers participating in VTS funded events has also increased over this period. This however, is not spatially consistent as the analysis suggests that the agricultural population of east Cornwall are more likely to have participated in training. When considering the style of events, it is apparent that group discussions are an important element of this growth.

Objective 1 Status in Cornwall

In 2000, Cornwall and the Isles of Scilly were designated as an Objective 1 region, alongside parts of Merseyside South Yorkshire and Wales, in recognition that declining traditional industries have caused serious economic and social problems. Indeed, the Gross Domestic Product of the county before designation was significantly lower than the UK average and the South West average (inclusive of Cornwall and the Isle of Scilly), as is illustrated in Table 1.

Given the historic low level of economic prosperity, as recorded by GDP, the Government Office for the South West (GOSW) estimated the value of Objective 1 status to the Cornish Economy to be £800 million, when the European funding and public / private match funding are calculated. Furthermore, GOSW identified one of the main priorities for development as:

“to help Small to Medium Enterprises (SME's) by providing new or improved business premises, advice and information, small grants, loan and venture capital schemes, support for agricultural product processing and marketing, encouraging new business start ups and the development of business with growth potential and providing employees with training and new skills” (GOSW, 2001).

¹The authors wish to acknowledge the assistance of Cameron Tonkin and Jan Walsh at the VTS project management office, Duchy College, in the provision of data.



Of key importance to this paper is how training, advice and knowledge transfer equips Cornish farmers and land-based workers with new skills to enhance their businesses and develop new opportunities. In particular, the effectiveness of the Vocational Training Scheme (VTS) in disseminating new techniques and information, which has enhanced standing under Objective 1 funding, is examined.

Table 1: A comparison of the Cornish GDP in the 1990's

| Gross Domestic Product per head index (UK = 100) | | | | | | |
|--|------|------|------|------|------|------|
| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| South West Region | 92 | 92 | 93 | 93 | 93 | 91 |
| Cornwall and the Isles of Scilly | 65 | 64 | 64 | 65 | 66 | 65 |

Source: HMSO (2001)

Outside of Objective 1 areas, the VTS programme is a DEFRA scheme, which is operated under the English Rural Development Programme (ERDP), providing up to 75% of eligible costs for vocational training activities. Its intention is to improve the occupational skills and competence of farmers and other rural workers; to enhance diversification in farming and to increase the competitiveness and strength of the rural economy (DEFRA 2004b). In Objective 1 areas however, such as Cornwall, these DEFRA administrative arrangements are not available. Consequently, to avoid the potentiality that the most deprived areas in greatest need of assistance for restructuring would be further compromised by not having access to ERDP VTS, Duchy College secured Objective 1 funding to provide training for agricultural and Landbased SME's in Cornwall. As such, the system of training and the opportunities available in the county is analogous to that available in the rest of England, except that its funding is channelled through Objective 1 administration. Cornish residents in farming and other land-based industries have access to a programme of training events, programmes and group extension activities. These are aimed at developing their expertise and skills in technical and business related activities relevant to their business (Duchy College Farm Management and Professional Development Unit 2002), and are subsidised at a rate equivalent to that in the ERDP VTS

The Growth of VTS Beneficiaries in Cornwall

The number VTS beneficiaries that have participated in the Objective 1 funded scheme between 2000 and 2004 is approximately 12,896.² This figure includes individuals attending events from outside the county that are not eligible for objective 1 funding, and thus have to pay full cost. As Table 2 illustrates, 27% of beneficiaries are from other parts of the Southwest with a further 3% from

² For 2004, data is available up to 11th November; therefore, the remainder of the year is an estimation based on the previous year's performance.

outside the Southwest region. Part of this can be attributed to workshops organised by collaborating organisations whose client group extends beyond Cornwall. For example in 2004, Agri-Bip (based in Okehampton, Devon) organized workshops on CAP reform in Cornwall that will have attracted participants from Devon. This cross border access to training flows both ways as Agri-Bip operated similar courses in Devon, funded by ERDP VTS, and attracted Cornish participants, whose attendance would have been funded by Objective 1.

Table 2: Beneficiaries of the VTS scheme in Cornwall

| Year of VTS | Cornish Beneficiaries | Other South West Beneficiaries | Other South West Beneficiaries | Total Beneficiaries |
|--------------------|------------------------------|---------------------------------------|---------------------------------------|----------------------------|
| 2000 | 73% | 25% | 2% | 167 |
| 2001 | 72% | 26% | 2% | 724 |
| 2002 | 72% | 26% | 2% | 2305 |
| 2003 | 75% | 22% | 3% | 4176 |
| 2004* | 66% | 31% | 3% | 5524 |
| All Years | 70% | 27% | 3% | 12896 |

* Up to end of September 2004

Source: Centre for Rural Research & Duchy College

Table 3: The percentage growth of VTS participation

| Year | Percentage Growth over Previous Year | Growth (number of participants) |
|-------------|---|--|
| 2000 | 122 | |
| 2001 | 519 | 425% |
| 2002 | 1663 | 320% |
| 2003 | 3140 | 189% |
| 2004* | 3337 | 106% |

* Up to end of September 2004

Source: Centre for Rural Research & Duchy College

The number of VTS beneficiaries has grown each year since 2000. In 2001, this growth was particularly large because project approval was received toward the end of 2000 and in consequence few events were run. This growth might have been even greater but was affected the outbreak of foot and mouth disease the first half on 2001. Growth has continued at a decreasing rate, but with an increasing number of participants and by the end of 2004 it is estimated that 9000 Cornish beneficiaries will have participated in the VTS scheme (Table 3). This growth has been underpinned by the provision of a diverse range training events – from foot-trimming to business development.

Participation, Penetration Measured Against DEFRA Statistics

According to DEFRA census data for 2003 (DEFRA 2004), there are 13319 farmers and employed workers, including casual labour, that are engaged in Cornish farming on 9078 holdings. Table 4 summarizes this data and that of VTS beneficiaries' population in terms of Cornish postal districts. Nevertheless, caution should be exercised in interpreting direct comparisons using DEFRA census data as the VTS data is mapped using postcode locations rather than census or sample counts. As such, there is potential that either more than one beneficiary exists at each postcode or that multiple entries for the same postcode represent a single beneficiary attending more than one event. Moreover, there is likely to be an interaction between these two factors. On-going analysis of the Cornish VTS database will more accurately determine the extent that the agricultural population has benefited from training events. Until this is available, accounting for these factors provides a starting point to measure the penetration of VTS participation.

Table 4: A summary of employment, holdings and VTS beneficiaries in Cornwall

| | Total no. | Postal district statistics | | |
|------------------------------------|-----------|------------------------------|---------------------------------|---------------------------------|
| | | Mean No. per postal district | Maximum No. per postal district | Minimum No. per postal district |
| Agricultural employment | 13319 | 277 | 1177 | 24 |
| Number of Holdings | 9078 | 189 | 836 | 13 |
| VTS beneficiaries | 6347 | 132 | 833 | 1 |
| Beneficiaries at a single postcode | 1872 | 39 | 191 | 1 |

Source: Defra, Centre for Rural Research & Duchy College

Using an assumption that each postcode relates to a single beneficiary, it is estimated that 12% of the agricultural population have been or are continuing to be engaged in the VTS programme. This assumption fails however to account for the beneficiaries that attended with other members of the family or with other workers. For example, a participant from Launceston reported that he attended with his son (the farmer) on an ICT open day, while a second participant also from Launceston described her attendance at an equestrian training event as support for her daughter who rode.³ Alternatively, assuming that each record of participation relates to a single member of the agricultural population is also erroneous, and while this would suggest a 41% penetration rate into the agricultural population, it does not account for participants that attend more than one event. Indeed, it is not uncommon for some beneficiaries to attend in excess of six VTS funded events. A more realistic assumption is to compare beneficiaries against the number of holdings rather than postcodes to account for more than one beneficiary from the same farm. While this does not measure

³ Comments sourced from in-depth interviews with VTS beneficiaries carried out in early 2004.

multiple user participation explicitly, it does recognize that beneficiaries from one postcode are likely to be either other family members or individuals that are higher volume users of VTS funded events. By adopting this proxy, it is estimated that the VTS programme has reached 17.6% of the agricultural population.

Despite the limitations of using DEFRA's June census data as a direct comparison of beneficiary participation, it is constructive to use it as proxy of the scheme's uptake in various areas of Cornwall. Indeed, 87.5% of VTS participation can be explained by the level of agricultural population when participation in more than one VTS events is assumed, while this increases to 88.8% if the explanatory factor is the number of holdings.⁴

Spatial Mapping of VTS Beneficiaries

The power of the agricultural population and number of holding as comparative explanatory variables hides differential spatial effects. Figure 1 shows the density of beneficiaries as a percentage of the number of holdings in Cornish postal districts.⁵ The spatial distribution of participation is mixed. The postal district around Newquay, TR7, (enclosed by TR8) on the north Cornish coast has a particularly good coverage of VTS participation as it records a high number of beneficiaries relative to the small number of farmers and agricultural workers. More typically, postal districts such as PL11, PL31 and PL28 demonstrate a reasonably effective distribution of beneficiaries. In general, the east of Cornwall has a stronger representation of VTS beneficiaries than more western areas, particularly those around the hinterland of Camborne.

This is further exemplified by Figure 2 that illustrates the relationship of participants in postal sectors against the agricultural population. TR14, which is the west of Camborne, under performs in terms the potential beneficiaries that exist in this district. Conversely, PL13, while its agricultural population is lower than that of TR14, has considerably more beneficiaries. This suggests that some areas of Cornwall are less well served in term of VTS participation.

⁴ Using simple regression analysis (OLS) both $R^2 = 0.875$ and $R^2 = 0.888$ are significant.

⁵ The postal districts of EX22 and PL15 have been estimated on a pro rata basis both of these straddle to a large degree the Cornish Devon border.

