

Human Ecology and Concepts of Sustainable Development in a Crofting Township

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Concepts of sustainability vary with time, geographical locality, and the prevailing attitudes of individuals within society. Looking at the example of one crofting community, within a framework of human ecology, this paper attempts to trace a wider appreciation of sustainable resource utilisation in the context of its relationships to land use and to rural development. The aims of this study are twofold, to explore the concepts of ownership, tenancy, and use of the land in a crofting township, and to relate these to perceptions of development and sustainability in a rural community over time.¹ The village of Galson, on the Isle of Lewis, was selected for study due to its unique history of habitation and the detailed information available over a long historical period. Human ecology is about the relationships between people and their environment and this study examines how that relationship has changed over time in one locality.² Information for this study was gained in three main ways. First, attitudes towards land ownership and land use of the villagers was sought through semi-structured interviews and informal discussions with individuals over an extended period. These discussions were normally in social or croft-work contexts, and focussed on two main aspects: recollections of the family involvement with the Galson area, and perceptions of current land-use activities, particularly in respect to the public discussions of the potential opportunities available when or if the whole of Galson Estate can be purchased in a community buy-out. This was matched against statistical and map-based information on the land use of the area from previously unpublished sources, including student surveys and the archives of the local Ness Historical Society. Thirdly, the current land use patterns were scrutinised by fieldwork and compared against known historical land use patterns.

The perspective of sustainable development taken here recognises that at the level of an individual township the measurement of sustainability is problematic, despite the plethora of measurable indicators of sustainability currently available.³ The effective usefulness of these indicators varies substantially with the scale at which we are considering sustainability, from the level of the personal behaviour of individuals, to the trans-national balance of natural resources. There is also no doubt that concepts relating to the sustainable management of resources vary over time, as planners, consumers, and development theories evolve to more sophisticated levels of analysis. The arguments and contradictions of sustainable development have been discussed elsewhere,⁴ as have the ideas of conceptual mapping of traditional land rights and the patterns and spiritual associations of land use.⁵ This study is not a straight historical ethnography, as has been attempted with other

Lewis villages,⁶ but rather an attempt to look at a sustainable development in a crofting village from a consideration of environmental, economic, social, and social equity issues.

The crofting township of Galson on the north-western shore of the Isle of Lewis is a small community with a current population of around 140 people distributed over three villages. The township has a long history of human habitation, with a record of a long-cist cemetery dated at the fourth century A.D., associated with a site containing settlement remains of the first millennia B.C.⁷ A 1,000-year-old Iron Age midden and cemetery have been exposed on the foreshore⁸ and archaeological remains that indicate the ruins of a Norse village are found beneath the sand of the coastal machair grassland.⁹ The Norse settlement is unusual in that it appears to have no defensive fortifications, suggesting that the community had been settled long enough to feel secure in the neighbourhood, perhaps as farmers and traders. There is evidence of early agricultural workings, as yet undated, and Thomas¹⁰ cites a Norse saga that claims when 'The first inhabitants were sent (to Lewis) from Lochlin (Norway) by King Donmarag they found only an old woman with two sheep at Galson'.¹¹

In the 1800s the village was a crofting settlement, undivided into individual holdings, approximately parallel to and west of the present main road (A857). This contrasts with the present-day configuration of the township, which lies largely along three short roads perpendicular to the main road. In 1863 this earlier crofting pattern was broken up in a phase of forced evictions, or clearance, which resulted in the entire area encompassed by the present villages of North Galson, South Galson, and Melbost Galson being converted into a tenanted farm.¹² In April 1863, the whole village emigrated to Canada except for eight families, five of whom moved to Brue and three to Barvas.¹³ From this period until 1921 Galson Farm was tenanted by sheep graziers from the south, who lived in the farm house in South Galson, and retained two shepherds in cottages in North Galson and Melbost. A comparison of the Ordnance Survey 1:50,000 maps of 1855 and 1895 show clearly the intervening depopulation of the villages.

In his evidence to the Napier Commission, John MacDonald of Ness was questioned:

15772 Do you know about the people who were removed from Galston? — I ought to. I was born there and my ancestors lived there.

15773 What was the name of the town you lived in? — North Galston.

15774 How many families were removed from that town? — There were over sixty of them. Fifty-four paid rent.

15775 Were there any more townships cleared besides North Galston? — Other three.

15776 Name them? — Balmeanach, Melbost, and South Galston. In Balmeanach there were ten families, in Melbost twenty-five, and in South Galston thirteen.

And later on:

15788 Was it against their will that they were put out of Galston? — Yes, it was against our will, but we went away without being summoned.

15789 Was it for the benefit of the Galston people that they were turned out in this way and went some to America, and some to other places? — I don't know one who benefited by it except one family.

