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Salience and its implications for Common-Pool Resource management in Scotland: a tragedy of a different kind?

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Abstract

In past contributions to CPR theory, the issue of salience /dependence on a resource has been flagged up as a one of a number of significant factors for robust CPR management. Nevertheless, few authors have pursued the matter in greater depth other than to assert that if the salience or dependence on the resource by group members is high, the more likely there is to be robust management. Moreover, for the majority of CPR studies, salience is implicitly or explicitly assumed to be high. However, cases do exist of CPRs in which this assumption does not hold, and consequently, related theory proves to be of limited utility in explaining the associated institutional and management-related phenomena. This paper challenges this assumption (and related assumptions) with reference to a recent study of common grazings in the Highlands and Islands of Scotland, which feature a marked decline in the users' dependence on the resource and a trend towards moribund communal arrangements and in some cases de facto privatisation. In highlighting some of the opportunities and constraints for common grazings management, the paper demonstrates that some of the basic preconditions implied in many CPR models are not always met in a post-productivist context. Indeed, the study found that CPR problems can be about declining use as well as under-use, that CPR goals can concern resource revalorization not conservation, and that the relationship between salience and shareholders' motivation for CPR management is more complex than commonly portrayed in the literature. Indeed, the perception and capture of changing contemporary CPR values by various stakeholders is often problematic and, despite the dissimilarities with more 'traditional' commons tragedies, deserves more attention than has thus far been given by CPR scholars. The elaboration of this CPR example underlines the way in which certain a priori assumptions about CPRs could be potentially misleading, and highlights the value of drawing contextual factors closer to the centre of the debate. In so doing, the paper calls into question the possibility and utility of constructing a coherent CPR meta-theory.

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Introduction

‘Tragedies’ concerning the exploitation of common-pool resources (CPRs) and the circumstances under which they can potentially be avoided are well documented in the burgeoning body of common property literature. However, in the majority of these texts a number of assumptions are made regarding the nature of the ‘tragedy’, the related primary goals for CPR management, and issues surrounding the sources of motivation for CPR management. For example, one of the most frequent assumptions made, either implicitly or explicitly, is that protecting the resource from the threat of over-use and ensuing environmental degradation is the top priority for management (McCay, 2002).

This paper conveys the findings of an empirical investigation of crofting common grazings, a set of CPRs in the Highlands and Islands of Scotland, which challenge the validity of these particular assumptions, and thus, the utility of CPR theory in understanding real-life CPR scenarios. The elaboration of these common grazings examples illustrates the particular kinds of opportunities and constraints faced by CPR users in a context of post-productivist rural change, where consumption-related demands for rural goods and services are displacing the former dominance of primary production. An opportunity is thus provided to assess whether CPR theory can be equally useful for comprehending commons dilemmas in ‘developed’ and ‘developing’ contexts. However, it is found that some of the basic preconditions assumed in many CPR models are not met in post-productivist contexts in the Highlands and Islands.

In particular, it is highlighted that CPR problems can be about declining use as well as overuse, that CPR goals can be about resource revalorisation as well as conservation, and that the relationship between the users’ dependence on, or value/salience of, a CPR, and their motivation for CPR management, is not as straightforward as implied in the literature. In addition, the paper demonstrates that despite the disparity with the more ‘traditional’ commons dilemmas, these types of CPR scenarios are worthy of further attention in CPR research. Consequently, the paper argues that it can be potentially misleading to make *a priori* assumptions about CPR-related phenomena, such as high levels of user dependence or value, or conservation-oriented core objectives, and that the related question of motivation for management deserves more in-depth attention from CPRs scholars than has thus far been given. Furthermore, given the variation and complexities illustrated in the empirical CPR examples, both the possibility and the utility of constructing a coherent CPR meta-theory is called into question.