Figure 1: Percentage of VTS participation in terms of holdings per postal district

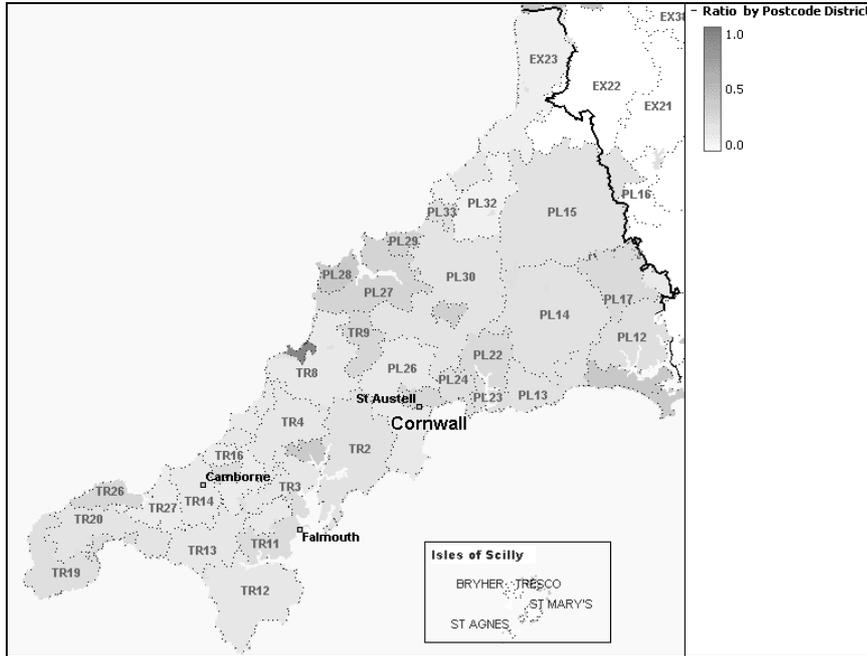
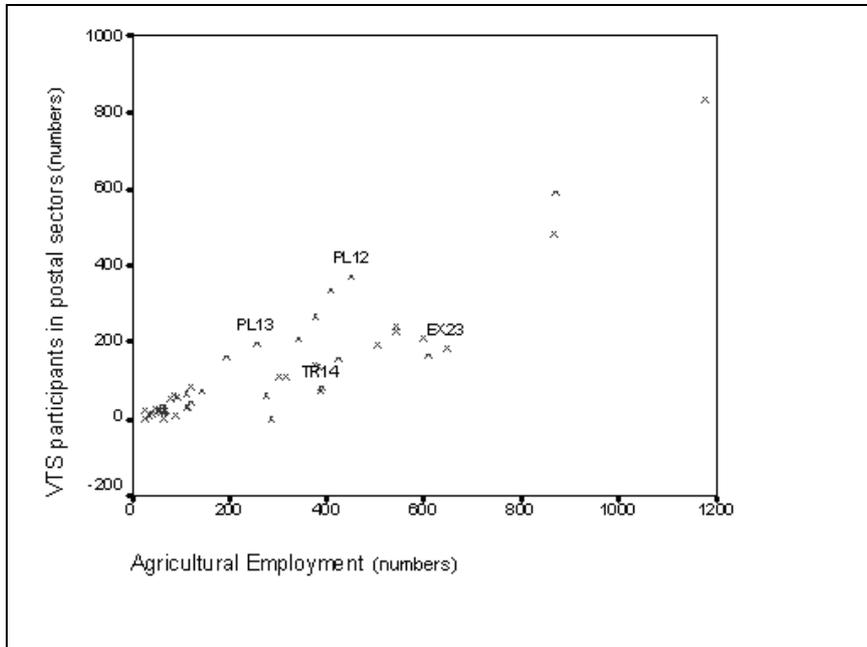


Figure 2: The relationship between the numbers of participants in postal sectors and the agricultural population



The Development of VTS Events in Cornwall

Despite these spatial disparities, the programme of events in Cornwall reflects the county's agriculture as well as accounting for related industries. Table 5 illustrates the breadth of events. Technical and husbandry events dominate

(70.8%) as this category covers many agricultural and land-based sectors. Within this, 21.7% of husbandry events were related to crop management, which partly reflects the development of discussion groups, 17.6% were related to animal husbandry and 13.9% were related to dairy management. Other VTS funded training events involved business management (9.7%), computer training (6%) and farm visits 4.8%. The range of events suggests that a wide audience is being targeted and the knowledge transfer to Cornish farmers is actively apparent.

Table 5: Broad themes reflected in event titles⁶

| | Number in each category | Percentage |
|----------------------------------|--------------------------------|-------------------|
| Technical & Husbandry | 615 | 70.8 |
| Business management | 84 | 9.7 |
| Financial management | 18 | 2.1 |
| Personal and staff development | 21 | 2.4 |
| Marketing | 7 | .8 |
| Diversification and Tourism | 30 | 3.5 |
| Computer training | 52 | 6.0 |
| Open Days, Farm visits and tours | 42 | 4.8 |
| Total | 869 | 100.0 |

Source: Centre for Rural Research & Duchy College

The means by which information is transferred to the farmer is also varied. Some information moves through traditional course based routes, such as the four day foot-trimming courses; information flows through discussion based groups such as the Cornwall pig discussion group; some travels by way of partnerships with external groups funded to deliver events and workshops, such as farm conservation led by FWAG (Farming and Wildlife Advisory Group); or the use of individual experts, such as a BVD (Bovine Viral Disease) seminar. The transfer of information to the participant is only part of the process as the farmer or land-based worker has to put into practice the knowledge that he or she has acquired. Whether this occurs is not with the scope of this paper but will be explored in future publications. Despite this, it is certainly clear that some participants do transfer their gained knowledge into practice. In particular, one beneficiary in the Liskeard area had the confidence from participating on several VTS events to begin his own business.

⁶ These categories do not necessarily reflect those of the VTS project management team.

Conclusions & Further Research

This descriptive analysis of the Objective 1 funded VTS scheme in Cornwall demonstrates that while developing from a difficult start it has grown substantially from the beginning of 2002. Furthermore, this is likely to continue with judicious management as the breadth of events expands, particularly in its funding of discussion based groups. Such groups, if facilitated effectively, have the potential to capture an audience and be driven by demand based requirements. There is however a question regarding the spatial distribution of beneficiary uptake. As such, it will be important to identify why certain areas do not participate at a level reflective of its agricultural population or number of agricultural holdings.

Future and on-going research has three strands. The first examines the flow of information within the social networks of farm businesses. Limited knowledge flow could potentially limit dynamic changes to farm business and this could have implications regarding the targeting of VTS events. Second, discussion groups will be investigated regarding their dynamics and development as a means of transferring information. Finally, an in-depth investigation of VTS participation will enable the spatial analysis and mapping of gender, multiple participation and group involvement.

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The ‘Modernisation’ of Agriculture in Devon during The Second World War: Uncovering Alternative Narratives

Mark Riley and David Harvey

Introduction

As we reach the 60th anniversary of the end of World War 2 (WW2), public appetite for recollections on the period continue unabated, with a profusion of popular publications, media reports, and heritage ‘events’, as well as national projects such as the BBC’s *People’s War* (<http://www.bbc.co.uk/dna/ww2>). In academic terms however, Alun Howkins has recently suggested that: “the history of rural areas during the Second World War is virtually unstudied”, pointing to a few disparate studies which concentrate on agricultural policies of the period, and suggesting that “the extent to which these rely on K.A.H. Murray’s ‘official’ history published in 1955, is testimony both to the quality of Murray’s work and the paucity of more recent published research” (Howkins, 1998, p.75). This short review presents preliminary findings of a research project concerned with the changing rural landscape in the Second World War, which goes some way to filling the void that Howkins has highlighted.

Funded by the Arts and Humanities Research Board, the project, entitled *Landscape Archaeology and the Community in Devon: an Oral History Approach*, was concerned with landscape and agricultural changes in the war and immediate post-war period. The main emphasis of the project was to investigate the possibilities of an oral history approach to the fields of landscape archaeology and landscape history. While there have been a number of oral history projects relating to WW2, these have proceeded primarily as community based-activities, with the main intention being the recording of recollections *per se* (those for example funded by the Heritage Lottery Fund), with few attempts to intertwine these within wider social analysis or academic enquiry. Where academics have engaged with oral histories of WW2, these have tended to focus on more recently popularised groups such as the Women’s Land Army, with little attention paid to the farmers who carried out many of the changes seen during the war. This paper considers this group in the context of Devon and presents the findings from oral history interviews with 31 respondents who were engaged in farming or related activities during the war.

State Surveillance and the Development of the ‘National Farm’

The commencement of war resulted in the County War Agricultural Executive Committees (CWAECs) - commonly referred to as the ‘War Ags’ - being given unprecedented powers under defence regulations in order to increase food production. Such powers included the freedom to take control of land, inspect all agricultural land and direct its cultivation, and, in more extreme cases, requisition holdings which they felt were not being farmed to their maximum potential. The main duty of the War Ags was to encourage ‘good’ agricultural

practices, allocate ploughing quotas and subsidies (as part of the now famous 'Plough-Up Campaign'), distribute tractors and other equipment, and encourage land drainage (Short *et al.*, 2000).

In 1941, Winston Churchill commissioned the National Farm Survey (NFS), the aim of which was to assess the ability of British Farmers to produce the required foodstuffs for the duration of the war. The resulting survey, which covered England and Wales, provides a detailed inventory of farming in the period. The survey material, which is now held at the National Archive in Kew, comprises four sections: a return dated 4 June 1941 giving details of fruit, vegetables and stocks of straw and hay; a return giving details of crops and grass, livestock and labour employed; a farm survey, which includes maps of holding boundaries and a form completed by interview and inspection and in the field; and a return with additional questions on labour, motive power/tractors, rents and questions relating to the length of occupancy. As a data source, the NFS is unparalleled, with no other source offering such detailed information at the farm scale.

Destabilising Official Narratives

A first issue considered by the research was the extent to which the oral histories of respondents augmented and challenged the 'official' record of the NFS. Copies of the NFS and primary returns for individual farms were used during interviews, both to act as a stimulus for the discussion of particular issues, and to question the particular narrative that the survey generates. Relating to the veracity of the survey as an agricultural record, several respondents pointed to a number of inaccuracies, both in terms of figures recorded in relation to acreages and stocking numbers, as well as boundaries mapped on the NFS maps. The following extract is taken from one such interview where a farmer was referring to the map showing his own farm:

There's a bit here that was kept back by the estate.... When father bought it they'd thrown a lot of timber there and in pulling out the timber they'd broken in all the drains...and father being fairly hotheaded said to the landlord unless he put the drains right he wouldn't buy it. And they haggled for a while, and they wouldn't put the drains right so father said 'you keep It'...so that never belonged to this farm.

While the use of oral history is fraught with difficulty, particularly in relation to the accuracy of recollection, here the farmer's account challenges, with some certainty, the official record. The farmer, aged 75, had lived at the holding all his life, and recalled both the actual event and, through his own biography, the fact that the farm boundary had remained static since before the war.

Further challenges were made to the survey, not just in terms of its accuracy, but also to the picture of agriculture which it creates. In relation to ownership details, a number of respondents pointed to the deliberate splitting of holdings in order for younger men to avoid conscription. One farmer for example, spoke of his father 'breaking the farm into three lots' and providing each of his sons with a rent book, in order that they would avoid conscription to serve in the war. So while the 'official' documentation of this time reveals a predominance of tenanted farms over owner-occupation, the oral histories reveal that such figures may be artificially high.

A particularly contentious area was the more subjective assessments that were made by those officials completing the survey. Farms were graded A, B, or C, and while this was intended to be an assessment of the farm, reasons cited for the grading were often assessments of the individual farmer and included comments such as "this farmer lacks ambition". Commonly, the oral histories offered an alternative narrative to these negative labels attributed by scheme officials. The following extract is from the interview with a retired farmer who questioned the notion of 'ambition':

But you see, a lot of them, they were farming to live and they didn't want very much, [They would say] 'We don't want any money, we've got enough to live as we are' To other people it looks like a lack of ambition, but he'd say: 'What do I want to do all that for? I got enough money to live on; I can pay my bill at Matthews.' They didn't lack ambition, they were just meeting their needs.

Compliance, Coercion And Force – Practices Out Of Place?