15793 Would you like to go back to North Galston? — I would have some of my furniture there before I slept if I got it.¹⁴

Although not as violent as the land raids at Galson in 1888, when there were fierce, armed clashes between crofters and the police/army,¹⁵ the period 1921 to 1923 was a very active time of land agitation in Galson and other island villages.¹⁶ This finally resulted in government intervention to secure the resumption of Galson Farm back into crofting tenure. There is an indication that the Board of Agriculture for Scotland had earlier proposed a resettlement scheme for Galson, and several other farms in the Western Isles, but that 'because of the [landlord's] agents' stonewalling tactics, not a single one of these schemes was implemented before the war'.¹⁷ In 1923 the village was divided into fifty-two crofting units, which were advertised¹⁸ and allocated by the Board of Agriculture for Scotland through a system of public lottery to new tenants under crofting law.¹⁹ As a result, the present township that we now observe dates almost entirely from this 1923 land resettlement. As with most other crofting townships, the crofters are currently tenants, rather than owners, though in discussions it is clear that they regard themselves as owners in all but title. The township is within the larger area of Galson Estate that is currently actively discussing the purchase of the entire estate by the

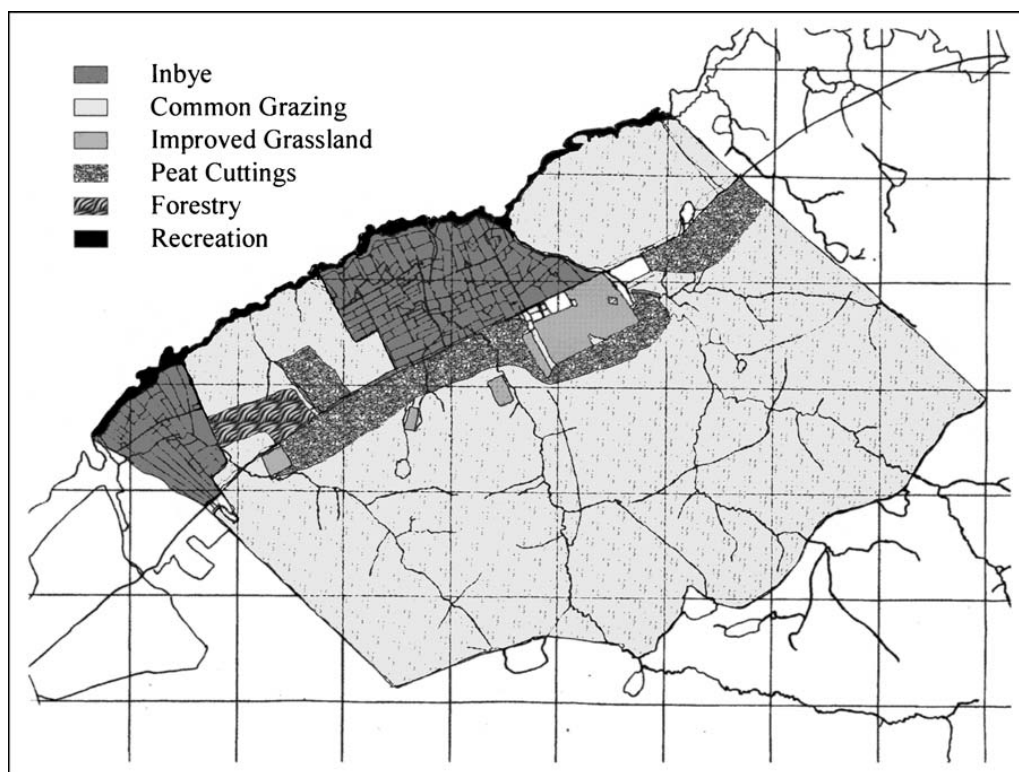


FIG. 1. Map showing land usage in Galson, Isle of Lewis

local community as a result of opportunities created by the recent land reform legislation of the Scottish Parliament. (NB The Galson Trust Estate was acquired by the local community on 12 January 2007). It is this resident population, and their relationships to the land, which will be explored in the rest of this paper.

A number of changes may be observed in terms both of land use and of population. There have been changes in agricultural activity. As with many other crofting townships²⁰ the resettlement of Galson township established a new distribution of field patterns in the in-bye land (improved grazing and arable) that is substantially different from the pre-existing land-use patterns of the village, both the crofting heritage, and the later period of consolidation as a single farm unit. The pre-clearance village was characterised by small unfenced units, lying north-east of the Galson River, and west of the current main road. In contrast, the modern crofting village was established in larger, rectangular lots that are strung out along the three village roads leading towards the sea. Due to this resettlement the field pattern in Galson is completely different from the surrounding villages on the west coast and in Ness, where crofts were frequently subdivided longitudinally to provide successive generations with an equitable share of the variable qualities of land (a piece of both shore and moor). There are a few localities around the township where the landforms of pre-clearance (pre-crofting) lazy beds (feannagan) are still in evidence, though they were gradually abandoned as land management improved.

