



Crofting
in the 21st Century
A Study for SEERAD

Report on
Survey of Crofting Incomes
and
Responses to Agricultural Policy Changes

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Executive Summary

1. Data on the agricultural incomes of a sample of 42 crofts were obtained for 1998 and 1999, together with data on other sources of income of the crofting households at the time of the survey in 2000. This sample consisted of those croftholders willing to co-operate in the study, out of a total of 73 crofts, from which similar data were obtained in a previous study by Kinloch and Dalton, covering the years 1988 and 1989. Details of their crofting activities were collected, the reasons for changes in these over the 10 years were investigated, as well as their views on how their activities might change in future in response to alternative future policy scenarios for agriculture, and crofting in particular.
2. A random selection procedure was used in the original sample choice by Kinloch, but a regional stratification was included to ensure reasonable geographical representation, and also only active crofters with at least 20 sheep or equivalent were included. The latter may have created some bias towards younger crofters. Revisiting this sample has enabled the most accurate measurement of changes in activities and incomes over the 10 year period, ie within an identical group. However, the possible bias in age distribution has to be borne in mind. This may be of significance in relation to changes shown in the household composition of the crofts, but there is no reason to believe that the changes in activities and incomes revealed in this study are not representative of crofting as a whole.
3. The results clearly indicate some deterioration in the average income from agricultural activities on the crofts from what had already been a value of less than £1,000 per croft in 1988/89, though the precise value, at less than £100, could be argued to be unrepresentatively low because of the effects of one-off losses in breedingstock values when livestock prices dropped sharply in 1998. The deterioration in farming income was despite the average receipts of government subsidy having almost doubled over the 10 year period, an increase well in excess of general inflation.
4. There were great variations in the level of agricultural income, but in both years over 60 per cent had agricultural incomes between £2,500 and -£2,500. In 1998 over 50 per cent had negative incomes and in 1999 over 30 percent.
5. The agricultural income was shown to be a very minor part of the total income of the croftholder and spouse, which was recorded as averaging £15,287, which is significantly below the level of national average earnings for a couple.

6. The average results for the sample did not indicate dramatic changes in the agricultural activities within the sample as a whole, though there was a fairly marked decline in the already small area devoted to crops, and some decline in average cattle numbers was balanced by increasing sheep numbers. Underlying the averages, however, more significant changes were occurring, with reductions in livestock on several crofts being balanced by significant increases on a few. Thus the more marginal areas for farming could be seeing significant reductions in agricultural activity, and both the reduction in activity there and increased concentration of livestock elsewhere are likely to have undesirable environmental consequences. The main factor influencing changing agricultural activities was indicated to be the prices received for agricultural products, but input prices and subsidies were also important.
7. The crofters indicated that most were likely to be considering reducing costs, simplifying, and extensifying to some degree, irrespective of the future policy scenario. They indicated considerable reluctance to consider giving up agricultural activity on the croft, but most indicated they could not sustain it if it was actually costing money on a continuing basis. Most could not envisage circumstances in which they would actually relinquish the croft. They generally indicated willingness to adjust their crofting activities to the aims of specific policies, given appropriate incentives.
8. The results of the survey, the continuing low level of livestock prices since 1999, and the projected impact of the change in LFA payments over the next two years, suggest that the reality of negative income from farming activities is likely to become increasingly apparent to many crofters and that a much more significant reduction in agricultural activity may well be seen across a much wider area of the Highlands and Islands.
9. This prospect raises important issues as to the effects which this may have on the environment, tourism and the general economies of fragile peripheral areas in the Highlands and Islands, and it calls for a clearer view of the specific objectives of policy in relation to crofting agriculture. As the net income from agriculture on crofts is indicated to be significantly negative if the subsidy element is discounted, and the contribution to the food requirements of the country is relatively insignificant, it throws particular emphasis on the development of the environmental and general rural development aspects, which are being given increasing consideration in policy formation at present.

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1 Introduction

Crofting is a form of land tenure historically based in the Highlands of Scotland and supported by a legal framework, with the Crofters Commission as a body responsible for management of the system. An essential aim of this system is to maintain the population and social cohesion in the peripheral areas of the Highlands. Crofting is often depicted as a model of pluriactivity, which is seen as a contributor to the survival of rural communities. However, the basically conservative aims of the system often tend to run counter to strong social and economic trends, in particular the need for ever increasing scale to achieve economy in farming, business and provision of services.

In 1999 the trend in agricultural policy towards decoupling financial support from food production and redirecting some of the support towards environmental and broader rural aims, as put forward in Agenda 2000 (MAFF,1999) was seen to have potentially significant effects on the way in which crofting develops in future. In addition, it was noted that it was around 10 years since a significant study of crofting incomes was carried out (Kinloch and Dalton, 1989, 1990). It was therefore considered appropriate to review the current situation in crofting, including the trends in income and mix of activities, both agricultural and non-agricultural, as well as (a) to analyse how crofting may be affected by and respond to current changes in agricultural policy; and (b) to investigate the way it has evolved and is regarded in communities experiencing differing economic and demographic trends, i.e. areas showing population growth and others with population decline. It was further noted that the topic is particularly pertinent at present, as it has links with legislation on land reform under consideration by the Scottish Executive and Parliament. Thus the project titled “Crofting in the 21st Century. An analysis of its socio-economic role” was instigated with SEERAD funding, initially in 2000/2001 as non-commissioned research, but adopted as a commissioned research project in 2001/2002.

This report provides an initial analysis of the results obtained in a survey of crofting incomes carried out in 2000/2001, and also a survey of responses to agricultural policy changes by the same sample of crofters.

1.1 The survey methodology and the sample obtained

Because the prime objective of the survey of crofting incomes was to identify trends, it was decided to repeat as far as possible the crofting incomes studies carried out by Kinloch and

Dalton covering the years 1988 and 1989 (carried out in 1989 and 1990), and to seek to obtain data for 1998 and 1999, to show the changes which had occurred over the 10 year period.

Seventy-three crofts were identified as having provided data in the previous incomes studies, either for 1988 or 1989, or both, and these were taken as the target population for this survey. Checks were made through telephone directories to confirm if the croft holder was still either the same as in the previous survey, or of the same family name, and for those where that was not confirmed, the name of the current croft holder was sought from the register of the Crofters Commission. An introductory letter was sent out to the croft holders informing them of the aims of the study and indicating that the researchers would be contacting them by telephone to explain further what was involved, to seek their co-operation in the study, and to arrange a visit to collect the data.

Of the 73 crofters targeted, co-operation was gained from 43 and useable income data obtained from 42, although in two cases the income data was only available for one of the target years. There were a small number of the croft holders who could not be contacted because they did not reside at the croft address, and/or no telephone number could be identified for them, others who were contacted decided they were unable or unwilling to give the time or data required. However, the response rate is good, in view of the demanding and personal nature of the survey, and a sample of over 40 is sufficient to give a reliable indication of income trends in the crofting sector¹.

The original sample of Kinloch and Dalton was derived by a random sampling procedure, but was restricted to active crofters with a minimum of 20 ewes, or the equivalent in other livestock. Also the selection was stratified by 9 regions to reflect, as far as possible the distribution of crofting activity, except that Argyll was specifically excluded. The sample obtained in this study is shown in Table 1. A good spread of representation across the crofting areas has been maintained, though the representation from Lewis and Harris is not as great as would have been desired as an important crofting area.

¹ *Measures of potential statistical error associated with the estimates of income change are provided in Appendix 1.*

Table 1 Geographical Distribution of the Sample.

| District | No. Providing Income Data | No. Providing Change Data |
|---------------------|---------------------------|---------------------------|
| Shetland | 5 | 5 |
| Orkney | 6 | 6 |
| Lewis & Harris | 3 | 4 |
| Other Western Isles | 8 | 8 |
| Wester Ross | 3 | 3 |
| Sutherland | 5 | 5 |
| Skye & Lochalsh | 7 | 7 |
| Lochaber | 4 | 4 |
| Inverness | 1 | 1 |
| TOTAL | 42 | 43 |

1.2 Data collection and processing

The crofting incomes data was collected by personal visit. Formal accounts were used as the primary source wherever available, together with the records kept by the crofter of financial transactions and livestock numbers. The accounts data was attributed to the calendar year to which it most nearly related. The agricultural data was collected in a format geared to following essentially the same procedures for calculating profit as are used in the Farm Accounts Scheme survey carried out for SEERAD by SAC. The questionnaire used is reproduced in Appendix 1.

The assessment of reasons for change over the last 10 years and likely changes in future was made using a questionnaire which is presented in Appendix 2. This sought to assess the likely response of the crofters to a series of alternative policy scenarios. To give the crofters time to think about the ideas raised in it, this questionnaire was sent to them in advance of the visit. Some of the crofters completed the questionnaire themselves in advance of the visit, but in most cases it was completed on the visit in discussion with the visiting researcher.

For calculating the farming output realistic valuations of livestock were estimated at the start and end of each of the years covered, based on the general level of prices in the area at the time, as indicated by local SAC advisers, with adaptation to specific circumstances on individual crofts, such as age of flock/herd and breed. In calculating the farming costs, where costs of fuel, electricity, insurance, repairs and depreciation were charged relating to the croft

house and any vehicle used also for private purposes, a share of such costs was deducted for the private use. In calculating depreciation, a 20 per cent depreciation rate was applied to machinery and 10 per cent for buildings, but an adjustment was applied, based on the indices of machinery prices and building costs used in the Farm Accounts Scheme, in order to allow for the effects of inflation on these costs.

In addition to calculating the net profit/loss from the agricultural activities on the croft, a further calculation was made to derive a measure termed the Family Labour Income. This is an estimate of the amount of income which the crofting household would actually have lost if the agricultural activity had not been engaged in. This takes account of the fact that some of the costs, for which a share is, quite correctly, charged in calculating the farming profit, would actually be borne even if the farming ceased – eg house insurance, road tax, insurance and depreciation for a vehicle which is also used for private purposes. But on the other hand it also takes account of the interest which could be earned on the crofter's capital which would be released by the sale of the farm machinery and livestock.

The income other than that from farming was recorded simply as that current at the time of collection in 2000, rather than seeking to identify specific amounts for the years 1998 and 1999. Thus the overall income to the crofting household has been assessed at the time of collection in 2000, with the agricultural part of that being estimated on the basis of the data for 1998 and 1999.

2 Analysis of status, demography and activity within the sample, in 2000 and 10 years earlier

2.1 Ages and activities of occupants and families

Data obtained in the incomes survey on the ages of those in the croftholder's household and the croftholder's length of residency on the croft are presented in Table 2, along with similar data collected for the same crofts in the previous surveys 10 years earlier.