Literature Review

It has been recognised in the UK, as in many of the more ‘developed’ countries of the world, that the socio-economic character of rural areas is undergoing fundamental change. This change is being driven by a simultaneous decline in the social and economic significance of primary rural industries, particularly agriculture, and a growth in demand for a new set of rural goods and services. On one hand, the general decline in both agricultural employment and the relative importance of food production has been coupled by the challenges to the industry of both structural changes and the crises of BSE³ and Foot and Mouth disease. On the other hand, increased affluence, mobility, changing cultural and environmental values, as

³ Bovine Spongiform Encephalopathy or ‘Mad Cow Disease’.

well as an ageing population, have generated an expanding interest in visiting and living in the countryside, with particular ‘demands’ in terms of landscape, conservation, heritage, leisure and recreation. In short, rural areas are increasingly becoming spaces of consumption, as well as production, resulting in new patterns of diversity and differentiation (Marsden *et al.*, 1993; Winter, 1996; Curry & Owen, 1996; Marsden, 1999).

The way in which these forces of contemporary rural change manifest themselves in a UK common land context has become of interest to policymakers and a small but growing number of analysts, albeit with a focus on commons in England and Wales. For example, Wilson (1993; 1997) sought to examine the role of common land in the post-productivist countryside, with particular regard to how multiple uses and interests might be harmonised. Short & Winter (1999) and Short (2000) have looked in detail at issues of commons governance and control, and also how engagement with agri-environmental policy might influence commons management to alleviate environmental pressures. Edwards & Steins (1998; 1999) highlight and investigate a range of dilemmas surrounding the use and management of complex, multiple-use commons, using the New Forest commons⁴ as an empirical example. Moreover, they place much greater emphasis on grounding their analysis in a theoretical context, more specifically one that accounts for the role of contextual factors in the management of CPRs. This will be elaborated upon further in the following discussion of CPR theory.

Although issues of common resource use have been deliberated throughout history, the 1960s produced two major stimuli to the development of contemporary CPR theory: Olson’s book ‘The Logic of Collective Action’ in 1965, and Hardin’s brief paper propounding the ‘Tragedy of the Commons’ model in 1968. Both these authors used a rational choice framework to forward the pessimistic view that the joint use of resources would always tend towards failure due to the inherent conflict between the individual and common interest. Olson (1965) explained this in terms of the tendency for self-interested individuals to behave opportunistically and “free-ride” on other group members, asserting that they will not act to achieve group interests without some kind of coercive device. Hardin (1968) presented the problem as an immanent tragedy of overexploitation and resource degradation, where the rational individual would always have an incentive to extract an additional resource unit, as all the benefit of it would be theirs alone while the costs would be spread amongst all the users.

Since this time many researchers have set out to critique, refine and present alternatives to these models. Many begin with the basic objection that the ‘tragedy’ thesis does not acknowledge or explain the plethora of empirical examples that demonstrate well functioning and historically enduring CPR management (Ostrom, 1990; McKean, 1992; Bromley 1992, McCay & Acheson, 1987). In the subsequent endeavour to account for this variation in commons “success”, two main approaches can be identified.

The first, more dominant, approach is grounded in a rational choice framework and is largely the domain of neo-institutionalism. The central argument is that co-operation for resource management *can* be economically rational, but it depends on the incentive structure faced by the individual when making their cost-benefit calculus in CPR-related decision-making (Ostrom, 1990; 1992). Furthermore, if for some reason the incentive structure is not conducive to co-operation (i.e. fails to bring about the simultaneous production of

⁴ The New Forest is an ancient medieval hunting forest in Southern England.

individually and collectively rational outcomes), it can be changed, for example, through the creation or adaptation of institutions, to encourage actions that are simultaneously in the interests of both the individual and the group (ibid.). Within this perspective most effort has been channelled into the identification of generalisable ‘principles’ or conditions under which successful co-operation is most likely to occur (Wade, 1988; Ostrom, 1990; Tang, 1992; Baland & Platteau, 1996). These primarily focus on the institutional arrangements, as well as attributes of the resource and the user-group. For example, clearly defined resource and user boundaries, conflict resolution mechanisms, and implementation of rules with monitoring, enforcement and sanctions.