The period of tenure as a farm has left a legacy of dry-stane dykes marking some field boundaries, and an intricate system of stone-built field drains leading to the river, but little else remains of field patterns or land use. The resettled village did not initially separate the individual crofts, but maintained an 'open village' system which was fenced off from the outrun of the Common Grazings. Subsequent fencing between and within crofts has enabled greater flexibility in the cultivation of crops, as well as a greater individual control of livestock. In recent years, the increasing demands of non-crofting employment, has encouraged livestock to be retained within the village for a longer period of the year, resulting in overgrazing of the in-bye and under-use of the common. A key policy driver in this change from open village to the intensive use of the in-bye has been the commoditisation of crofting agriculture, firstly under the post-war Cropping Grant that encouraged individual lots to be fenced against roving livestock, and more recently by headage payments for sheep production under the Common Agricultural Policy that have maintained high stock levels in a market of diminishing price margins.

Aerial photographs were taken of the township in 1946 and 1966, and it is evident from these that the inbye area of Galson township was intensively cultivated for agricultural production at this period. The aerial photographs taken in 1966 (see Fig. 2) show evidence of considerable agricultural activity, with the construction of at least one dwelling house on each croft, plus some additional steadings, and the photographs are striking in their evidence of the intensive cultivation of the arable land adjacent to the village roads. A complex patchwork of narrow, linear strips demarcate ploughed land, potatoes, forage grassland, and permanent grazing. It seems from the photographs that almost every square yard of these small fields has been pressed into cultivation. The patchwork effect is particularly impressive in



FIG. 2. Aerial view of South Galson (note the field structure)

South Galson, where it spans both sides of the village road and runs down to the machair land of the north-facing raised beach. The mosaic of intensive, small-scale cultivation is remarkable and imposing, and in stark contrast to non-crofting landuse on the west coast of the Scottish mainland. Close scrutiny can detect substantial haystacks, corn ricks, and peat stacks beside many of the houses.

Field evidence,²¹ together with this study, show a progressive decline in the intensity of cultivation, which has recorded its nadir with this study in 2005. The discontinuation of the Cropping Grant in 1972 due to changes in European agricultural policy removed a major financial incentive for small-scale arable production and was a critical turning point in the abandonment of many areas of in-bye croft land. These changes are dramatic and fundamental in their impact upon the landscape and ecology of the study area, and upon low-intensity farming systems in general.²² The complex mosaic of habitat that was such a feature of the crofting system and contributed to its high value in nature conservation²³ has been replaced by poorly managed in-bye land used only for grazing sheep, and in many instances not even for that. In most cases the field sizes and configurations are unchanged, but within each croft, the diversity of habitats that would have been created by small patches of oats (a total of 86.2 acres in small patches in 1959), potatoes (23.7 acres), turnips (4.7 acres) has been lost. Cultivation still continues on

several crofts, but on a much a reduced scale, and mainly as small garden units (Moisley recorded an additional 47 acres of 'garden' in Galson in 1959).²⁴ The start of these changes was noted by Chalmers²⁵ in his land-use assessment, which recorded the lack of oats, the decline in the production of hay (and the switch by some crofters to silage) as well as an increase in the prevalence of rough grazing on the in-bye land.

In addition to the individual croft holdings, each croft has an entitlement to a share of the township Common Grazing. In the case of Galson this amounts to a 55th share of nearly 2,210 hectares, a nominal 40 hectares per holding. This allocation is largely notional as the grazing itself is generally unfenced, neither between the village grazing and the neighbouring townships, nor internally within the village area of tenure. There are three areas of Common Grazing, the main area south-east of the main road, an enclosed area bounded by the main road, the shore, and the village boundaries of South Galson and Melbost; and a third area, also enclosed, on the north-eastern edge of the township. These areas of common are recognised by villagers to have a multiplicity of functions for different land uses and ownership ties, including grazing, peat cutting, and hunting.

The Common belongs to everyone in the village. And it's not just about grazing, though that's most of it nowadays. It's an extension of the croft. People know the Common is shared, even if they are not particularly using it, which is why there are such strong feelings, both ways, about the erection of wind turbines, for instance. It might even be used for new housing, so long as that was done for the common good. (Respondent 1)

Recent land-use/ownership disputes include ownership entitlements for commercial tree planting (now in crofter ownership) and leases for the construction of wind turbines for electricity generation (still under discussion).

In some areas of the Common Grazing, individual crofters have applied for permission to enclose a proportion of their nominal share for their own exclusive use. These 'apportionments', as they are termed, are generally fenced areas of moorland to which shell-sand is applied (in order to reduce the acidity of the peat) fertiliser is also applied then the area is seeded with grass to produce additional grazing for livestock. Once they have been approved and fenced, these apportionments become a legal addition to the in-bye crofting unit of the crofter, subject to normal crofting tenure. There are also two areas of around fifty hectares each in North Galson which are termed 'village apportionments'. These have been created on a co-operative basis by thirty-five tenant crofters of the village as part of a 'minority scheme' (i.e. not the whole village) in the mid-1960s in order to improve the quality of grazing land available to the village. Shares in these village apportionments are maintained annually.

