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**FARMERS' SURVIVAL STRATEGIES IN THE NORTH OF SCOTLAND**

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**Abstract**

Small and medium-sized farms all over Europe guarantee their survival by a broad range of strategies and different income sources. In remoter areas of highly developed countries such as the UK, such strategies may be expected to have their own characteristics, both legislative and socio-economic. This paper reports results from a socio-economic survey carried out among 40 Scottish agricultural households in the Caithness and Sutherland region of the North of Scotland, focussing specifically on the diversification strategies of (larger) farms and (smaller) crofts related to the multifunctionality of agriculture. After analysing the land, labour and capital use of farm/croft households in the region, the paper analyses why farms/crofts in this remote area have chosen specific diversification or specialisation strategies, and briefly considers their futures. The survey showed that only a quarter of the average household income of crofts comes from agriculture, and that this proportion (like the equivalent on farms) derives from substantial CAP subsidies. However, these known (if declining) income source may be the basis for the development of small and medium-sized rural enterprises if crofters and farmers are sufficiently educated, skilled and dedicated. The paper shows that, in times of economic decline, crofting (which has been the subject of a recent report to the Scottish Government) and farming in this area can be the basis of farm household survival in remote rural areas of developed countries.

JEL Codes: Q12, Q15, R20, R10

Keywords: farm households, Scottish Highlands, income sources, diversification

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## 1. INTRODUCTION

In developing countries, the World Bank (2007, p.90) has argued that “*the potential of agriculture to contribute to growth and poverty reduction depends on the productivity of small farms*”. This may be disputed, e.g. in the light of developments such as large-scale plantations supplying products to North America, Europe and possibly China. However, historical experience in now-developed countries has been rather different. In such latter countries, economic development as it involved agriculture usually involved the slow (sometimes fast) disappearance of small family farms, often in the process of generational farm handover (OECD, 2006; FAO, 2002), when younger family members were not available or willing to inherit the management of the holding. Across Europe as a whole, this process is most advanced in the more urbanised regions, as can be seen by the higher GDP per capita available in the central regions of Europe (ESPON, n.d.). However, in the margins of Europe (sub-arctic areas in Scandinavia, Western Ireland, Portugal, the Greek Islands, Eastern Poland etc.), this development process seems to be slower, insofar as older people often stay active on their farms when potential successors have already out-migrated looking for better jobs, an easier life, and probably a better quality of life in more urbanised areas.

Agriculture in the remoter regions of developed countries faces the same pressures as the sector in more central regions – the cost-price squeeze and increased regulation of food safety and animal welfare – but in addition there are usually higher transport costs, a more fragmented geographical structure (at both field and farm level), and special landscape and biodiversity considerations. It is also possible that farming in such areas is more “multifunctional” than elsewhere, although such a judgement depends on how these “functions” – economic, environmental and social – are identified and valued. For whatever reason, governments have often introduced special measures, such as the EU’s Less Favoured Areas Directive or the agri-environmental schemes in the early 1990s, offering additional assistance to agriculture in these remoter areas. Over the years, this has resulted in a deep dependence of the sector on such funding, which however is probably paralleled within the public sector by the additional cost of maintaining services such as health, education, etc. over wide geographical areas.

This paper reports some results and conclusions arising from a recent EU-funded research project (TOP-MARD<sup>1</sup>) which had as one of its 11 case study areas the (old) counties of Caithness and Sutherland in the northern Highlands of Scotland, and sought to explore the nature of multifunctionality in agriculture. The region has a somewhat unusual mixture of large multi-enterprise land holdings and small part-time farms (crofts), whose owners (in both sub-sectors) are often pluri-active. However, both sub-sectors face significant economic and political pressures, which threaten their survival. The rest of this paper describes the situation within the Scottish Highlands in general and in Caithness and Sutherland in particular, and argues that survival of crofting depends on a mixture of targeted support for “active” land management (not necessarily all agricultural) and the stimulation of non-agricultural enterprises within a (probably) fairly rigid system of central and local “planning” which seeks to preserve valued features or “functions” in the area.