The second approach, like the first, aims to understand commons dilemmas and their solution, and often acknowledges the contribution of the rational choice endeavour in helping to draw attention to and frame certain aspects of CPRs for further investigation. In contrast, however, the second approach identifies and seeks to address a number of limitations associated with the use of a rational choice perspective for the elucidation of CPR issues. At the core, there is discomfort with a number of assumptions made, and discontent that a substantial range of factors that influence “rationality” and the perceived costs and benefits in particular choice-sets are routinely ignored or glossed over. Some of the key objections are outlined below and are highly relevant to the study of crofting common grazings.

One of the more frequent criticisms concerns the tendency to ignore or simplify the networks of social relations in which the economic actions of individual CPR participants are embedded (Peters, 1987; Petrzelka & Bell, 2000; Cleaver, 2000). As Petrzelka & Bell (2000) state, “a CPR is not an entity complete and entire unto itself; it cannot be analysed apart from the overall social system of which it is necessarily a part” (p. 344). In fact many critics take this further, pointing to how the common conception of the CPR as an isolated system and the accompanying preponderance with ‘internal’ characteristics often obscures or marginalises a number of important external and contextual factors that influence CPR-related decisions (Mosse, 1997; Edwards & Steins, 1999; McCay & Jentoft, 1998; McCay, 2002). They emphasise that real-life CPR scenarios cannot be understood without situating them in their broader social, cultural, historical, economic, political, technological and institutional context (ibid.). Moreover, the importance of conceiving of these factors in a dynamic way is underlined by many of the above authors, in order to acknowledge and comprehend the recursive and mutually constitutive nature of many of their interrelationships, and the wider processes of which they are a part.

Another objection to the rational choice model concerns the frequent assumption that CPRs are subject to a single, extractive type of resource use, when often the empirical reality belies a complex configuration of multiple uses that can be extractive or non-extractive in nature. Indeed, it is also possible for CPRs to generate non-use benefit streams (Steins & Edwards, 1999; Mosse, 1997). This assumption is symptomatic of the general neglect of less tangible aspects of CPR management, such as meanings and values, which can also influence the way people act with respect to the resource. For example, Mosse (1997) highlights the dangers of a ‘narrow economism’, in which the utility and value with of a resource are defined so constrictively that certain intangible aspects of CPRs that matter to actors and influence their behaviour, are easily overlooked. He illustrates this with reference to irrigation tanks in India, which are regarded as repositories of symbolic value, as well as their more obvious functional value, and thus advocates the extension of the scope of analysis to encompass a much broader definition of economic interest than is conventional in most CPR theory.

One type of assumption that is particularly problematic for understanding crofting common grazings CPRs is that which regards the top priority for management as the avoidance of environmental degradation and resource-unit scarcity. McCay (2002) makes the observation that the primary goal of CPR management is not always resource conservation or sustainability, but can equally be the minimisation of conflict, the repelling of incursions from outsiders, or the claiming or reasserting of cultural identities and political power. She then raises issues about what scholars consider legitimate CPR scenarios for study but contends that, “the emergence of institutions for common-pool resource management that focus on specific marketing or other economic issues should not be marginalised simply because resource conservation is not a principal intention” (McCay, 2002, 372). Furthermore, according to Steins & Edwards (1999), care should be taken to avoid glossing over the issue of what constitutes “successful” CPR management because, “the meaning of “success” (and “failure”) is constructed differently by different stakeholders” (p.541). It cannot be presumed that particular outcomes are equally positive or negative for all individuals and groups involved, or even that these visions of “success” are mutually compatible.