Table 2 Crofting Household Composition and Length of Croft Residence.

| | 2000 Survey | | | | 1989/1990 Surveys | | | |
|--|-------------|------|----------------|------------|-------------------|------|----------------|------------|
| | Total | Mean | No. of Crofts* | % of Total | Total | Mean | No. of Crofts* | % of Total |
| Number of Working-Age Adults (16-65, excluding FT students) : | | | | | | | | |
| Male | 37 | 0.88 | 31 | 74% | 51 | 1.21 | 38 | 90% |
| Female | 36 | 0.86 | 31 | 74% | 33 | 0.79 | 30 | 71% |
| TOTAL | 73 | 1.74 | 37 | 88% | 84 | 2.00 | 39 | 93% |
| Number of Dependant Children & Full-time Students : | | | | | | | | |
| Over 16 | 3 | 0.07 | 3 | 7% | 8 | 0.19 | 7 | 17% |
| 12-16 | 5 | 0.12 | 5 | 12% | 13 | 0.31 | 9 | 21% |
| Under 12 | 6 | 0.14 | 4 | 10% | 10 | 0.24 | 7 | 17% |
| TOTAL | 15 | 0.36 | 10 | 24% | 31 | 0.74 | 19 | 45% |
| Number of Adults Over 65 : | | | | | | | | |
| Male | 12 | 0.29 | 12 | 29% | 8 | 0.19 | 8 | 19% |
| Female | 10 | 0.24 | 10 | 24% | 6 | 0.14 | 5 | 12% |
| TOTAL | 22 | 0.52 | 16 | 38% | 14 | 0.33 | 11 | 26% |
| GRAND TOTAL | 110 | 2.62 | 42 | 100% | 129 | 3.07 | 42 | 100% |
| Length of residency of the tenant/owner on the croft. Years** | 1273 | 30 | 42 | 100% | 932 | 22 | 42 | 100% |

* Number of crofts for which an entry was recorded for the specified characteristic

** Note. Where the croftholder was born on the croft, but moved away before returning as croftholder, only the current continuous period of residency was counted.

The numbers of working age adults and children in the households are shown to have decreased significantly over the period, while the numbers over the age of 65 had increased. Given that the original sample was specifically of 'active' crofters, this is not really surprising, and cannot be taken necessarily to represent the situation in crofting as a whole. Although there had been a change of croftholder in some cases, the majority were the same

croft holders as in the original surveys, as is reflected in the average length of residency being 30 years, 8 years more than in the study 10 years earlier.

Information is presented in Table 3 on the numbers of people engaged in agricultural activity on the croft, as well as in non-agricultural activities based at the croft and employment off the croft.

Table 3 Activities of the Crofting Household

| | 2000 Survey | | | | 1989/1990 Surveys | | | |
|---|-------------|------|----------------|------------|-------------------|------|----------------|------------|
| | Total | Mean | No. of Crofts* | % of Total | Total | Mean | No. of Crofts* | % of Total |
| Number of adults regularly participating in agricultural activity on the croft. | 84 | 2.00 | 39 | 93% | 77 | 1.83 | 42 | 100% |
| Number of children/students regularly participating in agricultural activity on the croft. | 8 | 0.19 | 6 | 14% | 9 | 0.21 | 7 | 17% |
| Number of adults engaged in non-agricultural activity based at the croft. | 25 | 0.60 | 13 | 31% | 10 | 0.24 | 8 | 19% |
| Number of adults in employment off the croft (incl. agriculture): | | | | | | | | |
| Regular fulltime | 32 | 0.76 | 22 | 52% | 41 | 0.98 | 34 | 81% |
| Regular part-time | 12 | 0.29 | 11 | 26% | 7 | 0.17 | 7 | 17% |
| Casual | 3 | 0.07 | 3 | 7% | 0 | 0.00 | 0 | 0% |
| TOTAL | 47 | 1.12 | 32 | 76% | 46 | 1.10 | 35 | 83% |

** Number of crofts for which an entry was recorded for the specified characteristic*

The numbers of adults regularly participating in agricultural activity on the crofts actually increased slightly, despite three of the crofts having no agricultural activity now. This reflected more active participation by crofters' wives than 10 years earlier. The number of children actively participating in the farming was almost similar to that indicated in the previous study, despite the lower total number of children on the crofts.

The number of adults engaged in non-agricultural activity based on the crofts had more than doubled from 10 years earlier, at 25 in total, or an average of 0.6 people per croft. Non-agricultural activities were found on 31 per cent of the crofts, 12 per cent more than in the previous study. The traditional non-agricultural activities historically associated with crofting did not feature significantly, with only single instances of weaving, knitting and

fishing. The activity found most frequently was the provision of facilities and services for tourism, which was found on 8 crofts, followed by craft work which was found on 3 crofts, other activities were fish farming, building and contract fencing.

The numbers in the crofting household in employment off the croft had increased marginally from 10 years earlier, but the number in full-time employment had decreased. This partly reflected the increased proportion of crofters in the sample who were over the statutory retiral age, and partly a reduction in the numbers of other family living on the croft but working elsewhere. The proportion of crofts on which at least one of the household was working off the croft had decreased somewhat, being 76 per cent, compared to 83 per cent 10 years earlier. The range of types of employment was very wide, with various types of council employment featuring most significantly, including 5 teachers. Jobs relating to tourism were again important. Other jobs included other farm work, employment at fish farms, distilleries, the MOD and a bank, as well as driving, secretarial, civil engineering, security, car mechanic, oil related, docker and seaman.

2.2 Area of crofts and tenant/ownership status

Table 4 shows that the total area farmed by the holders of the crofts in the sample had increased somewhat, from an average of 104 hectares to 116 hectares, due to increased use of other crofts and an increased share of common grazings.

The number of crofts in the sample which were owned had increased from 10 to 15, now representing 36 per cent of the sample. There had been some increase in the incidence of letting out land within the sample, with 14 per cent of the crofters letting out some land on either a long or short-term basis.

Table 4 Croft Area and Form of Landholding

| | 2000 Survey | | | | 1990 Survey | | | |
|--|-------------|-------|----------------|------------|-------------|------|----------------|------------|
| | Total | Mean | No. of Crofts* | % of Total | Total | Mean | No. of Crofts* | % of Total |
| Total Area Farmed (and/or let out). Hectares | 4878 | 116 | 42 | 100% | 4440 | 106 | 42 | 100% |
| Of which: | | | | | | | | |
| Home Croft | 1181 | 28 | 42 | 100% | 1134 | 27 | 42 | 100% |
| Other Crofts | 233 | 6 | 13 | 31% | 86 | 2 | 7 | 17% |
| Share of Common Grazing | 3481 | 83 | 33 | 79% | 3113 | 74 | 31 | 74% |
| Other (land not registered with Crofter's Commission) | 0 | 0 | 0 | 0% | 10 | 0 | 1 | 2% |
| Of which: (excl share of common grazing) | | | | | | | | |
| Owned | 375 | 9 | 15 | 36% | 155 | 4 | 10 | 24% |
| Rented under Full Tenancy | 953 | 23 | 28 | 67% | 1048 | 25 | 35 | 83% |
| Rented Seasonally | 45 | 1 | 7 | 17% | 124 | 3 | 4 | 10% |
| Of which: Let Out - | | | | | | | | |
| Long Term (over 10 months) | 530 | 12.61 | 3 | 7% | 0 | 0 | 0 | 0% |
| Short Term | 34 | 1 | 3 | 7% | 5 | 0 | 1 | 2% |

* Number of crofts for which an entry was recorded for the specified characteristic

2.3 Agricultural activity

Data on the average cropping and stocking, presented in Table 5, show that there had been little change in the total area actively farmed compared with 10 years earlier, despite three of the crofts no longer being actively used for agriculture by the croft holders, the reduction in farming activity by some being counterbalanced by expansion in area used by others.

The area devoted to crop production declined over the 10 year period, from what was already a very minor level, with only 24 per cent of the crofts now having any crops and the average area per croft over the whole sample amounting to little more than half a hectare. The area of temporary grass declined along with the cropping. There had been an increase of 4 hectares in the average area of permanent grass/improved grazing, with a similar decline in the area of unimproved rough grazing on the individual holding. Despite the increase in the overall area of common grazing associated with these crofts noted above, with some of the area being let out or not used, there was little change in the area of common grazing actually utilised

compared with 10 years earlier. A new development was the planting of 53 hectares of woodland on the crofts in the sample and their associated common grazings.

Table 5 Agricultural Use of the Croft

| | 2000 Survey | | | | 1990 Survey | | | |
|--|-------------|------|----------------|------------|-------------|------|----------------|------------|
| | Total | Mean | No. of Crofts* | % of Total | Total | Mean | No. of Crofts* | % of Total |
| Area Actively Farmed: TOTAL Hectares | 4305 | 103 | 39 | 93% | 4437 | 106 | 42 | 100% |
| Crops | 27 | 1 | 10 | 24% | 36 | 1 | 19 | 45% |
| Temporary Grass | 95 | 2 | 8 | 19% | 107 | 3 | 12 | 29% |
| Permanent Grass/Improved Grazing | 741 | 18 | 34 | 81% | 567 | 14 | 33 | 79% |
| Rough Grazing (individual) | 343 | 8 | 18 | 43% | 621 | 15 | 21 | 50% |
| Rough Grazing (share of com. grazing) | 3045 | 73 | 29 | 69% | 3106 | 74 | 30 | 71% |
| Woodland | 53 | 1 | 3 | 7% | 0 | 0 | 0 | 0% |
| Livestock Numbers: (av. 1998/99 & 1988/89)** | | | | | | | | |
| Cows | 176 | 4 | 12 | 29% | 200 | 5 | 27 | 64% |
| Other Cattle | 229 | 5 | 13 | 31% | 211 | 5 | 31 | 74% |
| Ewes | 4462 | 106 | 34 | 81% | 3806 | 91 | 34 | 81% |
| Other Sheep | 3129 | 75 | 34 | 81% | 2245 | 53 | 34 | 81% |
| Poultry | 79 | 2 | 4 | 10% | 0 | 0 | 0 | 0% |
| Other | 0 | 0 | 0 | 0% | 12 | 0 | 2 | 5% |
| Number of Suckler Cow Premium Quotas | 159 | 4 | 12 | 29% | | | | |
| Number of Sheep Ann. Premium Quotas | 4327 | 103 | 31 | 74% | | | | |

* Number of crofts for which an entry was recorded for the specified characteristic.

** Averaged over the whole year.

The proportion of crofts with cattle declined severely over the 10 years from 74 per cent to 31 percent, but the average number of cows per croft over the whole sample only fell from 5 to 4, and the average number of other cattle remained at 5. Thus, while the number of crofts with cattle was much lower, the cattle enterprise was larger on those crofts with cattle. On the other hand the proportion of crofters owning sheep was unchanged at 81 per cent and the numbers increased by more than 25 per cent to average 106 ewes and 75 other sheep per croft in the sample. Other livestock were negligible.

2.4 Involvement in schemes for environmental improvement

The crofters were asked to indicate any involvement they had with schemes which are directed towards conservation or improvement of the environment and the results are presented in Table 6.

Table 6 Involvement in Schemes for Environmental Improvement

| | No. of Crofts* | % of Total |
|--|-----------------------|-------------------|
| Environmentally Sensitive Areas: | | |
| Croft within designated area | 7 | 17% |
| Contracted under ESA agreement | 7 | 17% |
| In process of application to join an ESA agreement | 1 | 2% |
| Countryside Premium Scheme: | | |
| Contracted under CPS agreement | 0 | 0% |
| Application for CPS agreement not successful | 1 | 2% |
| Organic Farming: | | |
| Registered as an organic producer | 0 | 0% |
| In process of conversion to organic status | 0 | 0% |
| Woodland: Receiving Farm Woodland Premium Scheme Payments - | | |
| As individual | 2 | 5% |
| On common grazing | 4 | 10% |
| Other Schemes: | | |
| Sites of Special Scientific Interest & Special Areas of Conservation | 9 | 21% |

Seven of the crofters who were within designated Environmentally Sensitive Areas had contracted agreements under that scheme and one of these was in process of applying for a further agreement. Six of the crofters were receiving payments under the Farm Woodland Premium Scheme, two for individual tree plantings and 4 for plantings on common grazings. Nine of the crofts had Sites of Special Scientific Interest on their land.