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<sup>1</sup> Towards a Policy Model of Multifunctionality of Agriculture and Rural Development, [www.topmard.org](http://www.topmard.org).

## 2. CROFTING IN SCOTTISH AGRICULTURE

In the Highlands of Scotland, the historical process of agricultural development took a new path after the suppression of the pre-modern clan system by the emergent British state in the middle of the eighteenth century. Driven by changes in both landownership (often transferred to London-approved agents, at least for a generation) and commodity markets (especially during and after the Napoleonic Wars), the small-scale mixed agriculture practised by the native population – often with elements of communal activities and transhumance - was largely replaced by large-scale sheep farming, operating by managers (“factors”). A necessary corollary was the removal – via a mixture of force and encouragement – of that population (the “Clearances”), either to the growing cities such as Glasgow, or overseas to the new lands of North America and Australasia.

The remaining population was forced to the coastal peripheries, and survived via a mixture of small-plot farming, fishing and other part-time or part-family pursuits, e.g. gathering seaweed for fertiliser manufacture, until post-war trade led to market collapse. In the nineteenth century, survival was made even harder by the strengthening of landowner power and by the onset of the great agricultural depression of the latter decades of that century, when international trade in cereals, wool and meats developed, following the ending of the Corn Laws, the American Civil War and technological improvements in shipping. Landowners switched from sheep farming to deer shooting (for personal recreation or for letting to clients) as the main use of vast areas of poor land, and tolerated even less the presence of local residents with competing demands but minimal purchasing power.

The result was that “crofting”, as the small-scale farming system was called, remained an economic black spot in the UK economy, even as standards of living in the cities improved. In the 1880s, this led to the rise of the Highland Land League (modelled on Irish lines, though with a very different outcome), with seats in the London Parliament. In response, following a roving government enquiry, the 1886 Crofting Act set up a special system of legislation and regulation under the Crofters Commission, under which crofters, grouped in “townships” of scattered housing, received security of tenure as regards the family house, the in-bye land (usually 2-5ha of better land), and grazing rights, managed by grazing committees, on extensive hill land nearby.

In the 120 years since the first Crofting Act, the crofting system has survived, but has become increasingly dependent on other sources of income, primarily from off-farm pluriactivity, farm subsidies, and social welfare payments. *“In March 2002, there were 17,721 crofts, and 12,000 to 13,000 crofters (some crofters have the tenancy of more than one croft). About 30,000 family members lived in crofting households, or around 10% of the population of the Highlands and Islands. Crofting households represented around 30% those in the rural areas of the Highlands, and up to 65% of households in Shetland, the Western Isles and Skye. There were 770,000 hectares under crofting tenure, roughly 25% of the agricultural land area in the Crofting Counties. Crofters had around 20% of all beef cattle (120,000 head) and 45% of breeding ewes (1.5 million sheep)”* (Wikipedia, accessed 7 April 2009).

The average age of croft holders is about 55 years, which might be taken as a sign of a lifestyle system on the brink of extinction although it also applies to about two thirds of all farms in Scotland. However, with continued support schemes, and some “marketing” of crofting by the Commission, new crofters have been attracted and stabilised the average age over the last 5 years. In the wider context, this policy can therefore be seen as a success, as

new entrants were often with young families who enhanced the ongoing demographic patterns.

The Taylor Commission enquiry in the 1950s (DAFS, 1954) was supportive of crofting “*for its own intrinsic quality*” but pessimistic about its survival if it remained dependent on its own resources: “*initiative must come from without*”. Recently, a further enquiry (CIC, 2008) has reversed this attitude, arguing for “*growing, prosperous, inclusive and sustainable crofting communities which enjoy the capacity and the power to develop their own strategic plans and to pursue these with vigour subject to legitimate national interests*”. It is recommended that this “vision” be pursued via clearer, simplified and more localised governance of crofting, based on “*Crofting Township Development Committees with a remit to develop and agree strategic plans for local crofting development, and with more inclusive membership*” (CIC, 2008, para. 1.5.18).