A second major theme brought to the fore by respondents was the role of state intervention in the form of the 'War Ags'. The level of intervention was seen to vary considerably, not only in relation to the different areas of Devon, but from farm to farm. Particularly important was the role of local officials who were taken on by regional officers to implement their work in individual parishes. The oral histories shed light on the sparse records of how and why these people were enlisted, and how their appointment often generated much antipathy. In the areas where interviews were conducted, the officers had predominantly been retired farmers, many of whom were considered by our oral history respondents as "farmers who had failed to make a go of their own farms".

An important aspect of the War Ag's work in Devon was land reclamation, with attention focussed particularly on common and moorland. Indeed, the official histories pay tribute to the large areas of formerly unimproved land taken under cultivation across Devon during the war. Such heroic narratives were challenged by the oral histories of respondents, many of which had direct experience of the land reclamation. One theme, encapsulated by the following farmer was that "it was reclaiming land for reclaiming's sake, when they had cleared all the bracken

and furze, they still had land that wouldn't grow anything ...it looked good, but very little came off it". The extent to which reclamation actually increased production was a recurring issue in the interviews, and it is clear that greater attention was given to achieving the targets to increase land area under cultivation than to careful cultivation. One farmer, whose land lay next to that being reclaimed recalled:

They took on about sixty acres. They took that over and ploughed it up. Course, some of the ploughing was a bit rough (laughter). The people they got to do it didn't know much about it... they didn't have proper planters and the ground wasn't properly prepared. They'd plough three furrows down and these prisoners-of-war would come and drop the potatoes in the bottom of the furrow and the next furrow would plough them in, you see. But it wasn't the way to get the maximum crop... They'd bring out a lorry load of seed potatoes and a certain portion of them would stay there and rot. The rats would get in them and so on.

Respondents placed particular emphasis on the way War Ags forced new farming practices upon them, and attempted to standardise practices across the country. For a number of respondents it was felt that these new practices were misplaced, with one farmer suggesting "these were Devon pasturelands you see, not like your arable areas...they were grassland areas, and ploughing for crops wasn't what we were used to". Others pointed specifically to the accompanying technology, which they were pressed to use: "I was lent a Standard Fordson and plough to work the steep land...it was land that should never have been ploughed, and it was equipment I couldn't handle. It produced next to nothing, because I'd made a poor job of doing it...I just wasn't used to the technology at that time".

An interesting question raised by the research was the extent to which the efforts during the wartime had a lasting effect on the agricultural landscape of Devon. Three particular themes were highlighted as important in relation to this. First, the war offered higher levels of capital and labour investment that had previously not been available to many farmers, and this allowed structural improvement to their farms. Particularly important was the role of prisoners of war in widespread land drainage, much of which it was noted still exists today. Second, the war offered the first experience of machinery and field mechanisation for many farmers. The machinery pools that were held by the War Ags were often loaned to farmers for ploughing, drainage and threshing, and gave the necessary experience for many to purchase their own machinery in the immediate post-war period. A third, and perhaps less overt development, was the subsidisation of agriculture. One farmer recalled "when they said that you could get a 'subsidy' during the war, I didn't know what the word meant, I had never heard it before'. A second farmer noted that this was the start of government support for agriculture: "we had contact with the officials during the war, so we kept going

afterwards...they told us what we could have to help us along, and farming in Devon never looked back”.

Conclusion

This research is aimed at bringing back into focus the history of farmers in wartime Devon that have been marginalized from popular discussions and academic research on the period. A particular aim is to consider how oral histories can unveil a history of rural and landscape change that is hidden in the shadows of national official histories and figures. The emphasis of the research however, is not to create an unproblematic narrative, but to assess how oral histories may be used as an alternative stream of knowledge on the rural landscape. While such an historical focus would ostensibly seem far removed from current policy concerns, an oral history approach has the potential to contribute to current debates. As agricultural policy becomes increasingly geared towards more ‘traditional’ farming practices and extensifying production, the histories of those who managed the countryside prior to the Common Agricultural Policy may give us a clearer picture of the countryside we wish to recreate as well as how this may be achieved.

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Nitrogen Losses on Dairy Farms: Towards Improved Management Practices

Martin Turner and Keith Robbins

The Pressure to Intensify

The steady increase in the intensity of UK agriculture over the post-war period is well known. Here we will simply outline the economic and policy environment within which UK dairy farming has developed over recent years to provide the business context for the research on which we report. For several decades one area of scientific and management attention in improving the productivity of grazing animal production systems has focussed on the efficiency of forage production, particularly that of grassland but including also the development of alternative (or supplementary) fodder crops, such as maize for silage. For a number of reasons, dairy farming systems have led the way in the adoption of these techniques, which have resulted in average stocking rates on these farms being markedly higher than on other grazing livestock production systems¹. Moreover, on many dairy farms the economic pressures to intensify management have been such that the farming system is typically heavily dependent on large inputs of nitrogen (N)-based inorganic fertilizer.

Associated with this general pattern are a number of commonly-accepted management standards which reinforce this message. These include, for example, financial and technical benchmarks such as, respectively, ‘milk yield from grass and/or forage’ and ‘timing and total usage of N use on grassland’. Similarly, new techniques have permitted a further boost to total dry matter production through the growing of forage maize, normally for conservation as silage. This crop also typically involves the intensive use of N-based fertilizer. Nevertheless, UK dairy farming is still characterised by a wide variety of approaches with significant numbers of farms operating more traditional lower input systems that are much less dependent on N use.

More recently, the decline in the profitability of dairy farming since 1996 has forced a widespread re-assessment of production systems while, at the same time, reducing the financial viability of increasing numbers of dairy farm businesses². One government response to the evident need of dairy farmers to rethink their production strategies was the setting up of the Inputs Task Force, which commissioned a number of economic studies of the efficiency of input use in the production of major commodities, including milk³. One of the principal

¹ See, for example, information on enterprise gross margins in the University of Exeter’s *Farm Management Handbook*.

² The scale of, and principal reasons for, the farming recession is well documented in *Farm Incomes in the United Kingdom* (<http://www.defra.gov.uk/esg/default.htm>).

³ Published on DEFRA’s website (<http://www.defra.gov.uk/farm/itfreport/index.htm>).

conclusions from this research concerns the scope that many dairy farmers have to improve both grassland management and the efficiency of fodder utilisation in the search for improved economic efficiency and, therefore, more robust business viability in a less profitable marketplace. Of particular relevance here, 'forage variable costs' (an aspect of efficiency not related to scale), 'higher stocking rates' and 'nitrogen application rates' (both of which involve scale and non-scale effects) were identified as targets for management attention in the continuing attempt to drive out economic inefficiency.

The Research Context

In parallel with the intensification of farming systems, it has become increasingly clear that agriculture's interaction with the environment is more complex than was once realised, and that intensification brings greater potential for adverse effects. One example relates to intensively-managed dairy farming systems, which have the potential to generate large nitrogen losses with consequent adverse effects on water and atmospheric quality. Substantial losses of N occur as leached nitrate (NO_3) into waters and as ammonia (NH_3) to the atmosphere, or through de-nitrification (which can include high rates of nitrous oxide - N_2O - emission). At least 50 per cent of the annual N inputs to a typical dairy system are estimated to be lost to the environment and, at the very least, this represents a substantial loss of a valuable resource. Further, one of the government's policy aims is to enhance the rural environment by reducing diffuse water pollution from agriculture (through reduction of NO_3 leaching for example). There are also increasing concerns over the emissions and subsequent atmospheric impact of NH_3 and N_2O arising from agricultural activities, and dairy systems are major sources of both these gases.

The CRR recently co-operated with the Institute of Grassland and Environmental Research (IGER) in studying the environmental and economic implications of N losses from dairy systems, under research commissioned by Defra. Because of the complexity of N-cycling within animal production systems, and in order to be certain of all the interactive effects that occur within a multi compartmental management system such as dairying, is essential that an understanding of the complete system is obtained. In order for Defra to make progress in the further development of policies related to all N emissions, there was a need to examine actual examples of commercial management and to take account of changes in production and recent research results and model development. A desk study/systems analysis approach, based on predictive models, provided a cost-effective means of improving our understanding of these complex interactions. The use of a systems analysis approach has proved an important tool in demonstrating the scale of adverse effects, examining the potential for change, identifying the economic implications and communicating with the farming industry through technology transfer.

The aim of the economic assessment was to provide a ‘real world’ dimension to the desk research on predicted N losses from dairying systems by modelling the likely financial impacts using actual dairy farm businesses with alongside the identified alternative management options that are designed to reduce N losses. Specific objectives included:

- Estimate the scale of the financial impacts of alternative management options;
- Identify the financial impacts across the range of dairy farming systems examined;
- Provide farm-level ‘feedback’ as a tool in exploring technology transfer issues related to N loss strategies.

Modelling Alternative Farm Systems

The primary source of data for the economic models was the information obtained from each of the six case study farms, which included detailed cropping and stocking statistics, information on farm management practices including forage production and comprehensive farm systems data. Since the sample farms selected for the desk study were located in the Southwest, the appropriate source of economic data was the University of Exeter’s regional Farm Business Survey database, using 2000/01 data to match the period used for modelling N losses. This was augmented as necessary by information obtained from a variety of industry sources. Economic models were then developed for each of the six case study farms, and each baseline model was then run under the six different management options identified as effective alternatives in reducing N losses:

- M1 Grass/clover swards (non-organic);
- M2 Grass/clover swards (organic);
- M3 Improved slurry/fertiliser use;
- M4 Maize silage;
- M5 Grass/clover swards plus maize silage;
- M6 Improved slurry/fertiliser use plus maize silage.

Table 1 summarises for each of the case study farms the predicted changes to the financial margins (before allowance for annual depreciation on additional capital investment) under each of the six management options. The model results make interesting reading. In general terms, and with the exception of the organic option, most of the case study farms are predicted to see only minor changes in margin under any of the alternatives management options. Indeed, under some circumstances, it appears that considerable improvements in margin may be achieved under improved N management regimes (see Farm F, for example).

Moreover, all farms were predicted by the model to achieve higher margins under the organic option (M2), but there are two important caveats to this general conclusion. First, the scale of the improvement in margin is heavily dependent on the size of the premium for organic milk, and as events over the last few years have shown this cannot be taken for granted. Assuming a value closer to the current price (22 p/litre), the change from the base margin would be +2%, +13%, +28%, +14%, +30% and +32% for Farms A to F, respectively. Even so, these margins will also be unrealistically high if the study overestimated the milk production potential of clover-based swards. Secondly, it was particularly difficult to model the organic option due to a shortage of sound empirical data and it may be that, despite close liaison with organic experts at the design stage of the model, the specification of this option could be further improved as more reliable farm-level data on organic systems becomes available.

Table 1: Summary of the economic impacts at farm business level of alternative strategies to reduce N losses

| Farm | Management option* | | | | | | | |
|------|--------------------|-----|---|----------|-----|-----|-----|--|
| | Base | M1 | M2 | M3 | M4 | M5 | M6 | |
| | £/farm | | % change in financial margin [†] | | | | | |
| A | 30752 | -5 | +100 | -5 (-15) | +2 | -4 | -4 | |
| B | 33749 | -3 | +136 | -6 (-15) | +2 | -2 | +2 | |
| C | 41954 | +4 | +154 | -3 (-3) | +8 | +10 | +11 | |
| D | 59349 | -1 | +111 | -7 (-18) | +5 | +2 | -4 | |
| E | 31276 | +2 | +164 | -8 (-25) | +11 | +6 | +1 | |
| F | 23809 | +25 | +229 | -8 (-33) | +4 | +26 | +3 | |

*As identified in the text above.