Changes may also be observed in grazing patterns. A significant change in land management has resulted from the increasing domination of the agricultural value of crofting by the cash value obtained from the production of store lambs (rather than wool, mutton, or production for domestic consumption). This change has taken place in two main stages: first, the decline of cattle numbers and the relative growth of sheep stocks; secondly the growing tendency to abandon the use of the Common Grazing in favour of the grazing on the in-bye, closer to the crofter's house. This was ameliorated to some extent in the mid- to late 1980s when

several crofts reconditioned pasturage on their in-bye fields, and re-seeded individual apportionments of moorland under a special Integrated Development Programme (IDP) for the Western Isles financed largely by the European Union.²⁶ The cumulative effects of these changes has resulted in a relative overgrazing of the 'improved pasture' of the in-bye land of the village, and a marked undergrazing of the Common Grazings. Even the minority scheme re-seeding in North Galson has reduced from the thirty-five initial (equal) shareholders in 1965, to regular use by three crofters in 1999–2000.

The removal of grazing pressure from the moorland Common Grazing has resulted in an unrestricted growth of Heathers (*Calluna vulgaris* and *Erica tetralix*) as this vegetation is no longer pruned by livestock nor burned by crofters to generate new growth. On the minority scheme apportionments, as with other areas of re-seeded grassland, rushes (*Juncus* sp.) and other invasive species, such as Sheep's sorrel (*Rumex acetosella*) have colonised the ground as it has become more acidic with progressing leaching of the lime.

There have been changes in relation to peat cutting. Under the terms of crofting tenure, each croft is normally allocated a traditional area for the extraction of peat for domestic fuel.²⁷ Normally this would be cut by hand, in teams of two. The transportation of the peats from the moor to the stack at the back door of the owner's house is traditionally a collective activity, with families and neighbours operating an informal, mutual self-help system. The allocation of peat-cutting areas is conducted by the village Common Grazings Committee, elected by the tenant crofters of the township. In recent times, peat areas have not been restricted to crofters, and other householders in the villages have obtained areas to cut for their own use, though the allocation is regulated, and is not automatic. As a result, parts of the Common Grazing are a complex pattern of inter-linking peat banks, which have strong proprietorial associations, though to the outsider there is seldom anything to distinguish one peat bank from another, far less any indication of ownership and management.

It's a landscape that I recognise. I went there with my father, as a small girl, and I learned where our peats are, and where other people's peat banks are in relation to ours. The drainage, the access roads, it's as clear to me as a roadmap. (Respondent 2)

The lower layers of many of the peat banks in Galson show clear evidence of a different habitat in an earlier climate in the preservation of the woody remains of silver birch (*Betula pendula*) and hazel (*Corylus colurna*) branches which have been dated from 3,000 to 11,500 years Before Present.²⁸

In the past ten years, as part of a township development scheme supported by Highlands and Islands Enterprise, traditional peat rights have been extended through a communal scheme that has been established for mechanised peat cutting for domestic use. Each year villagers can indicate the volume that they require, and a contractor is hired to cut the peats, on a specific area of Common Grazing (between South Galson and Melbost), which is set aside for this activity. A small levy is charged by the township in proportion to the amount cut, and this fund has been used to ensure the adequate management of an access road, drains, and fences. The cut peat is allocated by lottery to participants of the scheme, who then have the individual responsibility for ensuring the drying and transportation of their

own peats. Frequently the harvest of the mechanical peats still functions on the basis of a communal or extended family activity. This co-operative style of management has resulted in other group products, notably communal sheep-handling pens and facilities in North Galson, (built on the site of older, run-down facilities) which were funded and constructed in 1985, partly by local labour. To a lesser extent, the construction of access roads for peat cutting and livestock movement have been constructed and maintained by the Grazings Committee on behalf of the village.

In the ten years between 1990 and 2000, there was a rapid decline in the number of families who hand-cut peat for domestic fuel. The decline has been less dramatic but far more swift than the abandonment of arable land. Interviews with township residents indicate that in part this is a result of domestic conversion to central heating fired by oil, gas, or coal burners, and in part by householders choosing mechanised peat cutting through the township scheme as opposed to the labour-intensive requirements of hand cutting. There has therefore been an overall decline in the volume of peat cut for fuel, together with a shift in the geographical distribution of cutting activities. In terms of sustainability, there are mixed consequences, though most householders have made their decisions on the basis of personal convenience rather than on perceptions of sustainability and conservation of peat resources. In summer 2000 Scottish Natural Heritage designated a peatlands protection scheme covering an extensive land area in the centre of northern Lewis. This designated area includes parts of the outer reaches of the Galson Common Grazings, and may also impinge upon future proposals for wind power generation but it is too early to tell if this will have any significant management impact on the township land as a whole.