The wider context of Scottish crofting includes:

- Low and variable prices for regional agricultural product (mainly beef and sheepmeat), with less policy support as “decoupled” Single Farm Payments have replaced some CAP market mechanisms. A concluded WTO Doha Round may intensify these pressures.
- High transport costs for farm inputs (and tourists), although these have been modified by better roads (and an experimental “road equivalent tariff” for ferry crossings to the islands), more efficient vehicles and lower fuel prices.
- Many land-extensive “estates” owned by private individuals or family trusts, the legacy of the historical developments outlined above. While highly varied in attitude and activity, these estates have often been criticised for preventing development through their control of most local land and water resources, and through political influence. In recent decades, some areas have been taken over by community trusts (some using new legal opportunities for first-option purchase) or conservation bodies, often with substantial public funding.
- In some sub-regions (especially Caithness), several relatively large commercial family farms, some of which are estate-tenanted and others owner-occupied. These provide a core of full-time agricultural producers engaged in modern technologies.
- A substantial tourist industry with a world-wide customer base. This is highly varied, ranging from high-paying clients of estate shooting and fishing enterprises, through family and senior citizen visitors to back-packers and mountaineers.

The survival of Scottish crofts as a small-scale agricultural system is therefore under active political discussion in Scotland. The general wish to maintain a land-based but pluriactive way of household life with considerable cultural and touristic value is not in doubt, but recent policy has proved insufficient and expensive (and sometimes divisive), and the challenges facing agriculture in the region are unlikely to subside.

### **3. CAITHNESS AND SUTHERLAND**

The former (pre-1976) counties of Caithness and Sutherland form the most northerly part of the British mainland, and were chosen as a case study area within the TOP-MARD project, as a good if extreme example of a remote rural area that suffers most of the problems that can be

found in other such areas, e.g. demographic decline, in- and out-migration, decreasing agricultural profits, and enduring problems of rural development. Sheep farming dominates agriculture in terms of land use, but there are pockets of cattle husbandry and arable farming, especially in the Caithness plains, and on the east coast of Sutherland. The hinterland and the west coast are dominated by rough grazing, scrubs, bushes and the “Flow Country” - a large area of moor and wetland to the east of the higher mountains (up to 1000m) to the west. Less than 10% of the area is covered with forest (and some croft woodland), mostly planted in the 1960s and 1970s (Bergmann and Thomson, 2008).

The population of the area in 2001 was around 39,000, decreasing by between 100 and 200 per year, largely because younger persons (aged up to 35) leave the area for jobs and education. Employment is dominated by the private service sector (with 42% of all jobs), followed by public services (28%), manufacturing (22%) and the primary sector (8% including agriculture, forestry, gaming and mining) (Annual Business Inquiry (ABI) 2007). These figures are roughly in line with those for other rural areas, but, apart from government, the area has the Dounreay nuclear decommissioning site, which provides between 1,400 to 2,400 jobs (out of a regional total of 15,000) and injects approximately £90 million a year into the local economy, roughly a quarter of regional GVA. (Bergmann 2008).

#### **4. CROFTING AND FARMING IN CAITHNESS AND SUTHERLAND**

The total land (and fresh water) area of the region is about 800,000 ha but only 500,000 ha are counted as farmed land, while 79,000 ha is forested. Most of the remaining 200,000 ha is used (if at all) for semi-commercial game sports (deer, grouse, freshwater fish) or for informal recreation (which now enjoys extensive rights of public access over land and fresh water). The annual agricultural census for 2005 reports records 3,293 holdings in the area, with 3,422 persons active in agriculture, consisting of 1675 owner-occupiers, 875 spouses and 394 hired workers. For the same year, the Crofters Commission reported 3025 crofts, of which 2526 submitted IACS forms<sup>2</sup>. The crofters farm probably 50% of the land, mostly in extensive sheep farming, while between 150 to 200 larger-scale enterprises farm the rest of the land and are also engaged in cattle farming. About 1,100 farm businesses in the area applied for CAP Pillar 1 funding. Overall, these figures suggest that farming, while in slow decline, retains a strong importance for the area, since, even if only some 2700 crofts and agricultural enterprises are active, between 25% and 50% of the population live on farms or crofts.