[†]This represents the gross margin less contracting and direct labour costs, and includes all items affected by the alternative options except an annual depreciation change on additional capital investment (see main tables). Values in parentheses for Management M3 are margins including the capital cost of increased slurry storage.

Two of the non-organic options show generally consistent impacts on financial margins across all case study farms. Thus, option M3 (improved slurry/fertiliser use) is predicted by the model to result in small decreases in margin, ranging from three to eight per cent, on every farm examined. Unfortunately, although this is one of the most effective options for reducing N losses and involves a significant reduction in fertiliser use, the additional costs of the improved slurry application techniques far outweigh the savings from reduced fertiliser costs. Option 4 (maize silage) is predicted to result in modest improvements in margin, ranging from two to eleven per cent. Though financially attractive, this option was the least effective at reducing N losses. Clearly, these findings have important implications for policy design.

Options 1, 5 and 6 are predicted to have much less uniform effects on financial margins, the exact outcome in each case depending on the specific circumstances of an individual farm. In most cases, however, it would appear that these effects are likely to be quite small and relatively insignificant in relation to the business as a whole. It may be argued, therefore, that the impact of these management options needs to be assessed at case level by a competent adviser or consultant. The models predict that certain farm systems show a greater propensity either to benefit in financial margin terms, or to lose out, under most of the identified management options considered here, and these outcomes are linked to stocking rates and farm system.

Discussion

The economic models highlight some important issues at the level of the individual farm business. Perhaps the two principal findings, which must be regarded as indicative at this stage in view of the small number of case studies examined, are that (a) most dairy farms are unlikely to be significantly adversely affected financially from the adoption of improved management practices to reduce N losses, and some may actually experience modest positive impacts; and (b) targeted advice has the potential to identify farms on which quite significant improvements in margin can result from the adoption of improved N management. Finally, notwithstanding the caveats above, the models suggest that the organic option *could* be financially very attractive under a range of situations but subject, of course, to the exigencies of the market place in terms of the balance between the supply of, and demand for, organic products.

Briefly then, this is the economic context in which the scientific research reported here must be viewed. The scale of the estimated losses of the annual input of N fertilizer on typical dairy systems represents both a substantial loss of a valuable resource (with evident implications for economic efficiency) and a potentially serious negative externality in environmental terms. Not only does N leaching cause particular concern in terms of diffuse pollution of water resources, but also dairy systems are major sources of gaseous emissions which have adverse effects on the atmosphere.

Moreover, there can be little doubt that the continuing pressure for improvements in economic efficiency, now driven by a significantly reduced profitability and with few prospects of any substantial upward movement in production margins, is expected to have far-reaching consequences on milk production systems. Not all of these are likely to be favourable to policy objectives concerned with environmental outputs.

The Economics of Broiler Production: A Pioneering Venture by the Centre for Rural Research

Andrew Sheppard

Introduction

A report published by the CRR in the past year filled a gap in knowledge of the structure and economics of broiler production in England, in which a small number of vertically integrated processing companies dominate an industry with a UK value of £816m at the farm gate and £2.16bn in the supermarket. In the light of slender margins at the farm level, questions are raised about the conduct and performance of the processing and retailing industries.

In mid 2004, the Centre for Rural Research published a report on the economics of broiler (or table) chicken production¹. The report was the outcome of a year of detailed costings on more than 100 English broiler farms, preceded by a postal survey of the structure of broiler production. Broiler production has not hitherto received much attention from agricultural economists and little robust data, if any, was available in the public domain. The study was commissioned and financially supported by Defra, covering production in both the farmer-owned and vertically integrated company sectors.² Data was collected by the University of Exeter and seven other universities and colleges, each working in their respective geographic areas and the survey covered the whole of England. Through statistical weighting based on the findings of the Structure Survey, the resulting measures of technical and financial performance represent the entire English broiler industry.

The Structure Survey

Postal questionnaires for the Structure Survey were sent to all farm holdings in England recorded by the Agricultural Census as having 2000 or more broiler chickens in any one of the three years preceding the survey date. The cut-off point of 2000 birds was set low in the hope of locating a greater number of organic and free-range producers.

¹ The Structure and Economics of Broiler Production in England. Number 59 in the series Special Studies in Agricultural Economics, University of Exeter Centre for Rural Research, June 2004, £15.00. Also available for free download at <http://www.ex.ac.uk/crr>

² Somewhat more than half of all broiler chickens in England are produced on farms owned and operated by 15 vertically integrated production and processing companies. Four companies between them not only process upwards on 70% of all UK production but produce almost a half of those birds themselves on company owned farms. Most of the rest are produced on farmer owned holdings, but with chicks, feed and some other inputs either supplied or closely controlled by the company.

In the case of holdings known to be owned and operated by one of the vertically integrated companies, slightly modified, but essentially similar questionnaires were sent to 16 company head offices.

Besides establishing the numbers and ownership of the birds on a holding and whether production was conventional, less-intensive, free-range or organic, the survey looked at the arrangements for purchasing the major inputs of chicks, feed, vaccines and medications, whether birds were reared separately according to sex, membership of assurance schemes, and at any special ways in which chickens were marketed. The questionnaire also enquired of producers their greatest concerns regarding the future of their business. These are some of the findings of the Structure Survey:

- Response from non-company holdings was 69%, from companies 75%, though small companies responded more readily than large companies. Overall, 56% of broiler production sites in England and 56% of all broiler chickens were accounted for by responses to the survey.
- Most company and non-company owned sites produced chickens along conventional lines (indoor, intensive, non-organic) selling birds aged 35 to 56 days; 56% of respondents reared chicks separately by sex; 9% kept free-range chickens, of which one-third (3% of the total number of holdings) were organic producers.
- In many cases, partial thins³ to reduce stocking density towards the end of the growing period took out some or all of a particular sex, usually the pullets.
- Most flocks had already attained registered status within a quality assurance scheme, or were grading up towards such a scheme, usually Assured Chicken Production.
- Both rearing separately by sex and registration under a quality assurance scheme were most strongly favoured by the larger flocks.

Regarding their greatest concerns about the future of their businesses, non-company respondents highlighted:

- Imported chicken from countries not subject to the same legislation.
- The power over the industry of supermarket groups.
- Profit margins insufficient to invest with confidence for the future.

Company respondents were most concerned about.

³ Thinning is the practice of taking just some of the birds from a house as the birds grow bigger and maximum permissible stocking rates – expressed in kg per square metre – are approached.

- Ever tighter welfare, hygiene and other regulations.
- Increased feed cost because of legislation/supermarket demands.

Of concern to both company and non-company respondents were:

- Profit margins insufficient to invest with confidence for the future.

The risk of a food scare relating to poultry was not given a high rating, scarcely registering at all as a concern for the company sector. Also, neither sector reported any great difficulty in finding and retaining suitable labour.

The Economic Survey

The economic phase of the study investigated all fixed and variable costs at the farm-level for broiler production, determining Gross and Net Margins.⁴ In order to establish measures of technical efficiency, and to validate the results, accurate measures of physical quantities of feed and labour inputs were required; and of liveweight yields, also precise numbers of chicks put into broiler houses and finished birds taken out, including precise dates. Capital plant and equipment were assessed, as were self-employed or otherwise unpaid labour and other farm-produced inputs.

“All flock” results were computed for the 70 non-company and 36 company holdings, with many sub-groups based on size and other production characteristics. Weighted figures were computed combining all holdings so as to represent all broiler farms in England.

The weighted net margin, representing 600 million birds produced in England in the year, proved to be three pence of a farm gate value of £1.16 per bird. For the farmer-owned holdings, the margin was eight pence; whilst the vertically integrated company producers merely broke-even (that is, they had a net margin of 0.0 pence). Free range producers achieved a markedly better margin of 24 pence.

One of the more remarkable features of the results of the study was the narrow range of many performance indicators across the various production types and size groups, even the top and bottom thirds. Feed conversion ratio⁵ (almost invariably 1.9:1), average weight at which birds were sold (2.2 to 2.6kg) and Gross Margins (20.5 to 26.9 per cent of value of output) all fell within tight bands. This despite the fact that survey flocks were distributed throughout England and flock size varied widely, with the largest flock almost 36 times the

⁴ Gross margin is the value of the enterprise output less variable costs; while net margin is the residual return to the entrepreneur’s management skills and capital resources committed.

⁵ Feed conversion ratio is the weight of feed used divided by the liveweight output of the birds produced.

size of the smallest. The age of buildings and other plant resources also varied widely, and local management was different in almost every case, even if the number of processing plants and the variation in their contract specifications were rather small.

Chicks, feed, vaccines and medications, almost invariably supplied to non-company farms by the processor, constituted more than 80% of total costs. That arrangement gives the processors a considerable measure of control over major inputs, their cost and, in practice, the farm-level profit margin of broiler production. Such a feature might be viewed in a negative light by farmers and consumers. However, the fact that those inputs are almost invariably invoiced only as a deduction from the ultimate payment for finished birds has a major cash flow benefit for producers and greatly reduces their working capital requirements.

Companies invoiced themselves for chicks and for feed at unit prices that were marginally lower than for their contract producers, but differences can be explained in terms of bigger volumes for the larger average company holding and because company holdings are predominantly in the grain-growing eastern regions. It was not felt that companies were unfairly exploiting their monopolistic position as suppliers of chicks or feed. However, the cost of as-hatched chicks, almost universally a little less than 23 pence and as such a large proportion of the total cost of producing a broiler chicken, suggest that the costs and margins of the breeding companies and hatcheries might merit a closer look.

As suppliers of chicks to their contracted producers, the processors are in a position to select the breed and strain of chick that best suits their own purposes. Similarly, their control of feed formulations is likely to be to their own advantage. Work done by Carolyne Kemp of Aviagen, the parent company of Ross (the leading broiler breeding company), indicates that because of its impact on the balance of breast and other meat, the optimum feed formulation for a broiler chicken varies according to whether a chicken is to be sold as a whole carcass or as separate portions of breast, legs and wings. It is thus in the processor's interest to regulate the formulation of the feed according to the manner in which it is anticipated that the chicken will be marketed. This is a powerful reason for the processors to want to keep the supply of feed within their own control.

Buildings, equipment and machinery amounted to 7.3% of total costs, £8.94 per square metre of production space. Electricity, gas, heating oil and water charges totalled 3.3% of total costs - 3.8 pence per bird.

The amount of labour put into broiler holdings and its cost were among the more variable items. The weighted mean for all holdings was 4.6 hours per 1000 birds sold, with a range among conventional production groups from 3.3 to 6.9 hours.

Free range producers input 14.7 hours per 1000 birds sold. It should be remembered, however, that several of the more labour intensive tasks in the broiler production cycle are customarily undertaken by contractors (cleaning-out and fumigating houses), or by gangs of labour provided by the processor (taking chicks from their boxes on day one and catching and crating birds at the end of the cycle). The labour input on those occasions might cumulatively double the total labour involved in the production of a conventionally produced chicken.