The local ecosystem has changed. Even at its most intensive period of activity, crofting land use was a low input-low output system, with little pollution of the natural environment, and a strong reliance upon natural fertilisers, selective use of pesticides, and extensive livestock management.²⁹ Since the mid-1950s, with a greater dependency on the cash value of agricultural products, there have been major and progressive changes to the local ecosystem resulting in habitat-mosaic loss on the inbye land with the abandonment of arable cropping. A greater reliance (and availability) of imported hay, as well as (to a lesser extent) the conversion to silage or haylage, has resulted in the wholesale loss of hay meadows. Together, these losses constitute a considerable depletion of habitat diversity within the three villages, and while not irreversible, there seems little prospect of a return to the previously high levels of habitat variety under current land management structures. Current land users feel that there are strong financial disincentives to increase land management for agricultural activities at the present time and few see any likelihood of any improvement. Significantly, there has been a major shift in perceptions, decoupling the ability to pursue a high level of agricultural activity from the skills/income necessary to maintain sustainable social and economic improvements in the township.

Another communal activity, started in 1994 as part of the Township Development Scheme, was the creation of a commercial forestry operation on part of the Common Grazing. The initiative was a response to policy initiatives on the diversification of land use and serves the dual purpose of enclosing a deep marshy

area that is dangerous to livestock, together with establishment of a long-term investment in timber production and landscape amenity. A shelter-belt was established in the mid-1960s on one of the village apportionments but tree planting for commercial purposes is unusual in crofting. This has only become possible due to the revision of the Crofting Act in 1995 enabling crofters (rather than their landlords) to own any trees that crofters planted. Although there is not a tradition of tree husbandry in the area, it is interesting that the consideration of communal forestry as a suitable form of land use investment was greeted with village approval shortly after the legal impediment to tree ownership by crofters was removed.

Certain land-based changes may also be observed. Since 1964 the domestic water supply for the village has been gathered in the catchment of the Common Grazings and locally treated, but there are a number of recognised (and maintained) wells within the area of the village, some of which would appear to have a lengthy history of human use. To a lesser extent the local community have an interaction with water resources through angling and rock-fishing (largely on traditional, coastal stances). The harvesting of shellfish, predominantly the edible whelk (*Buccinum undatum*) has also been regarded as a local resource, and though this activity is less common at the present, until the last few years freelance pickers have exploited traditional local sites as a source of additional household income.

In terms of local use of local natural resources, a limited small-scale, extraction of sand and gravel takes place, largely from the beach at South Galson, primarily for personal use. Historically, the primary renewable natural resource was seaweed, which was taken from the shore and applied to the arable fields as fertiliser, and while this practice is largely discontinued, there is still a little harvesting by householders for use on domestic vegetable gardens. At various times in the past birds eggs (particularly gulls, *Larus* sp., but also plovers) have been harvested from specific sites for domestic consumption and local anecdote would suggest it was common until the late 1950s. In the past, rushes and heather were both harvested to provide thatch for houses and out-buildings and heather was cut for the purpose of hand-twisting into ropes for croft use, but this has also been discontinued. In interviews, older residents still identify traditional areas for the cropping of these natural resources.

The township has an important archaeological heritage, with a small cemetery on the South Galson machair that has been a site of religious importance since pre-Columban times. The village is also the location of an early Christian church³⁰ painted in 1820 by Daniell on his tour of the UK coastline.³¹ The village cemetery is still in use, though most householders in the village elect to be buried either at Habost or Barvas cemeteries, approximately ten miles north and south respectively. This choice reflects the location of their families before moving to Galson in the 1923 resettlement. Some families from outwith the village continue to be buried in the Galson cemetery, also for historical reasons, and this is reflective of the deeper perceptions of identifiable ties to particular areas of land by particular families. The main feature of archaeological importance is an Iron-Age kitchen midden and dwelling structures that date from at least the Norse Period.³² This site has produced a considerable amount of valuable archaeological material, including



FIG. 3. View of South Galson looking north-west from the moor

pottery, jewellery and numerous human remains, and is currently the proposed subject of a detailed excavation.³³ Other attractions include a ruined broch³⁴, a grain-drying kiln, and the remains of several small Norse mills built astride the village rivers.