Against this background, the TOP-MARD project aimed at analysing the relation between that multifunctionality of agriculture (MFA) and rural development, so as to develop the MFA concept into a policy tool to promote and support rural development and social cohesion. The project included a survey of 40 farm households in Caithness and Sutherland, conducted in February/March 2007. The face-to-face interviews were conducted using a standardised questionnaire, and covered socio-economic questions, farm-specific information (e.g. farm size, production program, agricultural schemes), farm household information (e.g. spouses, children, grandparents) and information about social, natural and human capital. Individual farmers were identified with the help of local agricultural advisors and by ‘snowballing’, i.e. the first interviewees were asked if there was another person that would be interested in participating in the survey.

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<sup>2</sup> This shows that 22% of crofts in 2001 were no longer farmed or rented out.

As mentioned above, farming in Caithness and Sutherland is characterised by a large number of small agricultural holdings (“crofts”) and a small number of larger “farms”, either “home farms” on large estates, or rented or owner-occupied medium-sized family farms. These larger farms were assumed to be more influential as well as keener to develop their enterprises than small farms that would be presumed to have lower interest in diversifying their farm but more interest in diversifying their labour input. Some 20% of the crofts have already been abandoned in agricultural terms (if not residential ones), or have been rented out to other crofters but have not been given up (to the Crofters Commission) for transfer. The TOP-MARD sample was chosen to contrast these different farm types, and had rather more large and medium-sized farms (expressed in European Standard Units, ESU<sup>3</sup>) than are present in the overall population (see Table 1). For analysis, the sample was divided into crofts (under 24 ESU) and larger farm enterprises (over 24 ESU).

**Table 1: ESU Distribution of Farms and Crofts in Caithness and Sutherland (census and TOP-MARD sample)**

ESUs	Agricultural Census (2001)		Sample (2007)	
	Number	Share	Number	Share
0 - <2	2,292	73.8%	5	12.5%
2 - <4	208	6.7%	5	12.5%
4 - <8	200	6.4%	4	10.0%
8 - <16	159	5.1%	5	12.5%
16 - <24	62	2.0%	4	10.0%
24 - <40	69	2.2%	2	5.0%
40 - <100	93	3.0%	10	25.0%
100 & over	21	0.7%	5	12.5%
Total	3,104	100.0%	40	100.0%

Source: Eurostat and own calculations.

## 5. ANALYSIS

While official data shows that crofters tend to be on average much older than farmers, the sample showed a majority of crofters older than 70, although several were under 40, perhaps reflecting the success of the Crofters Commission in attracting new tenants into crofting in recent years. Although small farmers are sometimes depicted as less educated, most survey farmers had finished secondary school, and several had post-school (tertiary) education. On the other hand, the large majority of crofters had such education, several at postgraduate level. Cross-tabulation showed that higher educational achievements were related to age in both groups, and that producers under 50 years were much better formally educated than older ones: probably an effect of UK educational reforms in the early 1970s which encouraged many more children to attend universities. Better educational opportunities could also be seen

<sup>3</sup> 1 ESU equals roughly 1200 Euros of farming gross margin, see [ec.europa.eu/agriculture/rica/methodology1\\_en.cfm](http://ec.europa.eu/agriculture/rica/methodology1_en.cfm)

in the tendency that younger farmers as well as crofters were more likely to have attended training events that ranged from business management to IT courses.