It may be noted, however, that none of the crofters had contracted agreements to engage in environmentally friendly practices under the Countryside Premium Scheme (Scotland), though one had been unsuccessful in an application to join the scheme, nor had any entered the Organic Aid Scheme (Scotland). The reasons for this were not specifically investigated in the study, but anecdotal evidence indicates that it has been difficult for small crofts to achieve the required threshold level on the scoring system for entry to the CPS, and the administrative costs for organic registration can also be a problem. Examples of success from such schemes are required to encourage others.

3 Analysis of income levels and sources within the sample, in 1998/99 and 10 years earlier

3.1 Agricultural income

In Table 7 details are given of the agricultural output, costs, profit and family labour income for the crofts providing this data in 1988, 1989, 1998, and 1999.

The average farming output was around £1000 higher in both 1998 and 1999 than 10 years earlier, but was almost £1000 lower in 1998 than 1999. This was entirely due to a sharp fall in sheep prices in 1998, particularly in the outer islands, which was reflected in a drop in closing valuations over those at the start². Sheep provided the largest output, amounting to 55 per cent of the total in 1999.

Variable costs were significantly higher in 1998/99 than 10 years before. The main increase was in expenditure on feed, which was some 85 per cent higher than 10 years before. This is due to a heavier dependence on purchased feed and less production of home grown cereals and conserved forage, which is reflected in a reduction in total expenditure on seed, fertilizer and other crop expenses.

Total fixed costs were some 40 per cent higher in 1998/99 than 10 years earlier. Most of the individual cost elements contributed to this increase, except for rent, interest charges and hired labour, the last of these having been reduced to a negligible level.

The average net profit was at a low level of less than £1,000 per croft in 1988 and 1989. With the fall in sheep values in 1998 there was an average net loss of almost £600 per croft, but in 1999 the average profit had returned to a level of just under £1000³. It may be noted that this meagre level of income was achieved despite receipt of almost five times that amount in subsidy payments, which almost doubled over the 10 years, an increase almost twice the general inflation rate. The average family labour income from farming, which estimates as far as possible the actual level of net financial gain from the farming activity, was around £100 less than the profit as normally calculated.

² *The effect of the drop in unit valuations of livestock in 1998 amounted to an average of -£1,756 per croft (in 1999 increases in unit values added £264 to the average output per croft).*

³ *Even if the changes in unit valuations of livestock were excluded, the average profit over the two years 1998/99 would be less than £1,000 per croft per annum.*

Table 7 Output, Costs & Income from Agriculture. All available results within sample for 1999, 1998, 1989, 1988.

| | 1999 | 1998 | 1989 | 1988 |
|---|-------------|-------------|-------------|-------------|
| Number of Crofts | 41 | 41 | 38 | 24 |
| Output | £ | £ | £ | £ |
| Crops & Forage | 474 | 437 | 255 | 61 |
| Cattle | 2080 | 2305 | 2211 | 1226 |
| Sheep | 4104 | 2869 | 2973 | 3590 |
| Other Output | 767 | 904 | 632 | 661 |
| TOTAL | 7425 | 6516 | 6071 | 5538 |
| Variable Costs | | | | |
| Seed | 65 | 89 | 35 | 29 |
| Fertiliser | 390 | 449 | 588 | 377 |
| Sundry Crop | 18 | 22 | 110 | 215 |
| Purchased Feed | 1684 | 1689 | 907 | 909 |
| HG Cereals Fed | 51 | 86 | 143 | 56 |
| Sundry Livestock | 702 | 830 | 583 | 541 |
| Contractors | 207 | 154 | 32 | 30 |
| Casual Labour | 23 | 139 | 118 | 138 |
| TOTAL | 3139 | 3458 | 2515 | 2295 |
| Gross Margin | 4287 | 3058 | 3555 | 3243 |
| Fixed Costs | | | | |
| Fuel & Electricity | 588 | 516 | 353 | 320 |
| Machinery Repairs | 627 | 628 | 306 | 256 |
| Property Repairs | 265 | 355 | 176 | 201 |
| Hired Labour | 0 | 55 | 92 | 224 |
| Rent | 61 | 57 | 69 | 42 |
| Insurance | 157 | 143 | 91 | 66 |
| Miscellaneous | 536 | 494 | 350 | 302 |
| Interest Payments | 204 | 302 | 446 | 308 |
| Machinery Depreciation | 739 | 930 | 659 | 718 |
| Building Depreciation | 173 | 162 | 34 | 0 |
| TOTAL | 3350 | 3642 | 2575 | 2438 |
| Net Profit from Farming | 936 | -584 | 980 | 805 |
| (Nb. Total Subsidies Received) | 4697 | 4737 | 2533 | 2380 |
| Av. of Opening & Closing Valuations: | | | | |
| Crops & Stock | 5110 | 6267 | 7126 | 6290 |
| Machinery & Equipment (excl. priv. vehicle) | 2905 | 3930 | 3402 | 3289 |
| Interest @ 6% on Av. Valuations | 481 | 612 | 632 | 575 |
| Estimated. Rental Value of Owned Land | 23 | 28 | 30 | 4 |
| Vehicle & Property Costs incurred without Farming | 237 | 241 | 143 | 163 |
| Family Labour Income from Farming* | 874 | -682 | 907 | 698 |
| Highest | 9474 | 6495 | 7210 | 6771 |
| Lowest | -10342 | -10861 | -2348 | -2917 |
| % Positive | 63% | 37% | 55% | 71% |
| % Negative | 32% | 59% | 45% | 29% |

Note: Totals are derived as mean values from the individual results and may therefore differ slightly by rounding error from the sum of the mean values listed above them.

** Net Profit + (interest payments) – (interest@6% on valuations. of crops & stock, machinery & equipment) – (estimated. rental value of owned land) + (estimated costs incurred even if not farming).*

The levels of individual croft incomes from farming showed wide variation, ranging from £9,474 to a loss of £10,342 in 1999 and from £6495 to a loss of £10,861 in 1998. These ranges were much wider than in 1988 and 1989, with much greater losses being incurred in some cases. Also the proportion of the sample making negative incomes was very high in 1999, at 59 per cent, though reducing to 32 per cent in 1998.

Figure 1. Distribution of Farm Income Levels 1998 & 1999

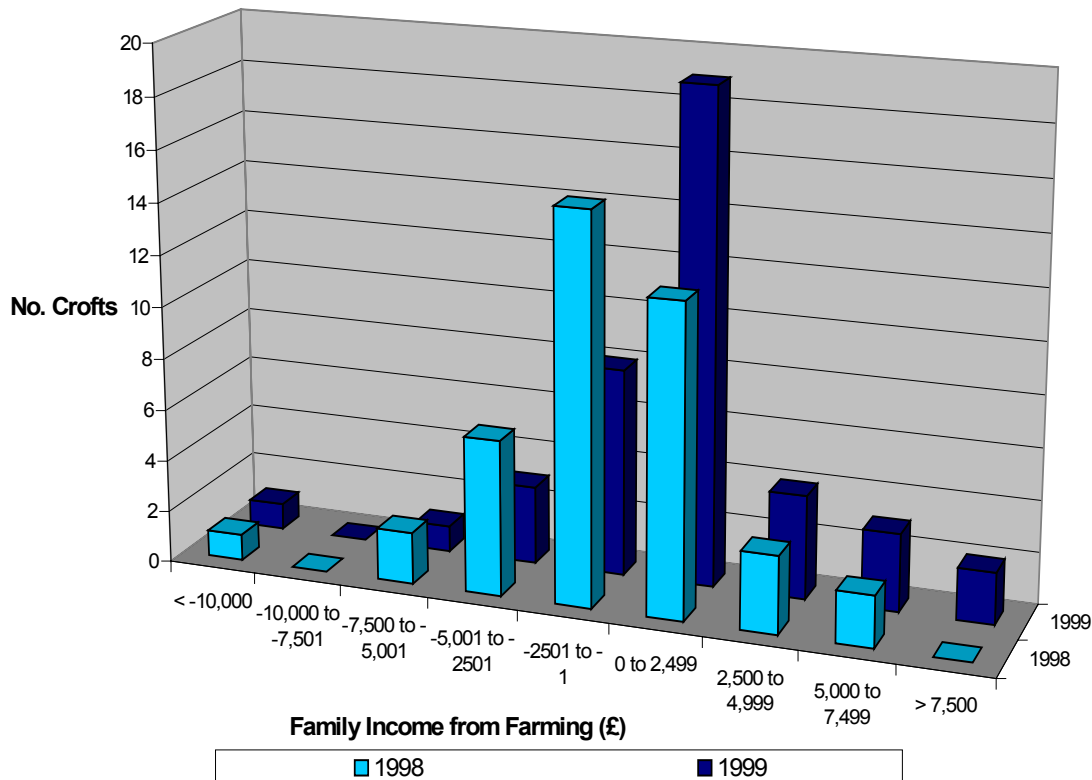


Figure 1 provides further analysis on the distribution of income levels earned from farming, showing that the highest levels of losses related to just one case. This croft business, with a negative income of over £10,000 in both 1998 and 1999, was the largest farming operation in the sample, with over 30 cows and over 550 ewes. More than £6,000 of the loss in 1998 arose from the fall in stock values in that year, and over £2,600 was the opportunity cost charged for interest which could have been earned on the crofter's capital invested in the livestock. In 1999 there was no further writing-down of stock values, but rather the loss was due in that year to lower sales receipts and unusually high expenditure on purchased feed that winter.

Figure 1 also shows, however, that the low average level of farming income is not just due to one or two exceptional cases making large losses. The majority of the crofters are shown to have been making very small incomes from their farming activities or else actually losing money, with over 60 per cent in both years having incomes in the range from -£2,500 to +£2,500.

In order to check that the situation portrayed in the above analysis was not being significantly affected by the changing composition of the sample from which results were obtained in the different years, the results for the identical sample of 19 crofts included in all four years have been analysed in Table 8 to compare the average situations in 1998/99 and 1988/89.

This analysis actually shows a fall of about £700 in the average profit in 1998/99 compared with 10 ten years earlier, which is in line with the full data presented in Table 7. The fall in family labour income from farming is indicated as being even greater, at £1000 for these crofts.