The top third⁶ non-company holdings had the lowest labour cost and the lowest labour usage. The highest labour cost was incurred by the smallest-sized non-company holdings. However, rather high labour costs were also found on company farms; even though they were not heavy users of labour hours, per hour labour cost was greater. Company holdings were also notable for greater fixed costs other than labour.

Thus, although company holdings were ahead of the non-company holdings at the Gross Margin level, it was higher fixed costs that reduced the company holdings to their nil return.

Reaction to Publication of the Figures

The University of Exeter Press Office issued a News Release headed, “*Why chicken farmers are getting a raw deal - but who's making a mint?*” The Press Office correctly anticipated that journalists would want to know more about the mark-up from farm to supermarket from £1.16 to rather more than £3.50 and that the public would be interested in the apparent injustice of the farmer making a profit margin on a chicken of only three pence.

As author of the report, I quickly became a minor celebrity, albeit only for a couple of days. The regional ITV news, both BBC Radio Devon and BBC Radio Cornwall and the national BBC Farming Today programme all broadcast interviews and there was good regional newspaper coverage, with the national farming press catching up as soon as editorial schedules permitted. The magazine Poultry News made front page news of us. Unfortunately, a two day embargo on the News Release – to give all branches of the media the opportunity to break the news on the same day – was not sufficient for the BBC television news, whose environment correspondent telephoned to request a four day embargo in future.

Pointing out that the study and report were concerned with the economics of production on the farm, not the costs and margins of processors and supermarkets, did not entirely thwart questions on those lines – after all the press notice itself had enquired, “Who’s making a mint?” The question, “Might it be

⁶ Top third by margin per £100 of output.

feasible to add a few pence to the price of a supermarket chicken, the additional sum to be passed in full back to the farmer?" epitomised the sympathy felt for producers.

I was at pains to point out that not only was I unaware of the profit margin on a chicken for either the processor or a supermarket (the study from which we had just published the findings not being concerned with them), but that, notwithstanding the degree of mark-up between farm and supermarket, it is not necessarily the case that either are making excessive profits.

During the time of the study, two processors were taken over by other, larger processors. Other, smaller ones, cut back or ceased producing chickens themselves, concentrating only on processing. Those most committed to producing as well as processing chickens rationalised their businesses with apparent urgency, smaller production units were sold-off or closed, larger ones further expanded.

Given that some processors seemed more concerned to consolidate market share of the processing activity than they were of production, it might be concluded that processing is more profitable than production. However the contraction in number of processors and the unwillingness to sustain inefficient or unprofitable production units suggests slender margins for at least some processors. Furthermore, in a tight and highly-competitive market it would be a rational business strategy to concentrate resources on the core activity.

Although the economics of neither processing nor retailing chickens formed a part of the study, it is known that the wholesale value of chicken meat leaving processing plants for supermarkets is in the region of £1.50 per kg. That makes the typical chicken worth around £2.64 on leaving the processor, special deals apart (the supermarkets tend to run 3 for 2 offers and similar at the supplier's expense). The wholesale value of a dressed and packaged chicken carcass is thus 227% of farmgate value of the live chicken.

Supermarkets are currently selling whole chickens for around £2.14 per kilogram, 324% of farm gate value, a mark-up over wholesale price of 43%. For its 43%, the supermarket has to provide some warehousing, handling and transport, its retail store, with staff and generous amounts of car parking, advertising and other costs associated with retailing, and cover losses to wastage and theft.

It is well known that one UK supermarket reported profits in excess of £1bn from its last financial year and is expected to make in excess of £2bn in the current year. But its closest rival, with a similar market share, made only £0.75bn and in profitability terms has been seen to wobble in recent years. Other

supermarket groups whose annual results are in the public domain have for some years past also been seen to report relatively small profits and occasionally to lose money. It might be concluded, therefore, that supermarket retailing can be very profitable for a market leader, but that profitability largely depends on the marketing success and efficiency of the retailing operation. The mark-up between wholesale and retail prices is not necessarily excessive.

Further Work on the Economics of Broiler Production

The publicity arising from the CRR survey on the economics of broiler production resulted in enquiries about the potential impact of changes to livestock welfare regulation at the EU level: on matters such as maximum stocking density in chicken houses, growth rates, and whether or not ‘thinning’ should be permitted. We are currently examining the economic aspects of such possible legislative changes and look forward to informing the debate.

Un-accomplishing the Rural Future

Robert Fish

Why the Future, Now?

The purpose of this paper is to provide a short critique of an emergent set of policy practices concerned with the envisioning of rural futures. It does so by inspecting recent efforts to storyboard the futures of ‘English countryside’, a category whose meanings and functions are being recast within the ordinary policy realm as well as being increasingly opened up by new forms of experimentation in space-time. Alongside conventional assessments of the challenges now facing rural areas, such as the recent Rural White Paper, the Curry Report, and the Haskins Report; one of the government’s recent initiatives in the area of futures research - the Department for Environment, Food and Rural Affairs (DEFRA) *Horizons Scanning* programme - has recently flagged up a concern with future landscapes as one of its four priority themes, in which discussions of countryside loom large. Furthermore, one of the foremost quasi-state organisations shaping the terms of this debate, the Countryside Agency, has recently published a highly projective *State of the Countryside 2020* report, conducted with the help of futurologists working for the *Tomorrow Project*, an independent charity that has embarked on “a programme of research, consultation and communication about people’s lives in the next twenty years” (www.tomorrowproject.net).

The entrance of futures work is arguably one of the more interesting, yet somewhat perplexing, recent developments in the public policy arena. After all, a desire to tame and accomplish unruly future time is a condition of the policy making process, so why is it the case that state apparatus are now readily creating programmes of work that seek to differentiate themselves from, or better still, exceed this standing concern? And why is it the case that through this process a whole network of other organisations, institutes and foundations explicitly using rural ‘futures’ as an analytical category to guide their work are now being enrolled into the strategic efforts of policy discourse? The answer to these questions is perhaps not hard to fathom. In one significant sense, the parameters of this new trajectory of thought and practice reflect perceived limits in the ordinary machinery of governance. They reflect the feeling that the methods and mindsets of policy work are too preoccupied with filling in the operational details of short-term planning cycles to grasp an increasingly unstable and uncertain tomorrow.

This logic is neither peculiar to our times nor to the work of public policy. Three decades ago Bundy (1976, p.67) wrote of an embryonic futures movement drawn from diverse sectors of economy and society and which, among other things, was built out of “a profound fear of impending catastrophe unless interventions occur in time”. The origins of such a movement have been well rehearsed (Schwartz, 1998; Ogilvy 2002). Typically, they are traced back to the planning departments of large commercial operations, particularly the work of Royal Dutch/Shell and its efforts to change sedentary ways of thinking about future markets for oil in the early 1970s. State and

quasi-state policy domains that increasingly employ the category of futures within their work have readily absorbed the language, tone and techniques of this evolving corporate discourse. It is a discourse where open time is now broached through the flexible logics of ‘scenario building’ and ‘envisioning’; where operational planners are now ‘reflexive self-learners’ engaged in ‘strategic conversations’ with these alternate futures; where critical uncertainties are now matched with ‘novel’ thought and ‘pre-emptive’ solutions (see Fahey and Randall, 1998; Lindgren and Bandhold 1998; Ringland 1998).

The question that guides the concerns of this paper is whether this brave new world of futurology amounts to anything especially different from the world of ordinary, mundane, rural policy formation. In particular, the paper explores this concern by way of the insights of the Tomorrow Project’s *State of the Countryside 2020* (SoC2020) envisioning exercise, a process in which I was invited to engage, and for whose insights I am therefore partly responsible. I begin by providing a short overview of the Tomorrow Project’s work and explain the terms on which SoC2020 report was constructed. I then use this overview as the basis for a critique of its underlying assumptions and purpose. My chief argument is that while there is good reason to claim that narratives created in the arena of professional futurology rest on open and flexible stories of future space-time, they have little choice but to submit themselves to the more closed temporalities of common place policy work. Or to put this another way, in spite of their motivation to be something ‘over and above’ the longstanding machinery of policy making, the dilemma for rural envisioning exercises, such as the work of the Tomorrow Project, is how to avoid confirming, rather than challenging, a minimal sense of rural future.

Inside Tomorrow: 2020 Countrysides

The Tomorrow Project was set up in 1996 by two individuals with a longstanding interest and experience in community affairs’ programmes. The mission of the Project is to “help individuals and organisations to think and learn about the future of people’s lives in order to a gain a better understanding of the present and to learn about the choices which will influence the future”, (www.tomorrowproject.net) and covers a diverse range of themes from social exclusion and poverty to the changing nature of families and friendships, learning, and faith and values. The nature of its work was initially informed by a series of consultations with what the directors considered some of the most “original and influential”¹ figures in contemporary public life but has been taken forward through a process of shared discussion and learning with representatives of a diverse set of social constituencies: banks, public sector institutions, community groups, and so forth. These stakeholders in the Tomorrow Project keep the charity operating with small donations, typically from community affairs and corporate responsibility budgets, but it also has over 17,000 people who are kept abreast of the project’s work and who, to various degrees, participate in its formal programmes of work. What distinguishes the project’s work from merely planning, its founders

¹ This comment and other un-attributed ideas that follow are derived from a depth-interview conducted with a Tomorrow Project founder.

suggest, is an attempt to “leap beyond” short-term cycles and to take the “long view”. They fashion this process around projections up to the year 2020, a marker in time they consider to be intelligible, but suitably distant from people’s lives today.

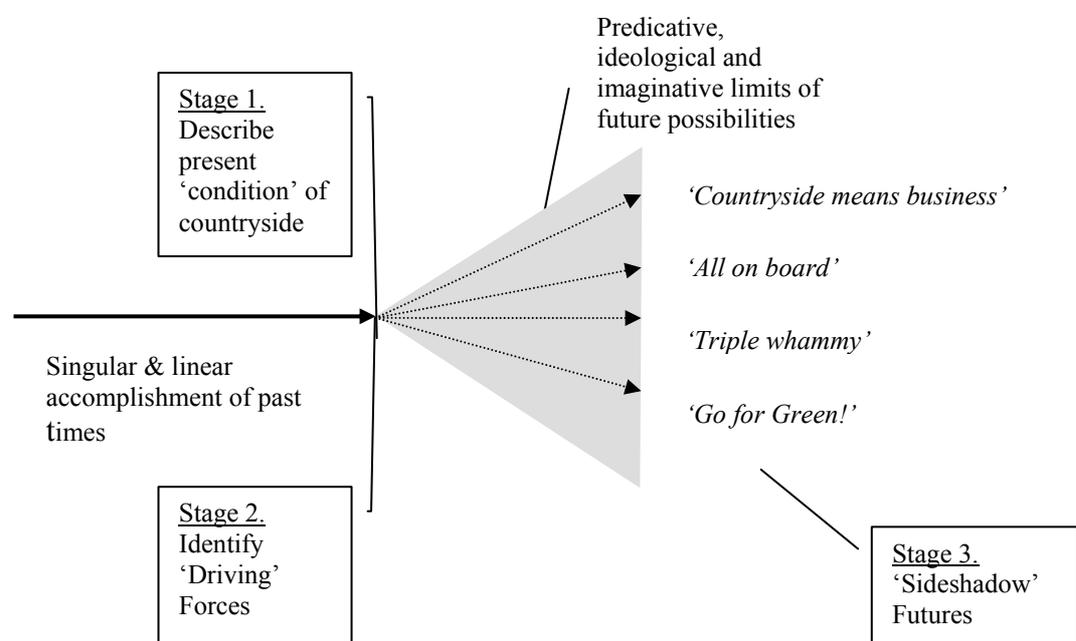
As a piece of consultancy work, the role of the Countryside Agency in orchestrating the recent *State of Countryside 2020* (SoC2020) was something of a departure in tone from previous endeavours, where the relationship between project sponsorship and work undertaken has always worked in an oblique fashion. As my analysis will gradually make clear, this ‘interested’ role of policy actors runs to the heart of dilemmas within futures work, of which the terms and findings of SoC2020 are no exception. That said, it is nonetheless worth highlighting from the outset that the Tomorrow Project harnessed its work on future countryside by drawing on what it termed the “intellectual capital of tomorrow”; a group of people with no necessary expertise in the countryside, but who understood and shared the project’s “will to think in the long term” through shared discussion and learning. For the specific terms of the SoC2020 exercise, this group was extended to include persons with more formal expertise and interests in countryside issues, not least the Countryside Agency, and involved a combination of workshop and in-depth interview discussions. My own role in this process initially started in the capacity of an ‘expert’, helping to inform the underlying issues in its rural work. I then participated in a consultation exercise in which interested stakeholders discussed prevailing issues surrounding the long-term future of rural England. It is not my purpose here to provide a blow-by-blow account of the discussions that took place in formulating this report. Rather, what I wish to do is describe, very briefly, the broad terms on which its story of future countryside was ultimately constructed (see Figure 1) and to use this as the basis for a short critique of its methods, assumptions and purpose.