Regarding on- and off-farm work, farmers and crofters were equally active in the formal labour market, with occupations that were mostly (up to 75%) seasonal part-time jobs. However, farmers only held jobs that used less than 50% of their available time, while crofters were in general more likely to use most of their time for off-farm jobs. In so far as the area is highly dependent on summer tourism, it is understandable that a majority is occupied in part-time tourism between spring lambing and autumn. Only holders of farm with an ESU over 60 stated that they had no off-farm job, and in such farms the main part of the household income was provided through the farm business (including subsidies).

For about 20% of both farm types, a spouse was missing because of divorce (mostly in the 35-44 age cohort) or death (over 65), but children and other relatives helping on the farm were present. Cross-tabulations showed that generally farm spouses were younger than the holders, and less well educated, while on the crofts educational qualifications of the holder and spouse were more or less equal. Most spouses on farms reported that they had done a number of different training courses related to farming, while on the crofts none of the spouses had done so. While on crofts there was a tendency to have a full-time job, the spouses on farms were often just in part-time or even seasonal jobs. Overall, it was strongly indicated that viable commercial family farms are run with the traditional distribution of roles between men and women, while on crofts newer and more urban gender roles are found.

On all farms as well as crofts, there appeared to be no shortage of labour. Nearly 50% of both farm and croft holders already had an identified successor, and it may be expected that at least an additional 25% of the farms will identify one of the children as successor, as they come of age. However, 3 of the 23 interviewed crofters were already certain that they will not have a successor.

Extensive sheep farming as a production system in the Highlands of Scotland involves a simple grazing area (mostly over 200 ha), fenced or not, and sheep are normally left to their own devices apart from lambing time. Crofters generally had fewer farm assets (apart from available family labour and rented land), with an average farm size of 431 ha compared to farmers with 898 ha (mostly grassland and rough grazing). Analogously, the average number of sheep on crofts was about 200 while on the farms it was over 400. In both cases, the stocking rate was under 0.5, reflecting the very extensive production system. Regarding capital use, there was no great difference between the two groups of agricultural enterprises. Human capital use on-farm was different, but natural capitals (landscape features, etc.) were used in a similar way on both types (e.g. bed and breakfast, participation in agri-environmental schemes, etc.)

The most striking difference between crofters and farmers was that all 17 farmers produced cereals or other arable commodities, while only one crofter did this, on a small amount of his land. This underlines that crofts in general pursue a very extensive but small-scale production system that is partly dependent on off-farm income due to the low quality of the soils being farmed.

Annual average household incomes in both types of holding were similar, at €33,529 for farms and €34,794 for crofts, compared to average regional household incomes of less than €20,000 (ONS (Office of National Statistics), 2007). CAP expenditures paid to persons living in the area (identified by postcode) shows that about 1300 enterprises and persons received



Pillar 1 or Pillar 2 funding, to a total of €12 million and €7 million respectively (DEFRA, 2009). Dependence on agricultural income on farms, at €24,000, was higher than on crofts, which produced only some €6,800 a year<sup>4</sup>. Such income is highly dependent on the Single Farm Payment and the Less Favoured Area Support Scheme in which all but one interviewee (who was too late to apply) participated. Due to the fact that LFA payments in 2006 were nearly €45 per ha, the average farmer in the sample could expect to get €36,000, and the average crofter nearly €18,000 per year as subsidies. Comparing these figures to farm income levels, it is clear that farming in Caithness and Sutherland with current commodity prices is only viable with state aid.

Only three farmers and two crofters had applied for young farmer investment as well as other agricultural investment grants. Participation rates in various agri-environmental schemes (the Countryside Premium and Rural Stewardship Schemes, and Land Management Contracts) were very high amongst farmers, but only 50% of crofters participated, due to the low rates of payment. Two farmers but five crofters (all without a successor) had participated in the Farm Woodland Schemes, which have seen a remarkable success in the region: farm woodland in Caithness and Sutherland doubled between 1999 and 2005 while overall Forestry Commission statistics show little changes.