Table 8 Output, Costs & Income from Agriculture.
Identical sample mean results for 1998/99 & 1988/89.

| | Mean 1998/99 | Mean 1988/89 |
|---|-------------------------|-------------------------|
| Number of Crofts | 19 | 19 |
| Output | £ | £ |
| Crops & Forage | 26 | 85 |
| Cattle | 1279 | 1324 |
| Sheep | 4339 | 3493 |
| Other Output | 894 | 803 |
| TOTAL | 6538 | 5705 |
| Variable Costs | | |
| Seed | 28 | 33 |
| Fertiliser | 238 | 544 |
| Sundry Crop | 8 | 153 |
| Purchased Feed | 1987 | 945 |
| HG Cereals Fed | 0 | 64 |
| Sundry Livestock | 861 | 556 |
| Contractors | 189 | 38 |
| Casual Labour | 47 | 180 |
| TOTAL | 3358 | 2512 |
| Gross Margin | 3180 | 3193 |
| Fixed Costs | | |
| Fuel & Electricity | 636 | 356 |
| Machinery Repairs | 415 | 272 |
| Property Repairs | 222 | 116 |
| Hired Labour | 0 | 119 |
| Rent | 59 | 39 |
| Insurance | 114 | 70 |
| Miscellaneous | 394 | 304 |
| Interest Payments | 151 | 409 |
| Machinery Depreciation | 904 | 711 |
| Building Depreciation | 210 | 0 |
| TOTAL | 3105 | 2396 |
| Net Profit from Farming | 75 | 796 |
| (Nb. Total Subsidies Received) | 5274 | 2698 |
| Av. of Opening & Closing Valuations: | | |
| Crops & Stock | 5664 | 6268 |
| Machinery & Equipment (excl. priv. vehicle) | 3834 | 3244 |
| Interest @ 6% on Av. Valuations | 570 | 571 |
| Estimated. Rental Value of Owned Land | 16 | 4 |
| Vehicle & Property Costs incurred without Farming | 120 | 136 |
| Family Labour Income from Farming* | -240 | 766 |

Note: Totals are derived as mean values from the individual results and may therefore differ slightly by rounding error from the sum of the mean values listed above them.

** Net Profit + (interest payments) – (interest@6% on valuations. of crops & stock, machinery & equipment) – (estimated. rental value of owned land) + (estimated costs incurred even if not farming).*

In Table 9 the data on hours of unpaid work by the crofter and his/her family are summarised, indicating that average hours of farm work by the crofter was slightly less than 10 years earlier, at 924 hours, but that the hours worked by the crofter's spouse and other family members had increased to a total of around 480 hours on average.

Table 9 Family Labour Input and Net Income per Hour

| | Mean 1998/99 | No. of Cases* | % of Total No. | Mean 1988/89 | No. of Cases* | % of Total No. |
|--|-----------------|------------------|----------------------|-----------------|------------------|----------------------|
| Unpaid Family Labour (Hours) | | | | | | |
| Croft holder | 924 | 37 | 88% | 975 | 42 | 100% |
| Spouse | 244 | 25 | 60% | 174 | 21 | 50% |
| Other | 239 | 21 | 50% | 69 | 13 | 31% |
| TOTAL | 1407 | 42 | 100% | 1218 | 42 | 100% |
| Net Income per hr of farm family labour (£) | | | | | | |
| Only cases with income data for both years | 0.14 | 38 | 90% | 0.62 | 20 | 48% |
| Highest | 4.89 | | | 4.38 | | |
| Lowest | -3.58 | | | -3.51 | | |
| % Positive | 53% | | | 70% | | |
| % Negative | 45% | | | 30% | | |
| Incl. cases with income data for 1 year only | 0.11 | 40 | 95% | 0.68 | 42 | 100% |
| Change in Net Income per hour of Family Labour 1988/89 -1998/99 (£) | | | | | | |
| Only cases with income data for both years | -0.65 | 19 | 45% | | | |
| Incl. cases with income data for 1 year only | -0.48 | 40 | 95% | | | |

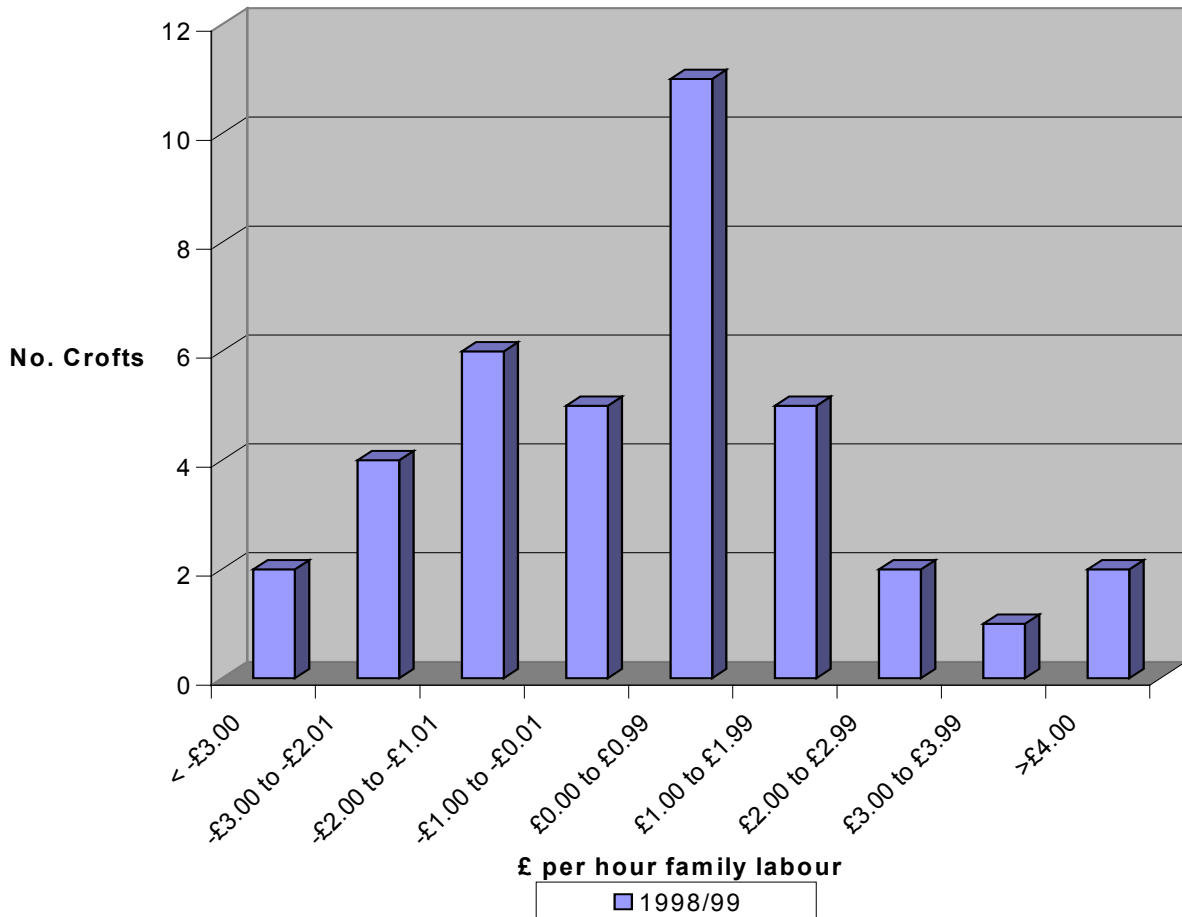
* Number of crofts for which an entry was recorded for the specified characteristic

Relating the average family labour income from farming over the two years of each survey to the hours of unpaid labour per annum gives a figure of net income per hour of farm family labour. Since the hours worked on the croft are obviously not something which can be estimated with precision, the specific value indicated as the average income per hour cannot be regarded as an absolutely precise and reliable result. However, the change indicated between 1988/89 and 1998/99 is such that it is clear that there has been a marked drop in the average income from croft work, from what was already a very low level, at some 60-70p per hour, to something under 20p per hour.

In Figure 2 the distribution within the sample of the values of family labour income per hour from farming is illustrated. This shows that 45 per cent had negative incomes from farming,

a further 42 per cent earned less than £2 per hour of time spent on farm work, and just three out of the 38 crofts generated incomes of over £3 per hour worked.

Figure 2. Distribution of Farm Income per Hour 1998/99



3.2 Other income and total income

As far as possible data was sought on the income obtained by the crofting household from sources other than farming at the time of the survey in 2000. This data is presented in Table 10 and is combined with the farm income data for 1998/99 to give an indication of the total income available to the crofter and his/her spouse, and to the whole household. Comparison is also provided with similar data obtained in the previous study carried out in 1989 and 1990. While the researchers sought to obtain as full information as possible, and the crofters were generally very open and frank, there may well be some further income from savings and investments which were not identified.

Table 10 Non-Farming Income and Total Income

| | Mean 2000 Survey £ | No. of Cases* | % of Total No. | Mean 1989/90 Surveys £ | No. of Cases* | % of Total No. |
|---|-----------------------------|------------------|----------------------|---------------------------------|------------------|----------------------|
| Av. Family Labour Income from Farming (1998/99 and 1988/89) | | | | | | |
| Only cases with data for both years | 148 | 40 | 95% | 743 | 20 | 48% |
| Including cases with data for 1 year only | 46 | 42 | 100% | 866 | 42 | 100% |
| Other Croft Income Based on Croft | | | | | | |
| Croftholder | 1595 | 12 | 29% | 530 | 3 | 7% |
| Spouse | 774 | 11 | 26% | 269 | 6 | 14% |
| Other | 5 | 1 | 2% | 0 | 0 | 0% |
| TOTAL | 2405 | 41 | 98% | 799 | 42 | 100% |
| Income from Employment outwith the croft | | | | | | |
| Croftholder | 6679 | 21 | 50% | 5505 | 24 | 57% |
| Spouse | 2330 | 12 | 29% | 1171 | 9 | 21% |
| Other | 2597 | 6 | 14% | 1467 | 5 | 12% |
| TOTAL | 11677 | 34 | 81% | 8561 | 32 | 76% |
| Unearned Income | | | | | | |
| Croftholder | 3296 | 22 | 52% | 1207 | 15 | 36% |
| Spouse | 369 | 5 | 12% | 35 | 1 | 2% |
| Other | 859 | 6 | 14% | 420 | 5 | 12% |
| TOTAL | 4523 | 42 | 100% | 1691 | 41 | 98% |
| Total Income of Croft Residents** | 17432 | 34 | 81% | 11920 | 31 | 74% |
| Total Income per Adult Croft Resident** | 8475 | 34 | 81% | 5806 | 31 | 74% |
| Total Income of Croftholder & Spouse** | 15288 | 41 | 98% | 9582 | 42 | 100% |
| Maximum | 47792 | | | 22375 | | |
| Minimum | -6602 | | | 212 | | |

Note: Each mean value is derived from all the available individual results. Because of differing numbers of results under the different headings, the totals at the foot of the table will not exactly match the sum of the items above.

** Number of crofts for which an entry was recorded for the specified data.*

*** Including cases with farm income data for one year only.*

In some cases data was not provided for some specific items, most commonly the earnings of a spouse or other family member. In the table the number of cases for which data was recorded is indicated. For the individual elements under any heading the number of positive entries is indicated (eg 12 croftholders obtaining income from non-agricultural activities based on the croft). However, the mean income shown for each element relates to the whole sample (ie the total has been divided by the total number for which data was provided,

whether positive or zero) and the number of cases shown against the total is also the number of cases contributing data to that result, whether positive or zero (eg 41 crofters provided complete data on other croft income based on the croft). The total numbers of crofts having income under each heading are thus not shown in the table, but were as follows (including those not providing data of the amount of that income):

| | 2000 Survey | 1989/90 Surveys |
|---|--------------------|----------------------------|
| Other Croft Income Based on Croft | 17 | 8 |
| Income from Employment outwith the croft | 32 | 33 |
| Unearned Income | 26 | 19 |

This shows that the number of crofts on which non-agricultural activities based on the croft are featuring has more than doubled over the 10 years between the surveys, though the 17 crofts still only amount to 40 per cent of the total sample⁴. The number of crofts with one or more family members in employment off the croft has shown no significant change, still amounting to over 75 per cent of the total. The number of crofts with family members receiving unearned income increased somewhat, reflecting the higher numbers over retirement age.