The removal of livestock from the in-bye land of the village to the temporary summer pastures beyond the limits of the village outrun was a common Lewis practice in land management.³⁵ Due to its clearance and subsequent, relatively recent resettlement, Galson, unlike most of its neighbouring townships, does not have traditional areas where shielings were maintained as part of seasonal, pastoral agriculture. There are, however, several areas of shielings that were operated by neighbouring villages, and in some places these encroach on the edges of the Galson Common Grazing. These areas are still recognised in interviews with older local residents, and though the areas no longer functioning as shielings, they still figure in local place-names, folklore, historical anecdotes, and as navigational features for people venturing out on to the moor (for instance, when gathering sheep). Collectively, the village association with areas of natural resource or heritage significance is commonly recognised by older residents as evidence of continued family ties with these areas.

The resident population has changed. Figures on the families coming to Galson as a result of the 1923 resettlement are not wholly accurate, but seem to indicate

the presence of a significant local population at the start of the 1800s.³⁶ There are suggestions that South Galson was farmed at this time, and North Galson is shown as being a farm of John MacKenzie by 1814, though records indicate that by 1815 it was let to 24 tenants, increasing to 27 in 1827.³⁷ Oral history suggests that probably the village moved at this time with the building of the main road and that reletting took place in Galson, as elsewhere, in 1851. In 1900 there were only four occupied households, the farmhouse, farm labourers' accommodation (South Galson) and two shepherds' cottages (Melbost and North Galson). By 1925 there were 55 resident households, and by 1959 there were 60 resident households in the whole of Galson.³⁸ In 2000 there were 48 resident households between the three villages in Galson township, and in 2004 this had risen to 54 resident households. There were several detailed studies of crofting and land use in the late 1950s, notably by the Geographical Field Group at the universities of Glasgow and Nottingham,³⁹ and the same group undertook fieldwork in other parts of the Western Isles, including Ness, which has remained unpublished.

Table 1 gives an indication of the population change by combining data from a survey by Moisley and Caird⁴⁰ together with data from an intermittent census conducted by the local secondary school.⁴¹ This clearly indicates the extent of population decline in recent decades. In part this can be explained by the trend towards smaller families, in part by the usual factors of death and out-migration for reasons of higher education or employment. Together, the figures indicate a 39 per cent decline in resident population between 1959 and 1999. The 1959 survey does not give information for the whole of the Ness area, but the school data are consistent in five-year intervals since 1979, and this illustrates a depopulation rate of 27 per cent between 1979 and 1999, comparable with a depopulation of 25.0 per cent for the 22 villages of Ness as a whole. Although the total population in 1999 is only slightly more than half of the 1959 figure, there appears to be a stabilisation over the last 20 years, with recent in-migration to the township.

A final aspect in the consideration of attitudes and impacts on land use relates to the changing employment patterns that the township has experienced. In common with other parts of the crofting community, households in the study area have a

TABLE 1. POPULATION OF NORTH GALSON, SOUTH GALSON, AND MELBOST

Age Range	1959		1979		1984		1989		1994		1999	
	M	F	M	F	M	F	M	F	M	F	M	F
under 5	8	6	1	5	4	2	1	4	4	5	1	1
5 to 15	16	17	13	13	8	8	8	7	5	6	5	10
16 to 29	64	58	19	11	14	11	7	5	8	10	8	12
30 to 64			38	39	38	35	30	22	30	31	25	29
over 64	22	27	21	22	15	21	15	22	25	23	25	17
total	110	108	92	90	79	77	61	60	72	77	64	69
Total	218		182		156		121		147		133	

traditional dependence on a diversity of paid activities to supplement the modest income from agriculture.⁴² The existence of pluriactivity is closely related to the underlying farm business and household income strategies which vary in importance for different rural localities.⁴³ Field evidence from this study indicates that while pluriactivity is still an influence in shaping patterns of crofting land use, the agricultural component has assumed a diminutive importance with respect to wage labour, predominantly pursued outwith the township. Interviews on the subject with local residents continually re-emphasise the fact that while crofting agriculture post World War II has been in almost free-fall economic decline, it still remains a factor of strong emotional attachment to the area and provides a base to pursue other forms of more stable income earning. Although some people do pursue their economic activities in the township, the majority of residents commute to their employment in Stornoway or further afield. It was stated by several people that the good availability of non-croft work helped them to envision the continued sustainability of the village, and indirectly allowed them to continue their modest agricultural activities (almost as 'hobby farming').

Our understanding of sustainability is based upon socially constructed values and concepts that will change with time. Despite a general desire to pursue that which we loosely describe as 'sustainable development' we are limited by our contemporary definitions and consensus, which is made difficult by the lack of clear scientific consensus on issues relating to representativeness, scale, diversity of 'natural' ecosystems and the fact that these ecosystems are modified in many cases by centuries of human use.⁴⁴ As a consequence, our contemporary aspirations for achieving sustainability will be different from preceding years, and will inevitably change in the future in response to changing social, economic, and environmental conditions. This mitigates against a rigid empirical definition of sustainability. These factors are reflected in the perceptions of residents living in the Galson township as evidenced by their interview responses. Based upon the continuing local perceptions of interactivity with the natural environment recorded in this paper, an understanding of the sustainability of Galson township can be considered in four main areas:

- 1) Social sustainability (population trends and social activities);
- 2) Economic sustainability (crofting agriculture and pluriactivity);
- 3) Environmental sustainability (habitat change);
- 4) Social equity (lifestyle and quality of life).