Let me begin by stating that this process of storyboarding rural futures followed a framework laid down by the previous inquiries of the Tomorrow Project and involved four central questions around which scenarios of English countryside could be produced. These questions formed the basis of the final SoC2020 report and were, in the following order:

- | | |
|--|--|
| 1. <i>Where are we now?</i> | i.e. producing statements about issues defining the contemporary condition of countryside. |
| 2. <i>What are the drivers of change?</i> | i.e. identifying forces that will shape the unfolding condition of countryside. |
| 3. <i>What are the possible outcomes?</i> | i.e. determining the possible consequences of these forces at a future point in time. |
| 4. <i>What are implications for the present?</i> | i.e. suggesting in light of these alternative stories what should be done now. |

SoC2020's process of storyboarding the rural future begins by inviting participants to sketch out the current 'condition' of rural England. These sketches were then fleshed out through facts, figures and extended reportage within the final report itself, and function as the antagonistic context in which discussion of the rural futures is made meaningful and important (i.e. on the 'threshold' of change). Its picture of the 'here and now' is not a device around which a normative vision of the future can form. For instance, it is not like the recent findings of the *Policy Commission on Future of Farming and Food*, in which the present is held up as distinctly more 'inferior' to the Commission's version of the future (see DEFRA 2002). More significantly, it constructs the 'present' as if it is one moment in the evolution of well established trends: the product of inexorable social and economic forces that will inevitably come to shape the terms of future time as well. It produced this logic by inviting participants to identify what it termed 'drivers of change'. So, for instance, the report comes to write of longstanding developments in the global economy which it claims will have "profound consequences for the next two decades" (Moynagh and Worsley, 2003 p.14), from the consolidation of a 'must fit me' culture and the rise of an 'experience based' economy to the spatial concentration of labour markets and the strengthening of knowledge-based industries. These processes of change, it goes on to claim, will be filtered through deep-seated traditions and social processes surrounding the idea and experience of rural space, such as enduring appeals to rural landscape in formations of national identity, as well as the abiding role of the middle classes in the constitution of rural space.

Figure 1: Envisioning and enacting rural futures



For my purpose, the important point to note about this framing of the rural future by SoC2020 is its implied sense of temporal determinacy. Its concern with 'drivers of change' is to elevate, from the outset, the importance of historical (i.e. accomplished)

processes to a reading of future (i.e. unaccomplished) space-time. As an exercise in storytelling, this process rests on the simple premise of ‘forward causation’: the notion that events arise because of occurrences that precede them. By evoking the principle of forward causation, SoC2020’s story of rural future works on the basis that, since the past is already accomplished and known, it can act as a resource by which to tame an unaccomplished and indeterminate future. Through recourse to ‘drivers of change’ the past is able to serve a predictive function. It lends the future a sense of certainty and determinacy.

Herein lies my first critique. The term ‘drivers of change’ is endemic to the language of futurology and one that is increasingly employed within policymaking circles more broadly. Presumably, its value comes from focusing hearts and minds on the ‘problem context’ within which policy processes are sealed and must ultimately respond. Yet, it would also be easy to conclude that the use of this category is effectively a way of assigning the imagining of futures to a rather benign and pragmatic process of ‘choice within constraints’. Indeed, to speak of ‘drivers’ is to employ a discursive repertoire that seems to suggest that stories of future time operate within a particular set of pre-determined limits. We might therefore say that, as a way of contextualising futures, the interesting principle at the heart of these kinds of exercise (that of open, unaccomplished, infinitely pliable, time) is very much stifled from the outset. Rather than provide a basis for critical reasoning (e.g. on what basis, and on whose authority, is the rural future being ‘driven’ in this way?), the idea of driving forces creates the automatic context through which futures *must* unfold. That is to say, processes that are inherently fragile, *that need be re-accomplished*, (such as the ‘abiding’ role of the middle classes in the constitution of rural space) are valorised and made real within future time rather than being interrogated. The idea of ‘driving’ forces, in short, runs the risk of making the future a self-fulfilling prophecy.

Within these ‘given’ limits, the SoC2020 exercise then proceeds to enact a second form of temporality. This concerns the Project’s third question: ‘What are the possible outcomes?’ and is what the narrative theorist Gary Morson (1994) has rather eloquently referred to as the process of ‘sideshadowing’. According to Morson, sideshadowing is the means by which a given sequence of events is cast in the shadow of alternatives, and is one designed to evoke a more open form of temporality. It emphasises that one determinate outcome could plausibly be otherwise; that other sequences of occurrences may occur, even if they ultimately do not. In short, sideshadowing encourages us to confront the crucial ‘what if?’ of time. It narrates occurrences as one expression of a range of possibilities. It admits that one form of actuality is actively competing with another, alternative, set of events. In the discourses of futurology, these alternatives are called ‘scenarios’ and as SoC2020 explain:

“Scenarios are no more than sophisticated version of what individuals do in their everyday lives? People are always asking ‘what if?’- ‘What would happen if we went on holiday in July rather than August?’ They then play out the possible results in their imagination. Scenario planning is much

the same. Scenarios are descriptions of what alternative futures may be like” (Moynagh and Worsley, 2003, p.12)

The creation of sideshadows is a hallmark of the Tomorrow Project’s work and is central to the logic of futures work more generally. Its aim is to follow the different threads of forward causation to see where they might lead. It seeks to think through the different ways events might be played out over time. It asks, given a particular set of trends and drivers, what variations of future time are possible? For instance, Moynagh and Worsley (2003, p.92) highlight: a ‘*countryside means business*’ scenario in which “rural England develops in an environmentally sustainable direction and is socially fragmented”; a ‘*Go for Green!*’ scenario in which “a more environmentally sustainable future ...[]...is also more socially fragmented; an ‘*All on board*’ scenario in which greater social cohesion combines with less environmental sustainability; and a ‘*Triple Whammy*’ scenario in which “environmental, social and economic sustainability are combined.”

Herein lies my second critique. It is interesting to reflect that, when instructed to create these visions of rural future, participants in the SoC2020 consultation were asked to create not only *challenging* scenarios of future time but also *plausible* ones. Why is this potentially problematical? The idea of plausibility in this context is that it is the enemy of open time. After all, what does it mean to speak of plausibility? In one sense, plausibility is meant to fashion future time around a sense of realism. It is meant to appeal to the idea of ‘likely’ outcomes and in so doing imbue those outcomes with a sense of credibility. But the criterion of plausibility is another way of saying acceptability: acceptability to what already is in place; acceptability to the prevailing order of things; acceptability to *a priori* assumptions about the inexorable nature and direction of change. If future time is unaccomplished - *if it is truly open to change and transformation* - then why does it need this plausibility check? Whether the SoC2020 realises it or not, the idea of plausibility, I would argue, involves bending future time to the interests of the present. It allows these interests to be abstracted as a rather pragmatic, almost benign, set of limits over future possibilities.

Furthermore, despite expressing four competing visions of future countryside alongside its desire to avoid asserting a singular, normative, vision of future time, there is nonetheless an implicit (and in many respects explicit) scheme of value in place. The report suggests that there are many potential countrysides, and it is careful to conclude that its own four scenarios are not exhaustive. Yet it is not necessary to be a wily reader of discourse to realise that the ‘triple whammy’ scenario is seen as distinctly more superior to the ‘countryside means business’ scenario. SoC2020 implies as much when it sees fit to suggest that, “this is the scenario that *many people would want*, but it is *very demanding*” (*ibid* p.9, author’s emphasis), and that the “overall theme of the report is that “environmental, economic and social sustainability *can be* combined, but it will be *extremely difficult*” (*ibid* p.13, author’s emphasis). The future may be open to quite different possibilities; but it is only one future that really matters here. As I will now show, this is a highly opportune situation indeed, for it would be fair to say that, if the work of the Tomorrow Project was designed to

open up the rural future to its alternatives, instruments of power and influence that fund such discussions are then faced with a dilemma: what should it *do* with all these unaccomplished futures?

Arguably, the commissioners of a report can do one of two things. Either they can use these scenarios to challenge the assumptions about how tomorrow is thought about (i.e. self-reflexivity) or more likely, they can use them to help make interventions in future worlds (i.e. pro-action). Though SoC2020 steps back from detailing the specific policy implications of its futures work, it nonetheless suggests from the very outset that:

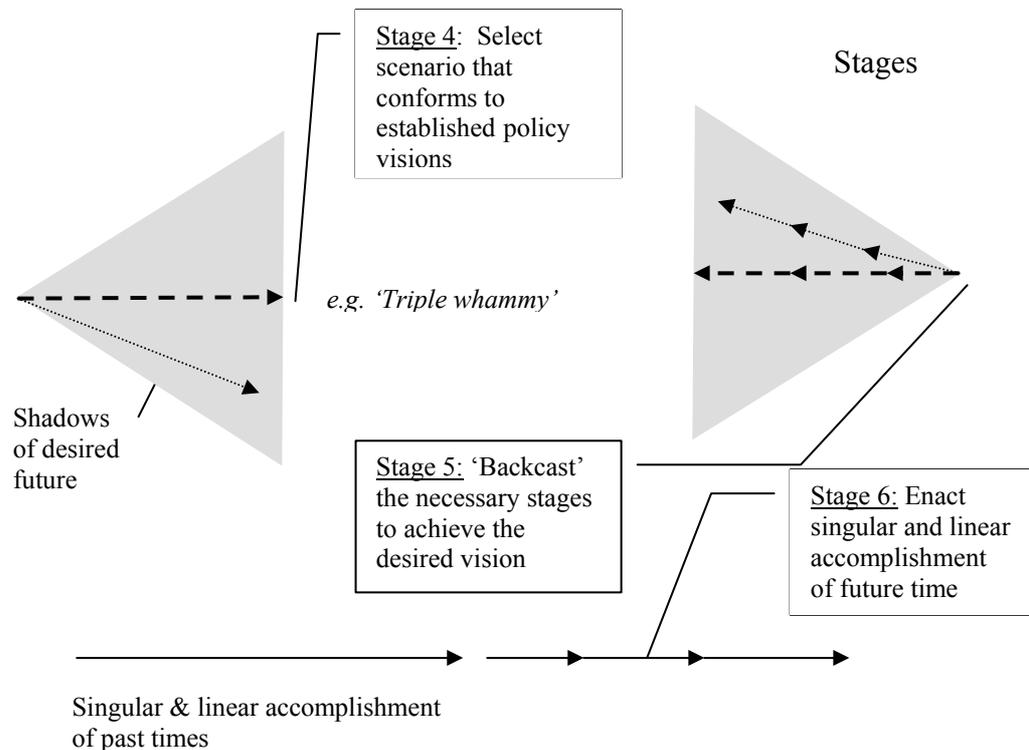
“thinking ahead enables individuals and organisations to *shape the future*. They can explore possible ways in which the future may unfold, envisage what would be desirable and decide how to *bring it about*” (Moynagh and Worsley, 2003 p.11, authors’ emphasis).