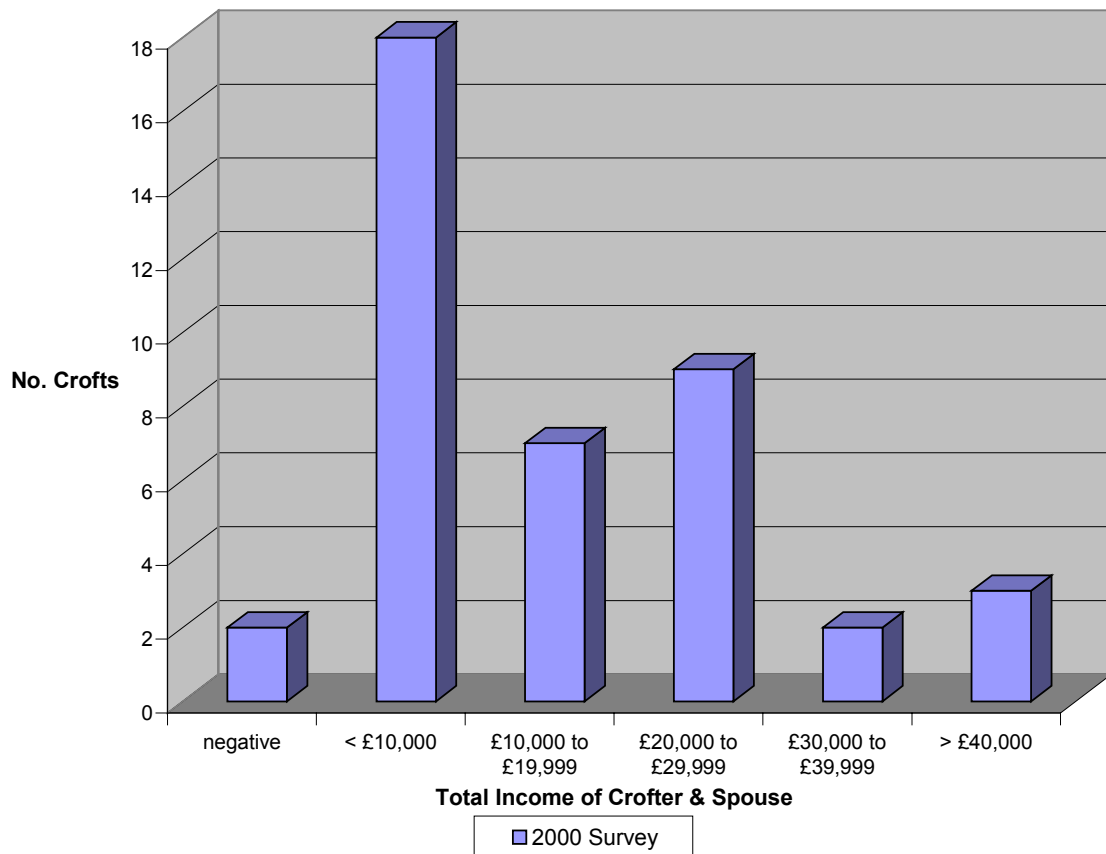
The mean values of the different categories of income shown in Table 10 reveal that on average the agricultural income is a very minor part of the total income of croft households – less than £200 in 1998/99. Although only 40 per cent of the crofts had non-agricultural income-earning activities based on the croft, the average income from these across the whole sample, at £2,405, was significantly more than that from agriculture. By far the largest source of income was employment off the croft, both for the croft holder alone, at £6,679, and for the whole household, at £11,677. Second in importance on average was unearned income, at £4,523 per household.

The average income levels of the crofters in the survey was quite low, the total income of crofter and spouse being £15,288 in this survey. There was considerable variation in this measure, from a maximum of £47,792 to a minimum of -£6,606. The distribution of this

⁴ Note. Table 3 indicated only 13 crofts on which non-agricultural activities were indicated. That excluded some crofts which obtain income from letting a house on the croft on a long term basis.

measure is illustrated in Figure 3, revealing that the total income was only negative in two instances (and it may be noted that one of these related to a case where there was a large loss for agricultural income because the data only related to the first year of ownership, in which the new croftholder was developing the croft and the sheep flock had not reached the stage at which any sales were made). However, in almost half the sample the total income of the croftholder and spouse was recorded as less than £10,000. Almost 40 per cent of the sample had a total income for the crofter and spouse in the range of £10,000 to £30,000, while in just 7 per cent of the sample it was over £40,000.

Figure 3. Distribution of Crofter & Spouse Income in 2000 Survey



4 Analysis of details of changes in activities during the 1990s and perceptions of factors influencing these

4.1 The changes

Crofters were asked about how the farming activities of their crofts had changed since they were last surveyed in 1989/90. Their responses, presented in Table 11, indicate some significant changes over the 1990's. These largely reflect the changes shown in tables 4, 5 and 6, though not exactly, as some of the crofts were not held by the same individuals as in the previous survey.

Seven crofters had increased the area of land owned, but one had reduced it. Nine had increased the area rented, but 4 reduced it and 2 ceased renting altogether (due to purchase of the croft). Three started planting out woodland.

Suckler cow and sheep quotas were reduced in a few cases, but more than half the crofters who had beef herds reduced them or sold them off completely, though most of the remainder increased the size of their beef herd, these being mainly in Orkney. Only a small proportion ceased sheep production and amongst the remainder it was evenly balanced between those expanding their sheep flocks, those reducing their flocks and those making no change. Declining sheep numbers were more common in the Wester Ross and Shetland areas, while increasing numbers featured more in Skye & Lochalsh and Sutherland.

Of the 10 crofters who previously engaged in bindered grain production, 3 had ceased production and 5 had reduced the area. On the other hand, of 14 crofts who had engaged in production of combined grain, 4 had increased production, but 2 had cut back and 2 had ceased grain production. Only 6 crofters made loose hay and half of those had cut back production. Baled hay production is somewhat more common, but of only 19 crofters who had engaged in this, 3 had ceased and 6 reduced their production. Seven crofters indicated having increased silage production, but of only 16 crofters who had engaged in that activity 2 had cut back on their production and one had stopped production. Some reduction in grass reseeding was indicated, and roots production was shown to have declined more significantly.

On balance there was some increase in use of contractors and machinery/labour sharing. A slight decline was indicated in the number of crofters seeing themselves as engaged full-time on the croft and also in the part-time labour input.

Table 11 Changes in Crofting over 1990s, as Indicated by Crofters

| | % Crofters indicating | | | | No. Crofters* |
|-----------------------------------|-----------------------|-----------|-----------|--------|---------------|
| | Unchanged | Increased | Decreased | Ceased | |
| Area owned | 72% | 24% | 3% | 0% | 29 |
| Area rented | 63% | 23% | 10% | 5% | 40 |
| Woodland | 88% | 12% | 0% | 0% | 26 |
| Suckler Cow Premium quota | 42% | 0% | 4% | 0% | 24 |
| Sheep Annual Premium quota | 51% | 0% | 3% | 0% | 37 |
| Dairy herd size | 100% | 0% | 0% | 0% | 1 |
| Beef herd size | 13% | 32% | 16% | 39% | 31 |
| Sheep flock size | 30% | 32% | 32% | 5% | 37 |
| Grain (binder) | 20% | 0% | 50% | 30% | 10 |
| Grain (combined) | 43% | 29% | 14% | 14% | 14 |
| Hay (loose) | 17% | 33% | 50% | 0% | 6 |
| Hay (baled) | 53% | 0% | 32% | 16% | 19 |
| Silage | 31% | 44% | 19% | 6% | 16 |
| Reseeding | 58% | 14% | 22% | 6% | 36 |
| Roots | 58% | 0% | 33% | 8% | 24 |
| Contractors | 58% | 26% | 16% | 0% | 31 |
| Machinery/labour sharing | 79% | 12% | 6% | 3% | 33 |
| Workers (full time) | 90% | 5% | 0% | 5% | 21 |
| Workers (casual) | 78% | 5% | 15% | 3% | 40 |
| Fertiliser | 51% | 17% | 27% | 5% | 41 |
| Concentrates | 54% | 24% | 17% | 5% | 41 |
| Heather burning | 70% | 7% | 11% | 11% | 27 |
| Weed control | 55% | 26% | 16% | 3% | 38 |
| Drainage maintenance | 71% | 17% | 10% | 2% | 42 |
| Diversification | 63% | 34% | 0% | 3% | 35 |
| Off-farm work | 63% | 21% | 12% | 5% | 43 |
| Agri-environment schemes | 55% | 38% | 3% | 3% | 29 |

* Total number of crofters responding - ie to whom the question was relevant.

There were some limited changes in key input use and management practices. Nearly a third (13) of the crofters that responded to the question on fertiliser use had either decreased or stopped using fertiliser, though 7 crofters had increased usage. Likewise, more crofters (6) had either ceased or reduced burning heather than had increased (2). Regarding concentrate

use and weed control, just over half of crofters were unchanged with as many crofters increasing usage as either decreasing or stopping altogether. Most crofters (30) continued to maintain field drains at similar levels to when last surveyed.

Finally, the data indicates that crofters have switched increasingly to non-agricultural activities during the 1990's to gain income. Over a third of crofters questioned, were making greater use of agri-environment schemes and diversification. The increased participation in agri-environment schemes was particularly marked in the Uists and Benbecula. While 9 of the 43 crofters surveyed indicated they were working more off their crofts, 7 crofters had either given up or reduced working off the croft. This may have been due to retirement.

4.2 The influencing factors

To investigate the reasons for the changes in the crofting businesses identified above, the crofters were asked why they had changed their activities. Crofters were shown a list of influencing factors and asked to weight the importance of each factor. The aggregate responses are shown in Table 12.

Table 12 Factors Influencing Business Changes over the 1990s, as Indicated by Crofters

| | % Crofters indicating | | | |
|--|-----------------------|--------------------|------------------|-----------|
| | Unimportant | Fairly Unimportant | Fairly Important | Important |
| Agricultural market prices | 35 | 2 | 19 | 44 |
| Agricultural input prices | 44 | 12 | 21 | 23 |
| Red tape | 51 | 7 | 16 | 26 |
| Direct payments (eg SAP, SCP) | 53 | 9 | 12 | 26 |
| Environmental payments (eg ESA) | 79 | 2 | 12 | 7 |
| Rural development schemes (eg ABIS) | 88 | 2 | 0 | 9 |
| New technology | 91 | 7 | 0 | 2 |
| Gaining new skills (training) | 95 | 2 | 0 | 2 |
| Nearing retirement | 72 | 7 | 2 | 19 |
| Limited interest from children | 81 | 9 | 2 | 7 |
| Discussions with other farmers | 91 | 2 | 7 | 0 |
| Other | 72 | 0 | 7 | 21 |

There was considerable variation between the crofters as to what they regarded as important factors influencing the changes made to their crofting activities. The level of agricultural

market prices (lamb, store cattle and cull prices) was shown to be the most important factor influencing business change, with 63 per cent of the crofters indicating this to have been “important” or “fairly important”. Agricultural input prices were the next most important factor, with 44 per cent indicating this to have been of some importance, though only slightly ahead of red tape, with 42 per cent.