Definitions of sustainable development must, by common agreement⁴⁵ include aspects of the economic, social, political, and environmental aspects of development, and there is now an explicit realisation that it is the interaction of biotic and abiotic factors that improves human welfare, and gives a region its distinctiveness.⁴⁶

At first sight the township of Galson, like many other crofting villages, would seem to be in a spiral of decline that renders the community unsustainable in the long term. Compared with the evidence of the township in the 1920s the contemporary township is lower in total population, lower in the number of school-age children, lower in area of arable land use, with less agricultural activity

and traditional community activities such as peat cutting, hay-making, sheep-gathering, and shearing. Although this is true, current levels of these indicators are higher than either the pre-settlement Galson Farm, or the pre-farm (pre-clearance) crofting village. Although the population level has declined since the initial resettlement days of high population, and this is looked upon gloomily in discussions with older residents, the village is still attracting in-migration to the area and almost all of the houses are locally owned and inhabited all year round. Local people interviewed are very much aware of these historical changes, but almost always articulate this in the context of a higher quality of life nowadays (regular employment, varied employment, better housing). It is clear from this that measurements of sustainability in development must be considered in the context of a relevant time frame.

The perception by locals of a decline in sustainability seems to be strongly related to the observable images of less active land use (crofting agriculture) than in the past. These changes have been noticeable within a lifetime, and even younger residents commented on the changes to cropping patterns and land use over the last two decades. It would seem that these changes have been largely driven by changes in the balance of pluriactivity (multiple job-holding in the household) and particularly the increasing availability of other jobs in the local economy that have made reliance on income from crofting agriculture seem less attractive or dependable. These changes have been driven and reinforced by changes to the patterns of livestock husbandry such as the decline in cattle numbers, the switch to store lamb production, the introduction of cattle and sheep quotas, and a greater proportional reliance on Economic Union agricultural subsidies as a contribution



FIG. 4. Sales day at the village fank in North Galson

to household income. These trends have led to a greater disposable household income that reinforces a trend towards purchasing food from shops rather than growing on the croft for personal use.

It is clear that the scale of scrutiny is important in the consideration of sustainability. It is common for township residents to live in the village but earn their living elsewhere by commuting, shift-work (offshore, abroad) or teleworking, options that were not available to their predecessors. The decline in crofting agricultural activity is a microcosm of the general downturn in family-owned farms in the UK, and the change in the balance of pluriactivity reflects the increase in financial rewards from the non-agricultural economic activity of the household as opposed to the steady decline in profit margins from croft-based agriculture. Despite this, many residents were keen to point out that they maintain a small involvement in crofting agriculture almost as a hobby activity, but that they regard this as a crucial added value to the culture and distinctive identity of their community. A result of the less intensive arable land use and the abandonment of in-bye fields is the significant reduction of the vegetative landscape mosaic, and a consequent loss of habitat diversity. Once again there is a common recognition that land use patterns have been substantially different in the past; from small early lazy-beds, farm grazing and barley growing, intensively worked post-settlement crofts, to present-day patterns. This also may be a temporary phenomenon, and the growing importance of environmental stewardship schemes over production subsidies offers the possibility of improved habitat diversity in future decades. It is significant that in 2003 corncrake (*Crex crex*) again nested in the village after many years of absence.

These inter-related changes persist, and some members of the community are currently discussing co-operative schemes for the management of land, livestock, and machinery that may reduce the individual burden in favour of collaborative approaches to 'hobby farming' rather than the subsistence agriculture of the past. A key element in this is current debate on a local community trust purchasing the land rights, following the recent trend of other crofting estates, and the potential impacts that this will have on community sustainability.⁴⁷ Potential income to a community trust from the erection of wind-energy turbines is a hotly contested issue, with opinion divided on the level of protection needed for traditional values and landscapes, even at the potential loss of considerable inward investment.

The legal right to security of tenure by the 1921 re-absorption of the township into the provisions of the Crofting Act, was in itself a significant and positive factor in the efforts to secure sustainable local development. This is in contrast to the wider agricultural changes in the UK that have resulted in greater corporate ownership of land and greater corporate organisation of production.⁴⁸ Several members of the community have emphasised the significance of the 1921 land raids and the subsequent break up of the farm into crofting units to create the three villages as *the* key factor in ensuring the survival not just of their own families but of the distinctive local culture and identity.