Off-farm employment was the major source of income in crofts, at nearly €20,000 a year, while this only accounted for €4,500 in farms. Other farm-based activities (e.g. contracting) brought in nearly another €5,000 a year on farms, while this was negligibly small on crofts. In both cases, on-farm processing contributed less than 5% to annual income. The other major income source on crofts was pensions and other social benefits, which accounted for nearly €9,000 compared to only €600 a year on farms.

On-farm non-agricultural income sources contributed less than 5% on crofts and 10% on farms, but most interviewees were active in on-farm tourism, processing and marketing of commodities and in landscape management. In some cases, farmers as well as crofters (especially those of younger age) wanted to develop such activities in the next five years. These same interviewees expected that livestock numbers as well as farming intensity would decrease with CAP reform following the Health Check<sup>5</sup>. However, most interviewees did not expect many changes, nor did they want to increase their off-farm or on-farm incomes due to the relatively high levels in 2006.

## **5. CONCLUSIONS AND DISCUSSION**

Caithness and Sutherland in the Highlands of Scotland offer a perhaps unusual but interesting context for small farming, here characterised as “crofts”, which are compared with larger “farms”. With special legal protection, the system has survived for over 125 years, but not without problems, and a recent government enquiry has suggested reform based on the devolution of some powers to “township” (community) level, but with rural development (rather than simply agricultural) goals. Since farm production in the region seems unlikely to cover its costs in the medium term, the survival of crofts as agricultural units will depend on

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<sup>4</sup> During the period 1998 to 2001, extensive sheep farmers in the Highlands made significant losses averaging more than €3,000 a year, and only recently, with the introduction of higher decoupled premiums, have annual incomes (including subsidies) returned to profits.

<sup>5</sup> Current consultations include proposals to target SFP and LFA payments towards areas with special values or difficulties, and/or to top-slice SFPs by 10% in order to fund schemes to maintain beef and sheep numbers.

how (and if) these reforms are implemented, along with levels of CAP support between regions and farmers.

From a neo-classical point of view, we find that land and capital use on both farms and crofts is similar. The difference between types lies solely in the use of labour. On larger farms, labour is mostly used on-farm, and on crofts it is mostly off-farm. The availability (or not) of labour for crofts as well as farms has significant effects on the chosen production systems. Crofts tend to be more specialised in extensive sheep farming, with low inputs, including labour. Farms tend to produce a wider variety of commodities (wheat, barley, sheepmeat and beef) than crofts and to have more intensive (and specialised) sheep enterprises as well in extensive sheep farming. However, the major difference is that farmers are mainly mono-active while crofters are mostly pluriactive.

Regarding survival tactics, we found that basic income-earning strategies on farms can be summarised as a combination of “rent seeking” (Rowley *et al.*, 1988) and “profit seeking”. The bulk of on-farm profits depends on different payments, mainly the Single Farm Payment (SFP) scheme, and the Less Favoured Areas Support Schemes (LFASS). For both types of agricultural holding, commodity production is producing losses and subsidies are needed to sustain production. While farms realise a satisfactory income (including premiums), crofts, with fewer inputs, are getting lower subsidies and therefore have less on-farm income. This leads them to pursue other potential income sources, such as off-farm labour, pensions and other off-farm income. These small farmers seem to ensure survival by better educational qualifications and the diversification of their income sources.

Van der Ploeg and Roep (2003) have differentiated agricultural strategies as “broadening”, “deepening” and “regrounding”. The concept was developed in Belgium and the Netherlands, i.e. an extended urban fringe similar to those near many European centres. If such an approach is transferred to a remote rural area such as Caithness and Sutherland, the obvious question is whether it constitutes a valid explanation of farmers’ behaviour in relation to rural development.

TOP-MARD survey interviewees could have been clustered as to their different diversification strategies. However, farmers as well as crofters seem to have chosen all of these strategies together, rather than concentrating on one of them. In our understanding, therefore, while the concept deserves some merit for explaining the extremes of strategies that can be found at the urban fringe, it lacks meaning for our case study area, where both farmers and crofters have chosen whatever income source is available. Using “Ockham’s razor”, the Van der Ploeg and Roep concept may explain a rather simple farm strategy: earn money in various available ways as necessary, and minimise risk. The concept seems too complicated for the realities in remote rural areas where farmers tend to be as poor as local customers, and both “deepening” and “broadening” strategies seem to be rather a tradition than a novelty, while “regrounding” seems simply to be an economic need of households with low incomes.