Perhaps surprisingly, the influence of direct subsidy payments (eg, Sheep Annual Premium, Suckler Cow Premium, Hill Livestock Compensatory Allowances) was considered “unimportant” by 53% of crofters interviewed, compared to 26% believing them “important”. Of the remaining factors, only retirement and the miscellaneous (other) category were considered “important”, scoring 19% and 21% respectively. The increasing availability of agri-environmental payments was not important for the majority of the crofters, but 19 per cent did cite this as a factor having some influence on the changes in their crofting activities.

5 Expected future changes in activities under alternative policy scenarios

Government policy has a big effect on how land is used. Agenda 2000 (MAFF, 1999) indicated a clear intent by policy makers to rebalance rural policy away from production-related subsidies towards assistance for rural development and agri-environmental measures. Also member states have been given more freedom to design policy to meet their own particular needs. Given that these policies are still in the development stage, a key aim of this part of the crofting study was to gauge the crofters' views on how they might change their businesses under various policy scenarios.

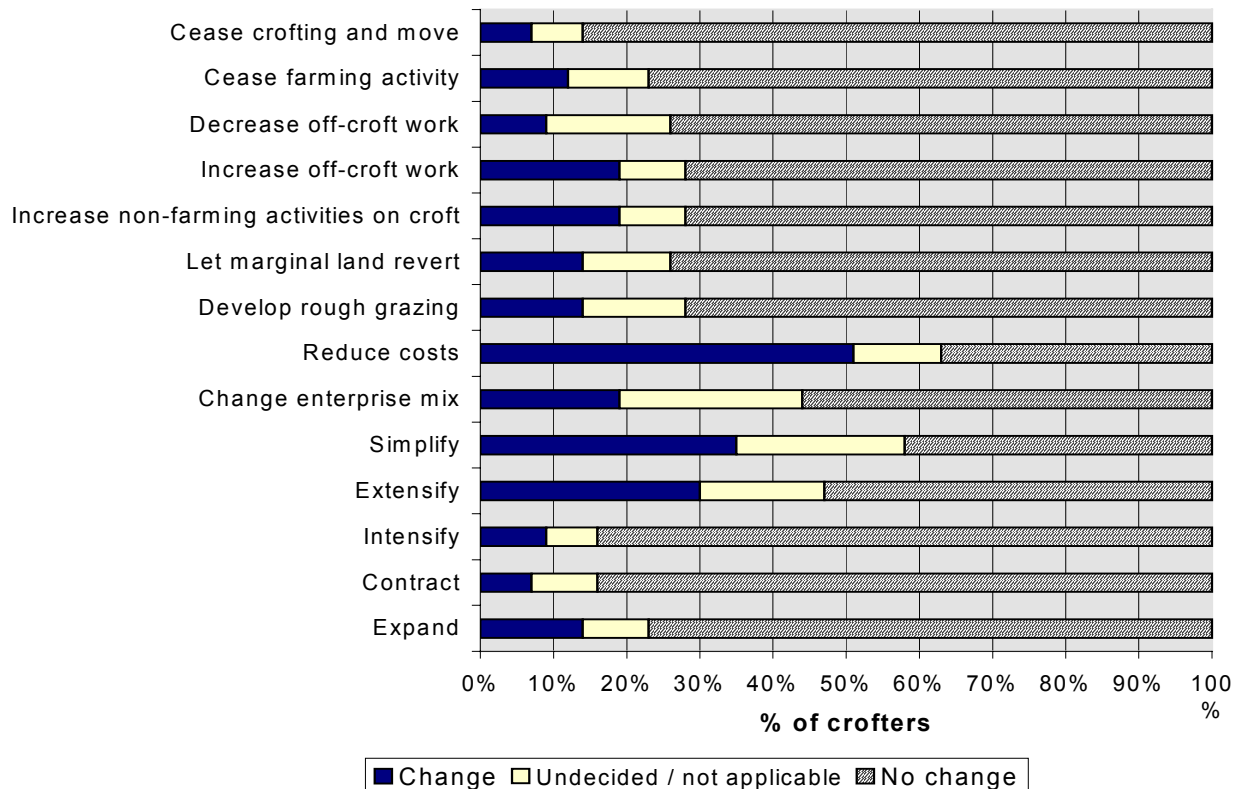
Five different notional scenarios were outlined to the crofter, each emphasising different policy options, and for each the crofter was then asked to indicate the likelihood of making any of a list of possible changes to his/her crofting activities in response to that scenario. The likelihood was recorded in terms of five possible responses but, for simplicity, in the following analysis the results have been converted to a three point scale of "Change", "Undecided" or "No change", derived as indicated below:

| | | | | | |
|------------|----------|----------|-----------|-----------|-------|
| Definitely | Probably | Possibly | Not sure | Unlikely | Never |
| Change | | | Undecided | No change | |

5.1 Scenario 1. Current support system and level

Figure 4 indicates that, if the recent rural policy were to continue, the trends noted above in the 1990's would also tend to continue. That is, if change at all, the changes would reflect a move toward simpler, more extensive and lower cost systems. Very few crofters see expansion or intensification as viable responses. Even Orkney crofters would not expect to develop their crofts further agriculturally. On the other hand, crofters in Lewis and Harris seem more likely to reduce agricultural production. Increasing time spent in work away from the croft, or in non-farming activities on the croft, were seen as more likely than expanding agricultural activity. More than 10 per cent thought they would cease farming activity on the croft, but far fewer would contemplate relinquishing the croft.

Figure 4. Crofters Anticipated Responses to Scenario 1



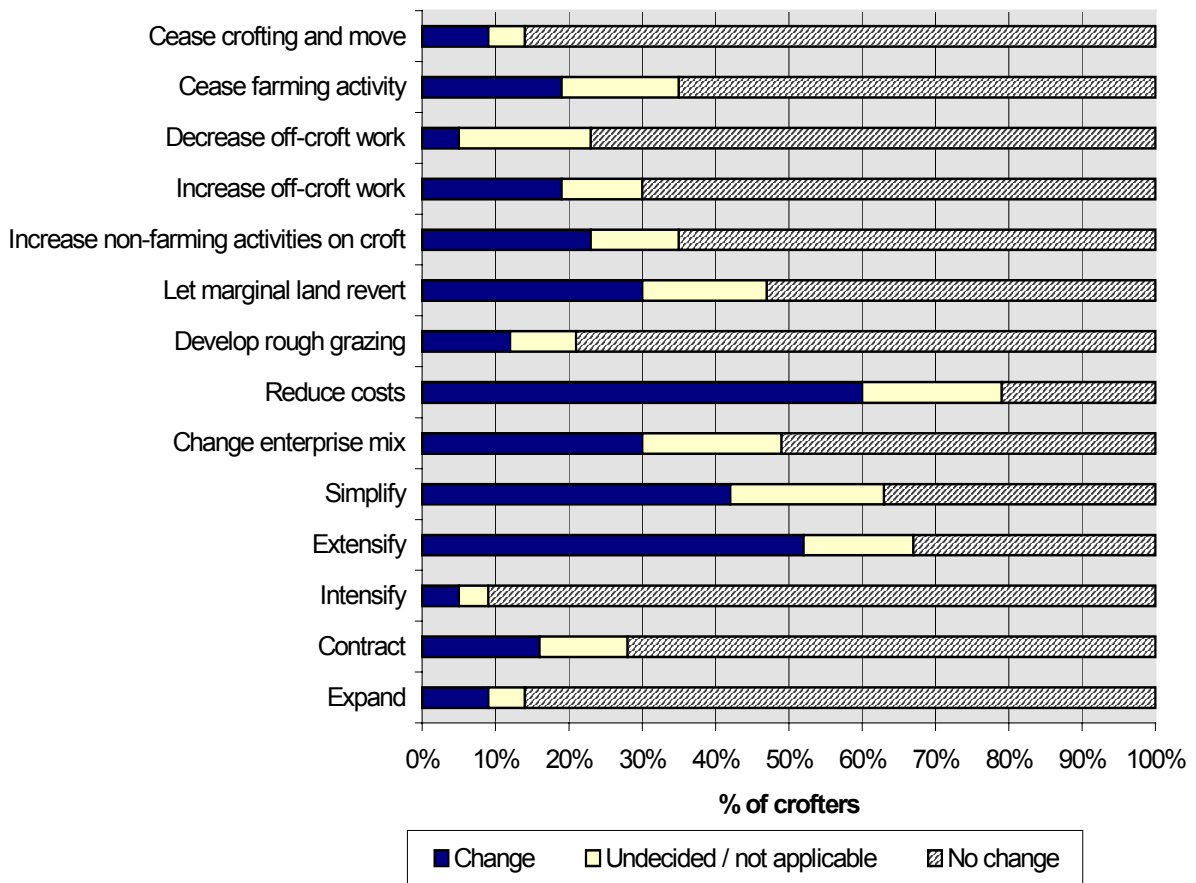
5.2 Scenario 2. Support payments fully decoupled

Under this scenario all current support payments based on specific activities are assumed to be removed, including those under agri-environmental and rural development schemes, as well as those under agricultural schemes. Instead crofters (who are actively farming the croft) would receive a single decoupled payment with “no strings attached”, equivalent to the current level of support.

Figure 5 shows that agricultural production would probably fall further under this scenario. Crofters indicated that they would be more likely to contract their area farmed and also extensify. They would also change the enterprise mix to simplify agricultural operations and cut costs. Significantly, more marginal land would be allowed to revert to rough grazing. Under this scenario a similar proportion of crofters would significantly change their work commitments away from the croft as under scenario 1, and rather more would increase non-farming activities on the croft. The proportions of crofters who would probably give up

farming their crofts, or even relinquish their crofts, are slightly larger than under the current system.