In attempting to ground the empirical example of crofting common grazings in CPR theory, the biggest limitations encountered were partially in conjunction with the latter points regarding the presumption of CPR management objectives and “success”, but were also related to the aforementioned neglect of external factors, particularly with regard to market forces. In fact, very little of the recent CPR literature elaborates or explicitly examines the interrelationships between local CPRs, their outcomes, and wider market forces. When they do, it is usually with a focus on differential degrees of integration into external markets. For example, Agrawal & Yadama (1997) have examined the effects of market pressures on the functioning of CPR institutions, but the analysis is framed in such a way that only varying degrees of *articulation* with external markets are investigated. There is no consideration of the more general changes in the nature and magnitude of market forces, that are crucial for cases such as common grazings, where the CPRs have been well-integrated into external markets for many years.

Market forces are highlighted here as an important example of an external factor that can play a powerful role in influencing the basic *motivation* for CPR management, and the associated creation and sustaining of institutions. Underpinning this is an assumption that the users will only make the effort required for CPR management if there are sufficient benefits forthcoming from the resource to make it worthwhile. However, the majority of CPR literature assumes that this source of basic motivation is in place, and thus neglects to examine the complexities of how such external forces can affect CPRs. There are a handful of authors that have alluded to the fundamental importance of this motivation, but have used different terms as part of the attempt to conceptualise it. For example, Gibson & Becker (2000) identify that the local community must *highly value* the CPR in order to have an incentive to manage it sustainably, along with two other fundamental requirements of secure property rights, and the ability to create institutions for regulating resource use. In a similar vein, Gibson (2001) argues that the users’ *dependence* on the resource is one of two necessary conditions for institutional creation, the other being scarcity. Ostrom (2001) identifies *saliency* as a key attribute of CPR appropriators that increases the likelihood that self-governing associations will be formed; saliency being defined as the appropriators’ dependence on the resource system, “for a major portion of their livelihood or other important activity” (p.22).

Thus, one of the principal limitations of CPR theory with respect to common grazings is that many issues surrounding sources of motivation for CPR management (and associated investment in institutions) are far more complex and problematic than has so far been portrayed in the literature. This, coupled with the other limitations outlined above, pose a particular challenge to those who propound that the relative neglect of external factors, such as market forces, can be addressed by their inclusion in a single, coherent meta-theory of CPRs, such as Agrawal (2001).

Thus, the approach taken in this study is aligned with the second approach described above, in order to allow the following research questions to be answered:

1. What are the principal problems faced by shareholders regarding the common grazings?
2. What are the various goals for CPR management?
3. What are the opportunities and constraints associated with attempts to attain CPR goals?