It is in this move between opening up ‘futures’ and shaping ‘The Future’ that I would suggest such futures work makes a decisive leap; one that runs to the heart of dilemmas over the critical and creative role of futures work within the policy making community. The future may be open to a range of possibilities, but the SoC2020’s approach is only worthwhile to the policy community that funded it, and whether it can submit these alternative visions to a future already accomplished and foreshadowed (see Figure 2). Such is the way that the SoC2020’s concern to elevate issues of plausibility in producing its scenarios can be partially explained, as is its elevation of a seemingly unproblematic ‘sustainability’ scenario. Herein lies my third critique: whether it realises it or not, SoC2020 is framing its account of the future to be amenable to the policy making world that it ultimately serves. This issue is perhaps most explicitly expressed by a recent research brief issued by the Horizon Scanning research programme entitled ‘Rural Futures: Scenario Creation and Backcasting’ (DEFRA 2003). As part of the key questions guiding this work it asks, “If current trends continue, what will the countryside look like in 20 and 50 years time? And “What are the possible scenarios?” In doing so we have two questions that are highly congruent with the outputs of the Tomorrow Project and in fact, it is the Countryside Agency’s work in this area that should be taken into account for any potential applicant to undertake this research brief.

But these two questions are then followed by further questions: “which of these scenarios are *consistent* with... [the UK Government’s]...Rural White Paper?” and “What policy visions are required to make the *desired* scenarios (or aspects of scenarios) a reality?” If the question that arises for policy makers from futures research is ‘what should it do with all these unaccomplished futures?’, then the answer surely is ‘determine which scenario approximates most closely with a vision already created and then proceed appropriately’. That the research brief is entitled ‘scenario creation and backcasting’ is highly indicative of what is at stake. Scenario creation means creating alternative futures, whereas backcasting is another way of

saying backward causation. The former opens up future time to its sense of possibility while the latter relies on the creation of a normative future that ultimately supplants the plural futures initially created. Thus, mechanisms for thinking about the future in a more open and indeterminate fashion may, at first glance, look like discussions about how to envision the future in alternative and challenging terms but in the final assessment they risk functioning as legitimising devices for a planned, foreshadowed vision. In this particular case they enter back into the orbit of conventional policy formation by informing a Rural White Paper starkly and tellingly entitled ‘Our Countryside: *The Future*’ (DETR, 2000, author’s emphasis). For all its concerns to provide contrasting ways of thinking about rural futures these alternative, sideshadowed futures become merely a suite of options deemed less or more desirable to the moral geographies of existing policy frameworks. They run the risk of being simply being absorbed into the rather closed temporalities of the wider policy realm.

Figure 2: SoC2020 Envisioning exercise as it then enters the wider policy domain



All These Useless Futures

The basis of this short critique is, of course, entirely unproblematic if we were to accept the normative visions of those who wish to make the decisive move from a ‘plural’ to a ‘singular’ future; the decisive move from the scenarios of SoC2020 to ‘The Future’ of the Countryside Agency’s Rural White Paper. Read this way the critical and creative practices of the rural futures movement is part of the process by

which unaccomplished time-spaces are able to be colonised according to shared *a priori* assumptions. Its distinctiveness therefore comes from the broader planning scales on which it operates (typically 20-50 years), and the inter-subjective spaces it grants stakeholders in which to crystallise and shape (in its own image) the prevailing direction of change. Yet my feeling is that something is clearly lost from such an exercise as it relates to the critical and imaginative potential of a futures movement within the public policy domain. Is its purpose simply to confirm the assumptions about established programmes of action, or to challenge received wisdoms? Is it meant to manage the inevitabilities of inexorable ‘driving’ forces, or to go against their grain? Is it meant to contrive pragmatic responses to the ‘problem’ of unruly open time or inspect why certain futures become ‘implausible’? Is it meant to secure the final enclosure of open time, or to keep our memories of the future open? As I have hoped to show by way of one instance of this work, the role of the futures movement for policy makers tends to be broached from the former side of these debates. This may indeed be the basis for one kind of critical futures project. Whether it amounts to anything especially new and challenging for the spatial-temporal incursions of rural public policy is much more debatable.

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Agricultural Restructuring: The Potential Role of Joint Venture Arrangements

Martin Turner and John Hambly

The Drivers of Agricultural Restructuring

Farming in the UK is currently undergoing a major transformation, pressurised from a great number of different forces. Over the last few years the industry has been subjected to an unprecedented degree of scrutiny and comment, as the immediate problems resulting from BSE gave way to the economic downturn from 1996/97 (officially recognised as the worst since the 1930s), capped by the FMD epidemic of 2001. All of these major events have had dominantly negative effects on the buoyancy and vitality of the farming sector, both through their direct impacts at farm level (in terms of depressed product prices, actual loss of production and higher costs) and also, though less tangibly, because of their impacts on the people who make their living in farming. Other factors are also having an important effect on the profitability of farming among which the more important are:

- Changes in food marketing chains, which over time increasingly place primary producers at a relative disadvantage in terms of market power.
- Increased consumer concern for food safety and quality, which are having significant farm-level impacts in the short term, though this may provide market opportunities in the longer term.
- The growing pressure for farming to achieve higher environmental standards to ensure long term sustainability.

The farming recession of the last few years, together with the inescapable pressures for change, appear to have had a number of far-reaching effects on the industry. These are becoming evident both in terms of impacts on the current generation of farmers (falling retention in the industry) and through an adverse influence on the career aspirations of many of the next generation of potential farmers. Moreover, in the search for improved competitiveness by the industry it is widely accepted that further significant re-structuring will be necessary. The government's identification of the benefits of greater collaboration among farmers as one of the industry's strategies for future prosperity provides a further driver of the process of restructuring (Cabinet Office, 2002).

This re-structuring will take many forms, among which the trend towards an increased polarisation is one important facet. This duality, with much larger, commercially-focussed businesses able to produce food commodities at competitive prices in co-existence with a greater range of smaller, part-time farming enterprises has been widely anticipated (see, for example, McInerney, 1994). But for those whose interests lie with the smaller and middle range farms,

currently surviving if not prospering, the question must be: ‘What is the future for farmers whose resources do not permit a rebirth as a large business, yet whose aspirations are still to earn a living in farming?’ It was in an attempt to provide at least a partial answer to this question that the research reported here was undertaken.

Researching the Potential Role for Joint Ventures in Dairy Farming

The dairy sector has been particularly hard hit through the farming recession for a number of reasons, one of the most significant of which has been the medium to long term consequences of the deregulation of milk marketing in 1994. This has inevitably accelerated the rate of structural change in this sector, in both the producing and processing industries, through the greater exposure to market forces consequent on deregulation (McInerney et al, 1994).

During 2002/03, Objective 1 Cornwall funded a CRR study which looked at the potential for joint venture arrangements as one way of assisting restructuring among dairy farm businesses in Cornwall, albeit with clearly expected transfer benefits both in the Southwest and more widely. The project aimed to ‘develop and implement a process of dairy farmer joint venturing that will enhance the competitiveness of the industry and lead to its further diversification’. It not only involved research into the drivers and possibilities of joint ventures in the context of agricultural restructuring, but also expected to service the agricultural extension sector so as to provide a wider range of change alternatives (Turner and Hambly, 2005).

This paper draws on some of the findings of the research in discussing the future potential of joint ventures in UK agriculture. While the examples are inevitably drawn from the dairy sector, the potential application of joint ventures in the agricultural sector is clearly much wider.

Some of the Benefits of Joint Venture Arrangements

More efficient use of ‘fixed costs’

In the past there has been a tendency for farmers searching for ever better financial performance to focus largely on gross margin improvement, while passively accepting fixed cost inefficiencies. Now that gross margins are actually declining due to reducing commodity prices and a slowing down of technical innovations, farmers seeking to strengthen their farm’s profitability in order to remain competitive must now actively reduce their fixed cost burden. Fixed costs, so called, include labour, machinery, land and general (administrative and service) costs.

Meanwhile the seasonal output of many machines, and thereby the potential labour efficiencies, are increasing faster than it is generally possible for farm units to increase in size. Moreover, the fact that the levels of short term land rentals are not declining relative to margins illustrates that farmers' view increasing scale as one solution. Machinery rings have helped enormously in the fixed cost equation and should continue to grow in importance since they have the potential to provide an ideal solution for many farmers. However, there can no doubt that farmers will continue to look for solutions that best suit their own individual circumstances.

Sharing machines and labour has been an on-going, and in some cases workable, method to spread costs. There is considerable anecdotal evidence, however, that machine sharing in practice is far from perfect. One common problem is that arguments or tensions arise over issues related to machine maintenance, frequently involving the most basic servicing routines such as machines not being cleaned, greased, or properly repaired. Further, the sense of ownership can become vague over time and neglect may ensue. In any case, sharing a larger machine only reduces depreciation per hectare, a relatively small proportion of the cost burden. Fuel efficiencies on per hectare basis are not improved to any significant degree, and a reduction of repair costs per hectare is also unlikely, some would say impossible, when ownership is shared through a machinery ring or similar. The largest cost advantage arising from shared machinery is likely, therefore, to be the cost of labour per hectare since the larger machine will allow for greater efficiencies of use.

Better use of farmers' skills and specialisms

Fixed cost reduction is only part of the story. There is widespread recognition of different skill sets with considerable evidence that at least some of the differences between the financial performance of bottom third and top third enterprises can be attributed to particular skills and attention to detail. How do we find a mechanism which increases farm income by using the available skills to better effect? One route to improvement has been the trend towards using specialised contractors, evident in a range of specialisms from agronomy to sheep shearing. Though there may be a range of drivers for these trends, one result should be the more effective use of specialist skills.