Overall, the existing farm and croft holders have adapted two kinds of strategies: (1) farmers have specialised and extended their on-farm business while (2) crofters have specialised and extended their off-farm labour offer to ensure the survival of their business. In both cases, they seem to offset from available other income sources the losses of their commodity production.

Regarding the future of farms and crofts in Caithness and Sutherland, no outstanding new ideas emerged. In some cases, farm holders wanted to explore new business, e.g. social care,

or to invest more in land management activities or similar activities. These new businesses seem to be linked to the decision of individual farm successors to take over the farms in the near future, as these activities are labour-demanding. Most likely farm successors have chosen to seek further qualifications, so as to be able in future to supplement their income with off-farm labour, diversifying the income source of a loss-making farm business.

In conclusion, with enhanced crofter qualifications and education of as well as successors, we expect that this system of small farms to be sustainable. Better education will allow flexible participation on the job market as well as swift reaction to price changes for farm and other commodities.

## REFERENCES

- Bergmann, H. (2007) *Diversification on Crofts and Small Farms to Ensure Farm Survival*, presentation to North West Highlands GeoPark Network Conference, Ullapool, 14-16 September.
- Bergmann, H. and Thomson, K. (2006) *Caithness and Sutherland - a Brief Introduction and Description of the Area*, TOP-MARD project working paper, [http://www.abdn.ac.uk/~pec208/index\\_files/Page442.htm](http://www.abdn.ac.uk/~pec208/index_files/Page442.htm), accessed 18.08.08.
- Bergmann, H. and Thomson, K. (2008) *Sustainable Regional Development in a Rural Remote Area (Caithness and Sutherland, Scotland) –Modelling Impacts and Obstacles*, paper presented to 5th Annual International Sustainable Development Conference.
- CIC (Committee of Inquiry on Crofting) (2008) *Final Report and Recommendations*. [www.croftinginquiry.org/Resource/Doc/0/0000405.pdf](http://www.croftinginquiry.org/Resource/Doc/0/0000405.pdf), accessed 15.05.09.
- DEFRA (Department of Environment, Food and Rural Affairs) (2009) *CAP Payments in 2008*. <http://www.cap-payments.defra.gov.uk/Search.aspx>.
- DAFS (Department of Agriculture for Scotland) (1954) *Report of the Commission of Enquiry into Crofting Conditions* (Taylor Enquiry). Edinburgh: HMSO.
- ESPN: [www.espon.eu/mmp/online/website/content/publications/98/1235/index\\_EN.html](http://www.espon.eu/mmp/online/website/content/publications/98/1235/index_EN.html)
- FAO (2002) *Socio-economic Analysis and Policy Implications of the Roles of Agriculture in Developing Countries*. ROA Team Leaders Meeting: Analytical Framework - Roles of Agriculture Project. Rome: FAO. [www.fao.org/es/esa/roa/empirical\\_design\\_en.asp](http://www.fao.org/es/esa/roa/empirical_design_en.asp).
- OECD (Organisation of Economic Co-operation and Development) (2006) *The New Rural Paradigm: Policies and Governance*. Paris: OECD.
- Rowley, C., Tollison, R. and Tullock, G. (1988) *The Political Economy of Rent-Seeking*, Kluwer.
- Van der Ploeg, J. and Roep, D. (2003) Multifunctionality and rural development: the actual situation in Europe Ch. 3 (pp. 37-53) in van Huylenbroek, G. and Durand, G. (eds). *Multifunctional Agriculture. A New Paradigm for European Agriculture and Rural Development*. Aldershot, UK: Ashgate,
- World Bank (2007) *World Development Report 2008: Agriculture for Development*. New York: World Bank.