Figure 5. Crofters' Anticipated Responses to Scenario 2

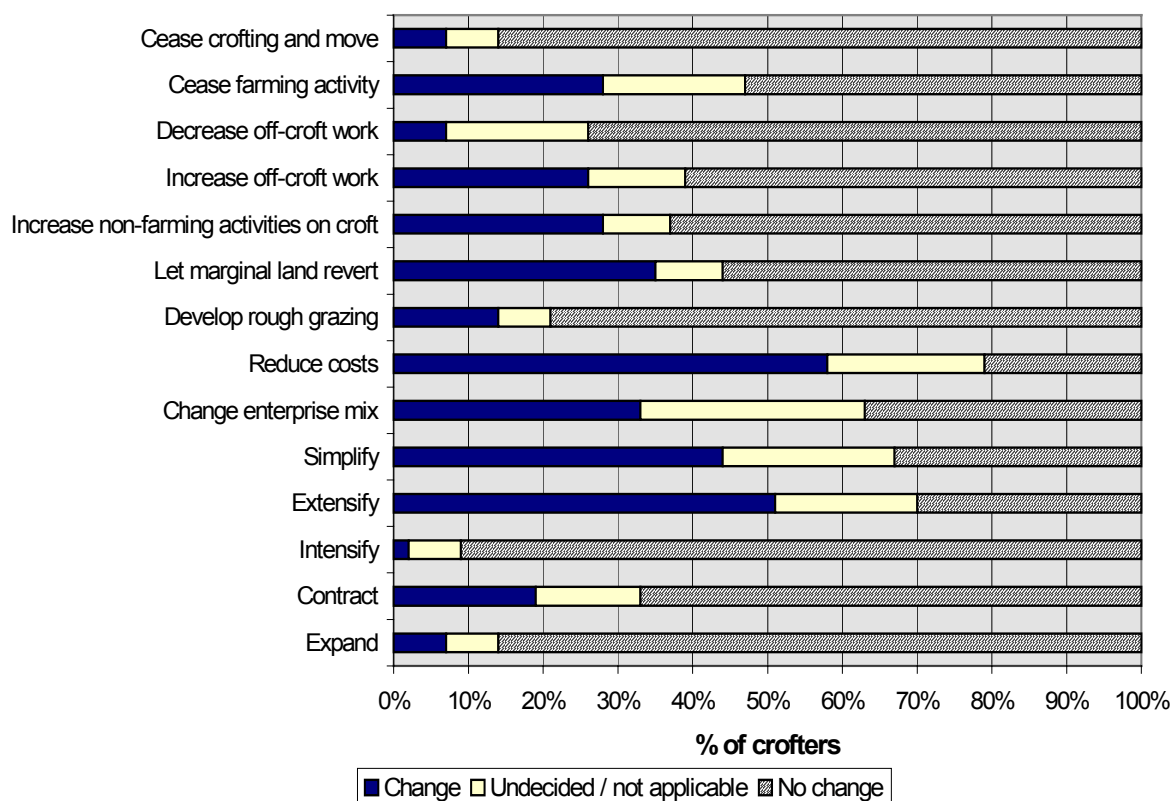


5.3 Scenario 3. Decoupled payments for all rural based businesses

This scenario is similar to the last except that all rural based businesses would qualify for a decoupled payment. Qualification could be linked to the amount of employment (including self-employment) provided.

Probably because of the similarities between this and the last scenario, Figure 6 shows that the responses were generally similar. However, there were some increases in the proportions of crofters indicating that they would increase non-farming activities on their crofts, seek more work away from the croft, and/or cease their farming activities completely, given that support would no longer be linked to active farming of the croft.

Figure 6. Crofters' Anticipated Responses to Scenario 3



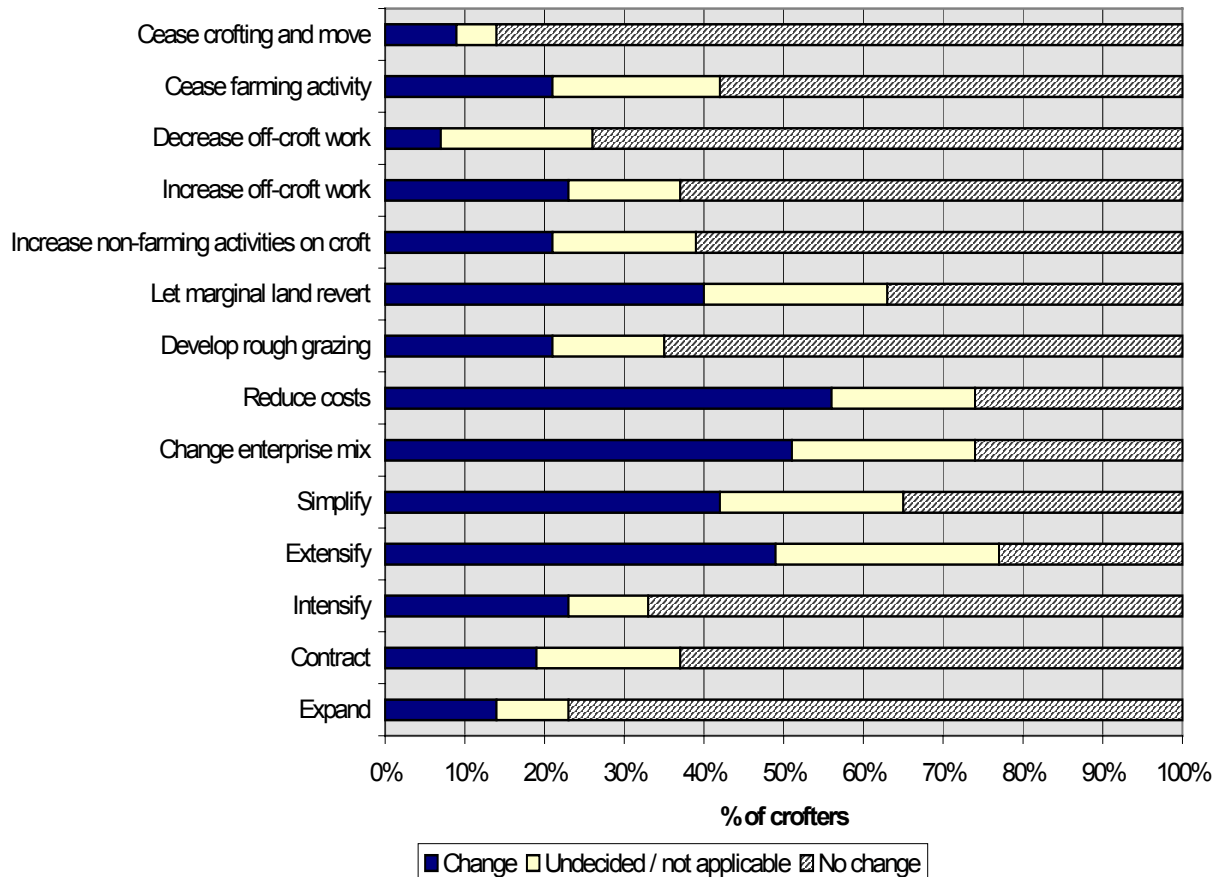
5.4 Scenario 4. All support channelled through agri-environmental schemes

All support for crofters would be channelled through a range of agri-environmental schemes under this scenario. These schemes would be tiered to reflect the commitment of the crofter, and would probably include explicit restrictions on (or requirements for) specific practices in the agricultural use of land. Crofters would not be compelled to enter these schemes.

The responses to this scenario, as shown in Figure 7, are more difficult to interpret and may be less reliable, in that it involved some imagination about what sort of environmentally favourable practices might be supported. In particular, the higher proportions indicating increasing intensification and/or expansion of farming activity under this scenario were based on a vision of support being provided for traditional crofting practices on environmental grounds (eg bindered oats, and loose-handled hay). Otherwise the general direction of responses was fairly similar to scenarios 2 and 3, and rather different from scenarios 1 and 5.

The appreciation or vision of agri-environmental schemes almost certainly differs between crofting districts in proportion to the impact of current agri-environmental schemes. In the Uists and Benbecula, for instance, crofters were very aware of how these schemes worked because of the Machair ESA.

Figure 7. Crofters' Anticipated Responses to Scenario 4

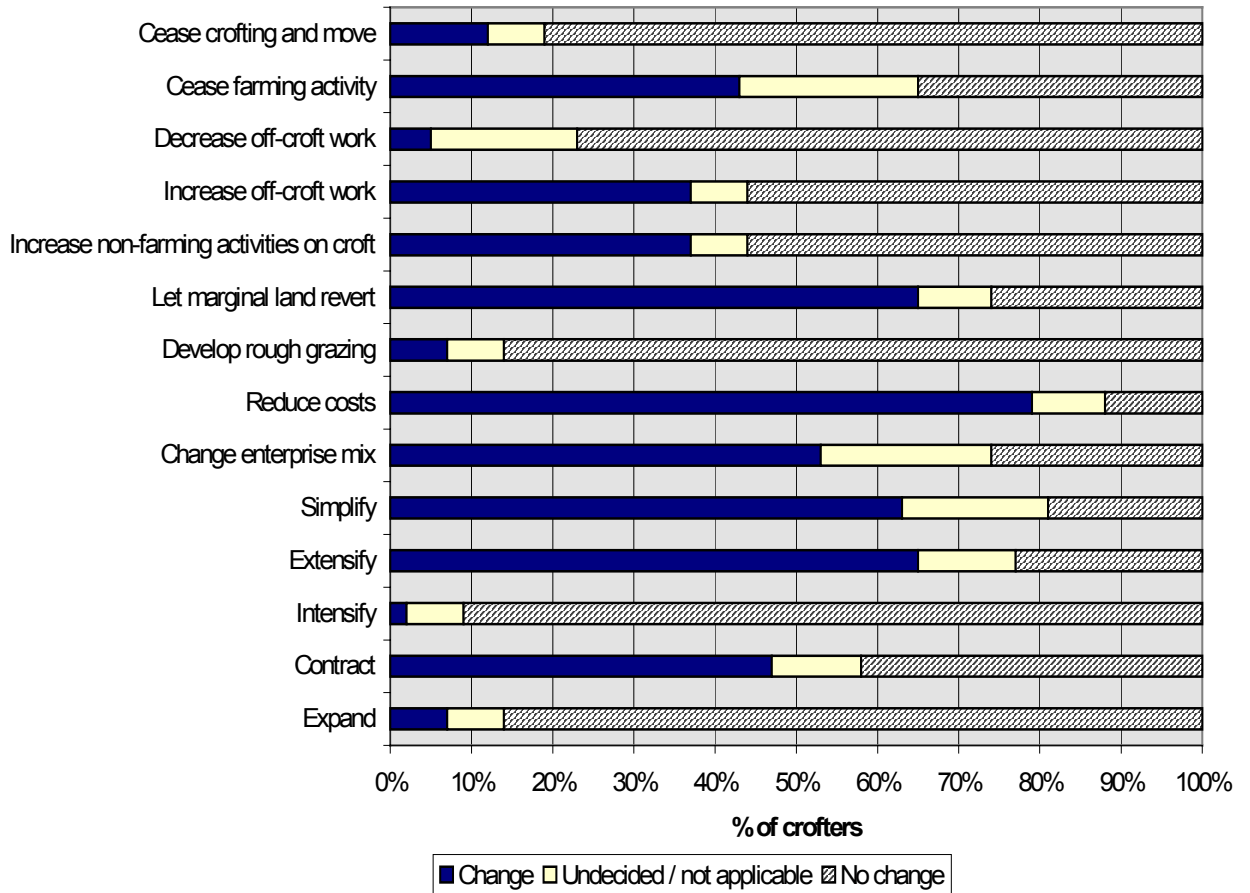


5.5 Scenario 5. No support payments or quotas

This “free market” scenario was surveyed to provide a benchmark against which the other scenarios could be judged. The responses were largely predictable as illustrated in Figure 8. Perhaps the only surprising response was that not more crofters would totally cease their farming activities (indicated as less than 50 per cent). It was clear in the interviews that most of the crofters were very committed to their farming activities, and would only contemplate giving up those activities when they could see that farming was actually costing them money. They were even more committed to the croft as their home, so very few (12 per cent) would consider giving up their crofts and moving elsewhere. Yet quite clearly, those crofters that

would continue farming their crofts without any financial support, would do so at a much lower level of production. The farming activity would be very much a hobby.