The decline in the agricultural market value of croft land means that the potential value of a croft for a house site in rural areas has become significantly more important. In this respect the crofting community have a key asset that crofting law

enables house sites to be acquired within families at minimal cost. Crofting law also allows for a measure of control by the crofting tenants in the allocation of land for other purposes relevant to the common good of the township, and this has been used to benefit township funds and amenities in some localities. This can be regarded as a positive contribution towards improving long-term sustainability, in that access to and ownership of the land is being brought more closely into community control and accountability.⁴⁹ It is against this background that the ownership of the Galson Estate by the resident community is now becoming a hot political issue⁵⁰ with vocal local factions for and against community ownership and with the arguments in favour of sustainable development being used by both factions.

There is a perception among some observers of crofting that the current decline in crofting agriculture and the loss of population in some localities is a sign of terminal decline. This study shows that this need not necessarily be the case in the longer timescale. Crofting communities in comparable areas, such as Shetland, are experiencing retention or a rise in rural population and standards of living as measured in employment and domestic disposal income indicators. This may be a cyclical pattern. Two things are very certain, first that a return to the more intensive styles of land management in crofting communities such as Galson will only occur if the residents adopt new and innovative collaborative solutions that emphasise shared assets, extensive land use, and higher profit-to-labour margins. Secondly, in the move away from subsidised socio-agricultural systems towards more integrated approaches to rural development (including conservation, recreational assets, and distributed learning or telecommuting) we need to have much more sophisticated ways of trying to measure what sustainability actually *means*. In discussions, the majority of residents spoken to identified strongly with Galson and considered it a desirable place to live. Their perceptions of 'sustainability' depend very largely on the context in which the term is discussed, and individuals exhibit differing opinions when asked to consider the changes in different time frames and/or the different sectors of village life (crofting agriculture, peat cutting, off-croft employment, quality of housing). Although residents also associate a decline in sustainability of the township with a lower population than the post-World War I period, from a historical perspective the current population level is relatively stable, with the high 'blip' in the 1920s due to the resettlement of households with relatively large and young families.

Increasingly in analyses of sustainable development there is an explicit acknowledgement that issues of social equity and social justice are integral factors in the process of measuring sustainability.⁵¹ In the context of this crofting township, there has been a demonstrable improvement in social equity relating to three main areas that survive in folk memory and to some extent condition current views towards landscape and sustainable development. First, security of tenure and associated safeguards of the Crofting Acts have been dramatically affected by the intervention of local people and the government to break up the farm and recreate a crofting township. Secondly, the extension of the legal right to bequeath the croft tenancy to female as well as male descendants was an unusually early form of equity and has further strengthened the retention/settlement of families in the area. Thirdly,

on the whole, we recognise that socio-economic status and measurable factors of quality of life have improved over the last century (better housing, stability of land tenure, diversity and stability of employment, greater disposable income, better access and quality in education and health). This is true specifically for Galson township, and in rural society at large,⁵² so these factors need to be taken into consideration in any holistic attempt to describe and quantify sustainability in relation to development in any specific locality. There is a recognition among the people who were interviewed that issues of sustainable development are complex and multi-faceted, and that responses to croft management and sustainable development are also varied and individualistic.

In as much as our views of development are constructed by our societal perspectives, our views of sustainability are also conditioned by the collection of data based upon our previous belief systems. From the family farm perspective⁵³ there are four primary reasons for the development of non-sustainable agricultural systems:

- a) The industrialisation of agriculture;
- b) The loss of traditional values;
- c) Increasing corporate ownership of agricultural firms;
- d) The lack of an ecological approach in farm production.

It is clear in discussing land management options with local residents, and comparing this with historical trends, that the reversal of these four points are prime reasons that have substantially contributed towards establishing Galson as a vibrant and sustainable rural community. It has been stated that 'the most serious environmental problems in agriculture are those caused by technologies that make large-scale farming possible, and that sever the rewards of farming from the rewards of stewardship and husbandry'.⁵⁴ In the case of Galson, the resistance to large-scale farming seems to have been a key enabler in retaining local affiliations with the rewards of the management of land and place. There seems to be a very firm resolve to buck the modernist trend of larger, more intensive, less diverse, holdings under fewer, larger land-holders. This resistance, it is suggested, is at least as much a result of cultural perspectives and intrinsic survival strategies adopted by the residents of the crofts, as it is dependent upon the physical limitations of climate, soil, and distance from large commercial markets.

The reliability of our definitions of sustainable development and the construction of its meanings will in turn be tested by how the responses of small-scale land users in villages such as Galson alter the eco-system of which they are a part. In this context it has been said that, 'People need to be observant of their eco-system and responsive to its needs, and cultures need to be assessed according to these criteria of sustainability over a long time-scale'.⁵⁵

ACKNOWLEDGEMENTS

My thanks to all those people who have supplied me with information for this paper, especially to Roderick M. MacDonald, Donald MacRitchie, Dr Finlay Macleod, Iain MacLeod, Dr Mary MacLeod, Professor James Caird, John Smith, and Agnes Rennie.

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