Joint ventures provide an opportunity to apply this approach more widely within the farm business. Typically, within any group of farmers one may be an excellent stockman, one may have first class arable production abilities, one may have excellent grassland management skills, one may be a very good business manager, and so on. Some farmers, of course, may excel in more than one area. But, in the context of independently managed mixed farms, it is likely that at least one enterprise or supporting activity in each is under-performing because of lower skills or relative indifference. Most farmers know which are their stronger interests and may have to live with their weaker areas. Often, this shows up in

the financial performance of the different areas of the farm business. In principle, joint ventures between separate farm businesses could provide the ideal mechanism, through providing a means by which the machines, labour and production specialisms and skills of each may be utilised for the good of all while leaving a high level of autonomy with each individual farm business.

The main purpose of setting up such joint ventures is that 'economies of scale' should be applied to the production process but with individual producers retaining their own autonomy, albeit within defined parameters. It is in effect horizontal collaboration as distinct from vertical integration, and it has the potential to provide for the participants economies of scale and a better use of resources, most notably the sharing of managerial skills. Joint ventures of the sort studied represent collaboration in production rather than in marketing, processing or the purchasing of inputs, although there may well be potential benefits for some farmers in applying the principles more widely. The process of forming a joint venture is very much from the bottom-up; that is, the commercial and other objectives of the parties lead the process until a detailed commercial framework is identified. An appropriate form of legal structure can then be produced, or it may be simply purchased as in the case of a limited company. Whatever the structure, it should aid the aspirations of the parties, whilst limiting the risks having regard to the extent and nature of their respective involvements.

The Principles of a Joint Venture Arrangement

The principles of a simple joint venture are depicted in Figure 1. Although in this diagram a service company is the unifying infrastructure, any appropriate structure can be adopted depending on the circumstances. The principle is common to all dairy farms, with the exception of farms with 'flying' herds, in that there is one *profit centre*, namely the milking herd and its milk sales, and two *cost centres*. One cost centre includes the management of dry cows, the calving of cows, the rearing of calves and dairy followers as herd replacements; and the other is the production and provision of feed, typically grass and forage production with purchased concentrates. When two dairy farms are amalgamated under a legal umbrella, which in turn does the farming, then the cost centres are transformed into profit centres since the legal entity pays one of the farmers to provide that service.

Fine Tuning a Joint Venture Agreement to Suit Different Circumstances

During the project five existing joint ventures among dairy farmers, situated throughout the country, were visited. Although showing some common features, which involve most of not all of the principles of joint ventures, each one had its own distinctive features.

One was set up as a farming partnership, another was a type of share farming arrangement, yet another was a contract farming arrangement and there were two

farming companies. Some other arrangements have sometimes been called joint ventures, for example farm business tenancies, machinery sharing, and share milking, but these seem to us to be distinct because they do not generate immediate economies of scale for the whole combined farming enterprise nor necessarily involve the degree of skills sharing possible under a true joint venture.

Figure 1: Simple model for a joint venture

1. Two or more dairy farmers set up a company
2. Most dairy farms have 1 profit and 2 cost centres
3. Cost centres of 'young stock' and 'forage production' become profit centres
4. Company Directors plan work schedule
5. Company contracts work via purchase orders to provide income to the farmer directors
6. Instead of 1 profit centre and 2 cost centres, company structure provides 3 profit centres
7. Result is the farm is more profitable through achieving economies of scale, and better use of resources.
8. Three layered agreements needed, comprising management and purchasing rules

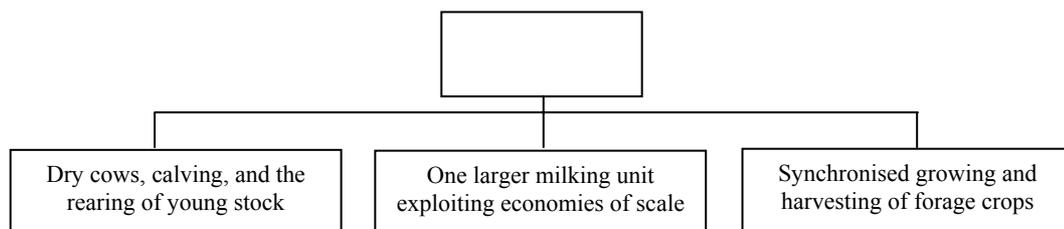
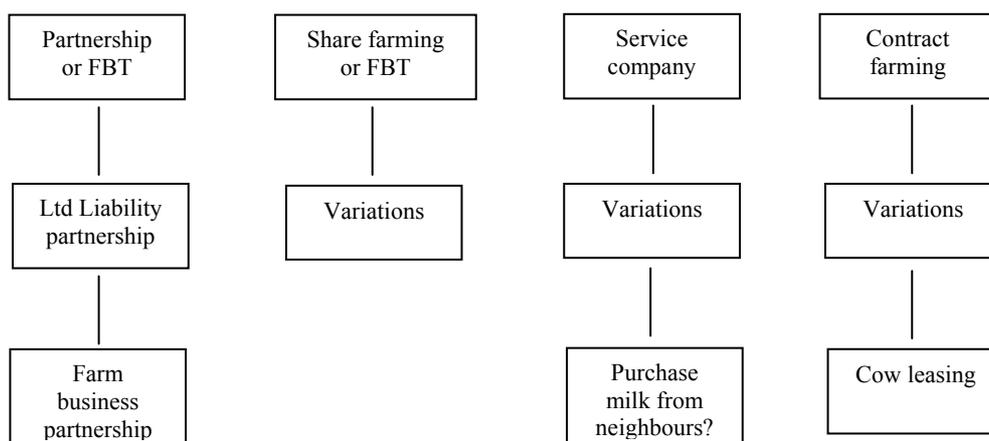


Figure 2: Types of models to use as a basis for joint venturing



Most joint ventures are not simple ‘off-the-shelf’ agreements but involve fine tuning the circumstances of the farm businesses, the aspirations of the farmers involved and are often facilitated by farm business tenancies (FBTs) as can be seen in Figure 2. The principal models identified by the research are partnerships, share-farming, and the use of a service company.

Partnership between two tenants

In this example two neighbouring tenant farmers rent land from the same landlord and have roughly the same assets, although one partner has more hectares and a larger milking parlour. Because of the difference in their respective contributions, an unequal partnership was formed with the smaller party owning 40% of the partnership. The two herds were amalgamated (with a new BCMS herd number) and, in order to avoid a non-producing quota holder (NPQH) situation arising a new Rural Payments Agency (RPA) number was ascribed to the partnership. This arrangement satisfies the RPA although from a legal position the quota holding is not a partnership asset as quota is tied to the land. Likewise, to maintain a sound legal footing, two FBTs were established to allow both farmers to farm each other’s land. Economies of scale are clearly demonstrated through a larger herd of 150 cows and one set of larger machinery which replaces two smaller sets of farm equipment.

An important feature of any joint venture is the sharing of the manual workload and the more effective utilisation of management skills. In this case the routine daily commitment of milking is halved, one party choosing to undertake most of the work associated with machinery (including field operations and routine maintenance), whilst the other rears the calves through to dairy replacements. Partnership profits are shared equally up to an agreed threshold (about £10,000) and over this on a 40:60 basis. Because of the partnership arrangement both parties are jointly and severally liable and therefore share all of the business risks.

Share-farming agreement

Share farming agreements in the UK are normally established in combination with FBTs and the example identified by the project is no exception. Most share farming agreements are between an active farming party on the one hand and a landowner, who takes a management role only, on the other. In our example, however, two owner-occupier neighbours, one party having a greater contribution in terms of assets than the other, had formed a share-farming enterprise. One party is younger and eager to operate a larger business, whilst the other is keen to withdraw from full time farming whilst still retaining a managerial interest. As a result of merging the businesses the younger party gained a larger, more viable business whilst the other party benefited through concentrating on their off farm business interests. It is noted that there is a taxation advantage in operating a share farming arrangement compared to simply letting the land under an FBT, since the non-farming party is taxed under

Schedule D case 1 rather than Schedule A. In this example, a 40:60 profit sharing agreement was established, in accordance with the asset contribution rate, but with the major difference compared with the partnership arrangement that profits are assessed after a contract charge, which in this case amounts to approximately £20,000 per annum, has been levied.

Incorporation model using a 'service company'

During the project two service company arrangements were studied, one operated by two tenants and the other by two owner-occupiers. Taking the tenanted model as an example of incorporation, the background is that two tenants on the same county council estate formed a service company. Both tenants wanted to expand their holdings, and when another council farm became vacant the landlord agreed that both tenants could jointly farm the vacant holding. A service company was the preferred option since, at some time in the future, if required, any new council replacement tenant could purchase the shareholding of the farming company. The advantage to the council estate management was that the estate was not further rationalised in that three holdings remained in place thus not contravening council policy. Yet the combined farming business was likely to be more profitable with two operators rather than three because of the achievable economies of scale. This arrangement provides a number of benefits:

- tenants' capital is released from selling surplus machinery;
- the tenants retain their security of tenure;
- the council is able to concentrate investment on one holding;
- the tenants' succession rights is not compromised; and
- there are gains in terms of the efficiency of labour use.

However, on the negative side there are some initial set-up costs, an extra set of accounts has to be administered and, as with any joint enterprise, there is the potential for disputes. A service company is probably the most flexible of all the options, as in many cases where farmers entered into partnerships, these have developed into company structures over time through the growth of the business, simply because of its advantages in terms of tax efficiency.

Some Conclusions about the Potential Role of Joint Ventures

Joint ventures have the potential to make available to the current generation of dairy farmers in Cornwall the *economies of scale* which other regions, and countries such as New Zealand, currently enjoy. This project focussed on the potential for farmer collaboration in *production* rather than in marketing, processing or the purchasing of inputs, and in that sense it was innovative; but the principles of joint ventures can equally be applied to exploit the benefits of vertical integration or even of diversification.

Because of its potential to assist structural change in the industry, in the right circumstances joint ventures may be seen as an alternative to both expanding the farmer's own herd or, worse, to going out of production. The use of a joint venture arrangement has the potential to provide the following benefits to the participating farmers:

- Lead to better economies of scale.
- Allow the improvement and/or re-deployment of production.
- Promote the development of diversification activities.
- Lead to increased leisure time.
- Makes access easier for new entrants.
- Present an alternative exit strategy.
- Make farming more enterprise-focussed.
- Facilitate more environmentally friendly production units.

Although joint ventures are more common in crop production, the study identified a growing interest in its potential to assist dairy farmers to meet the coming challenges. UK dairying will soon be entering a new phase of reduced intervention support and increased competition from world producers. The availability of information on the rationalisation of dairy farming through joint venturing should be seen as an important contribution to the restructuring of the industry.

However, an effective joint venture requires farmers to do a certain amount of 'thinking outside the box' since as this research shows the possible forms a joint venture might take are not necessarily obvious at the outset. Moreover, many UK farmers are still very strongly focussed on self-reliance and, by its nature, a joint venture involves effective collaboration between the farmers concerned in order to optimise the productivity of the resources available, including the human resource (skills and specialisms, both technical and managerial). It is our belief that this form of business arrangement will become more familiar in the UK's farming sector over the coming years, and will prove to be an important means by which farmers are able to benefit from some of the advantages that increased scale and collaboration bring, thereby maintaining their productive involvement in their industry beyond what would otherwise have been possible.

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