Figure 8. Crofters' Anticipated Responses to Scenario 5



6 Discussion and Conclusions

The first year's work on this project has been directed towards establishing a reliable view of

- (a) the trends in the income of crofting households over the past ten years,
- (b) the contribution of different activities to crofting household income,
- (c) how crofting activities have changed in the past ten years, and
- (d) how they may change in future in response to alternative possible scenarios of government support.

6.1 Changes in crofting incomes from agriculture

Whether measured as profit or as family labour income, the average earnings per croft from agricultural activities were significantly lower in 1998/99 than 10 years earlier. A fall in breeding livestock values in 1998 was the main reason for a negative average income being shown in that year, and that is a one-off fall in capital value, which perhaps may be discounted in evaluating income generation. However, the average family labour income from agriculture in 1999 was still less than in 1989 and only 9 per cent above the average of 1988 and 1989. To keep up with inflation the income would have needed to be 48 per cent higher in 1998/99 than in 1988/89⁵. An even greater deterioration is indicated in the earnings per hour of labour from farm work on the crofts, because the time devoted to farm work was estimated to have increased.

The fall in agricultural incomes from crofting has occurred despite the total level of subsidies received having almost doubled over the 10 years (although that amounts to an increase of less than 32 per cent in real terms after allowing for inflation) and it must be noted that some of the subsidy is now provided to support environmental objectives rather than agricultural activity.

6.2 Changes in total incomes of crofters and the contributions from different sources

The total income of crofter and spouse is indicated to have risen by over 60 per cent over the 10 years between income surveys, which is both in excess of inflation and the rise of 56 per

⁵ Retail Prices Index. UK National Statistics

cent in the level of national average earnings⁶. However, it may be noted that the level of crofters' incomes, at an average of £15,287 in total for crofter and spouse, was well below the national average, as indicated by summing the average net incomes (ie after tax and national insurance) of £13,728 for adult males, and £7488 for adult females in 1998/99⁷.

The survey indicates that agricultural income is now a negligible part of the total income of the average crofting household, contributing less than 1 per cent of the total. This may be argued to be biased by the negative farm income in 1998, which arose largely from reductions in the unit valuations of livestock, but the percentage contribution is certainly less than 10 years before, and even then the agricultural income made up only around 9 per cent of the total. None of the crofters is 100 per cent dependent on agricultural income, whereas 7 per cent were wholly relying on farming income 10 years earlier. With that income being so low in the years surveyed, and negative in both years for 24 per cent of the sample, it is difficult to judge how many were looking to obtain a significant part of their income from farming the croft, but only 7 per cent were shown to be obtaining over 30 per cent of their income from farming.

The main source of income was employment off the croft, which contributed almost 60 per cent of the total crofter and spouse income. However, this is less than the 70 per cent contribution it made 10 years ago.

The biggest changes in income sources were increases in the contributions of non-farm activities based on the croft, up from 8 per cent to over 15 per cent, and unearned income, up from 13 per cent to 24 per cent. The latter is probably mainly a reflection of the larger numbers of crofters beyond the statutory retiral age, but the increase in income from other activities reflects a significant trend of diversification from purely farming activity on a significant proportion of the sample of crofts.

6.3 Changes in crofting activities

The statistics of average areas and livestock numbers on the sample of crofts do not indicate dramatic changes in agricultural activities over the last 10 years, but crop production showed

⁶ *Average Earnings Index. Office for National Statistics.*

⁷ *Women's Individual Income Series. Department of Social Security.*

a significant drop from an already low level, and cow numbers reduced somewhat, while ewe numbers increased. Additionally, however, the more detailed survey of changes in the crofting activities, indicated that bindered cereal production largely disappeared, and the production of hay and roots declined. The increasing importance of subsidy payments coupled to cows and ewes possibly explains the stability of breeding stock numbers.

Agricultural production by the holder had ceased on three of the 43 crofts. On the other hand there was more diversification into non-agricultural activities on the crofts and involvement in environmentally related activities, including woodland planting.

Simply considering the average results of this survey of a sample of crofts, which were specifically chosen in 1988/89 as being agriculturally active, may not fully reflect the changes which have been occurring in agricultural activity across all parts of the crofting areas. It has to be realised that the relatively small change, or even increase in the average livestock numbers, masks contrasting changes on different crofts. Thus, although on average total livestock numbers increased in the sample over the period, there were three crofts on which farming activity has ceased. Average cow numbers only fell by 12 per cent, but the number of crofts with cows fell from 27 to 12. Although average ewe numbers increased by 17 per cent, 38 per cent of the crofts showed a reduction in ewe numbers. Clearly there has been a tendency for the agricultural activity to concentrate on fewer more active crofts. The most significant effects of such a trend will be seen in the most marginal areas for agriculture, which may be under-represented in the sample, where agricultural activity is likely to cease or be reduced to minimal levels.

There was considerable variation as to what were the prime causes for the changes which occurred, but agricultural prices were considered an important factor by the majority of crofters, and input prices, red tape and direct support payments were also viewed as important by a significant proportion of them.

6.4 Future prospects and potential effects of changes in support policies

One of the clearest points to come out of the survey of the crofters' views of likely future changes under differing policy scenarios was an almost absolute commitment by the majority of the crofters to continue their occupancy of their crofts, and a strong commitment to farming their crofts, at least as long as they were not actually losing money from doing so.

However, the survey of their incomes showed that the income from agricultural activities was negative for more than half the crofters in 1998 and for over 30 per cent in 1999. Since then the prices for sheep and cattle, which are the predominant agricultural products, have not improved.

Specific details of one of the measures flowing from changing agricultural policy were announced while the survey was being carried out – ie the change in Less Favoured Area support over a three-year transition period from payments based on livestock numbers to payments based on areas of eligible land (decoupling support from production). Using the livestock numbers indicated in the survey, the effect on farm incomes in the sample were estimated, by comparing the payments based on livestock numbers in 1999 with the payments based on areas of specified categories of land, as announced in 2000. The results indicated that 64 per cent of the sample would receive a reduced level of support, and only 19 per cent would gain additional support. The average reduction over the whole sample was £367 per croft, with the greatest reduction being estimated at almost £3,000.

With this significant reduction in agricultural income over the next few years, on top of the rather bleak results indicated in 1998/99, and no immediate prospects of significant improvement in livestock prices, the determination of the crofters to continue farming looks likely to be severely tested. Despite that determination, most crofters will not be able or willing to continue their farming activities when these are making continuing significant losses. It therefore seems likely that there will be much more significant changes in the agricultural activity on crofts in the next 10 years than in the past 10 years, and that is likely to involve significant reductions in farming of crofts in many areas.

The survey does not indicate any immediate threat of depopulation in general, but the longer term effects of the likely reduction of farming activity may have significant implications for the total economies of predominantly crofting areas. In the second year of this research project case studies are being carried out in selected crofting communities to assess how important a role the crofting activity plays in their economies and the general viability of these areas.

The threat of a dramatic decrease in agricultural activity on crofts also raises important issues in relation to the environment. In some regards a reversion to more wilderness and less farming activity may be regarded positively in environmental terms, simply by the fact that there will be less human impact and this may have positive effects on some species.

However, in many crofting areas large stretches of wilderness have been retained, and parts are now managed with specific environmental objectives. It will be farmed land, rather, which may be under threat of extinction, together with the variety of flora and fauna which it has supported, the diversity of landscape which it creates, and the essential culture of these areas with which it is associated. There are, for example, a number of species of birds listed in the United Kingdom Biodiversity Action Plan (<http://www.ukbap.org.uk/bird.htm>) as species of 'conservation concern' (eg corncrake, cornbunting, redshank, golden plover, dunlin, twite) which benefit from areas of traditional croft farming activity and are likely to suffer if that activity declines further.

The reduction in farming activity, because of the environmental and cultural effects could also have significant impact on the tourist industry, which has perhaps the greatest potential for maintaining and increasing employment in many of these areas.

The main issues posed for policy makers from the initial analysis of this data is the need to consider seriously whether retention of a base level of agricultural activity in the crofting areas should be a policy objective, whether for environmental, cultural or economic/employment reasons. It appears possible that this objective may only be achievable through more specific financial support, and the way that support is provided could significantly affect the character of that agricultural activity. As the net value of the crofting agricultural activity is on average negative without government support, and the food production is relatively insignificant in national terms, this represents an extreme case for developing the current moves towards greater emphasis on environment, countryside management and broader rural development in farming policy. The crofters in ESAs have already taken up support specifically available towards environmental objectives in those areas, and the survey shows a trend of increasing diversification of activities on crofts. However, the up-take of more general environmental incentive schemes appears to have been limited, and new initiatives seem likely to be required to balance the economic pressures acting against the agricultural activity in crofting areas at present. In the survey of responses to future policy scenarios most of the crofters indicated a willingness to adapt their activities to specific policy aims, given appropriate incentives.

Further analysis of the role of crofting in the economies of communities in the crofting areas, as well as the environmental significance of crofting agricultural activity, will be made in the final report of this project, including case studies of crofting communities currently being carried out.

References

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Appendix 1. Measures of Statistical Confidence

The original sample investigated by Kinloch and Dalton in 1989/90 was selected by a random sampling procedure, but was stratified by region to ensure reasonable geographical representation. The only specific bias was a restriction to active crofters with at least 20 ewes or equivalent. Data for 1998/99 has only been obtained from some 55% of that target sample, but it is not known whether that self-selection could include any element of bias.

In general it is not considered justifiable, or particularly useful, to take mean values shown for this sample and treat them as statistically representative of crofting as a whole and calculate measures of statistical error to place beside them. However, the primary aim of the income survey was to obtain a direct indication of how incomes in crofting have changed over the ten year period, by comparing current incomes with those ten years earlier in the same sample of crofts. There is significant variation within the sample with regard to the changes in income shown over the 10 year interval. It therefore may be helpful to indicate the statistical confidence limits for the estimates of average change in incomes indicated by the survey:

| Statistic | Sample Size | Mean Value £ | 95% Confidence Interval of the mean. £ |
|---|--------------------|-------------------------|---|
| Change in Average Family Labour Income from Farming 1998/99 -1988/89 | 19 | -1006 | ±1,261 |
| Ditto (including results with data for only one of the two years) | 41 | -1045 | ±785 |
| Change in Net Farming Income per hour of Family Labour 1998/99 -1988/89 | 19 | -0.65 | ±0.69 |
| Ditto (including results with data for only one of the two years) | 40 | -0.48 | ±0.57 |
| Change in Total Income of Croftholder and Spouse 1998/99 - 1988/89 (including results with farming income data for only one of the two years) | 41 | +5,487 | ±3,236 |

The analysis confirms the high level of variation within the sample in that, with a fairly small sample, the degree of possible sampling error in the estimates of change in income is shown to be quite high. It indicates that there is a small possibility that the average change in farming income might not actually have been negative. However, the conclusion that the

agricultural income from crofting remains very low is not in any doubt. On the other hand the indication from the survey that the total income of croftholders has increased at a rate ahead of inflation in prices and average earnings has to be viewed as much less certain.

Appendix 2. Questionnaires for Crofting Incomes Survey and Survey of Responses to Recent and Anticipated Policy Changes.