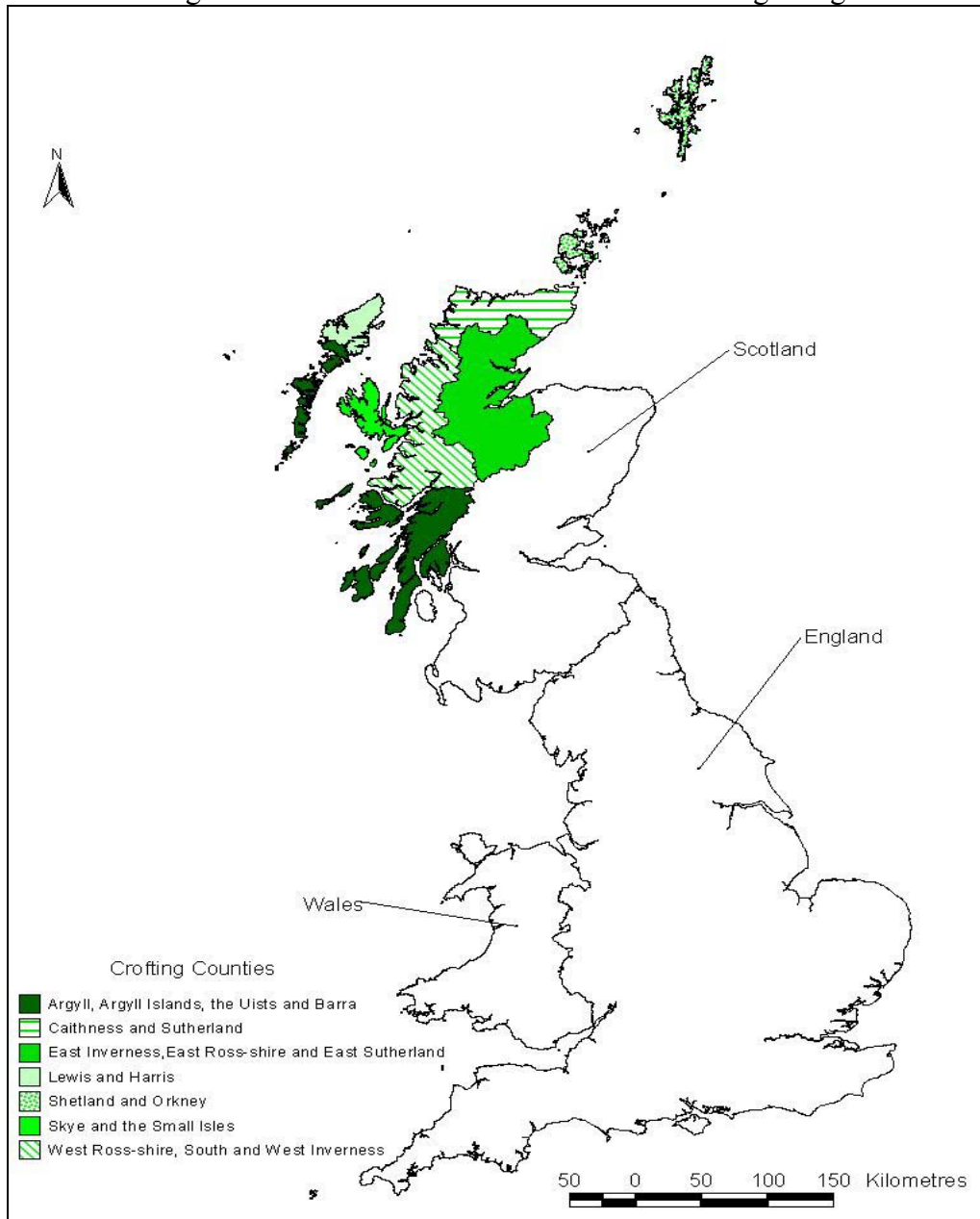
Common Grazings

Crofting common grazings are found throughout the Highlands and Islands of Scotland (see Fig.1) and constitute virtually the only example of historically enduring land-based common property regimes in Scotland.⁵ In the UK the vast majority of communal land tenure was eliminated between the 17th and 19th centuries contemporaneous with increasing industrialisation, population growth, urbanisation, expansion of the market economy (particularly regarding agricultural produce), as well as successive rounds of specific legislation (Devine, 1994). Nevertheless, in Scotland, as in England and Wales, vestiges of common land survived to the present day, although the circumstances of their survival and their legal histories are somewhat different.

These particular Scottish common grazings survived partially due to their inferior agricultural quality and remote location, but mainly due to the imposition of the Crofters Holdings (Scotland) Act in 1886, which effectively ‘fossilised’ the basic pattern of land tenure as it was at the end of the 19th century. This landmark legislation was passed as a response to the growing civil unrest caused by years of eviction, resettlement in poorer quality areas, emigration and famine, and conferred onto crofters a set of rights unavailable to any other kind of tenant farmer in the UK, crucially including security of tenure and fair rent (Hunter, 1976; Devine, 1988). In effect, this Act created the crofting system: a unique form of land tenure found only in the Highlands and Islands of Scotland, made up of ‘Townships’ (villages) that include a number of small individually held agricultural plots and associated areas of common grazings. Interestingly, the crofting system has never been a 100% subsistence system and has always required supplementation from ancillary employment, or other income source.

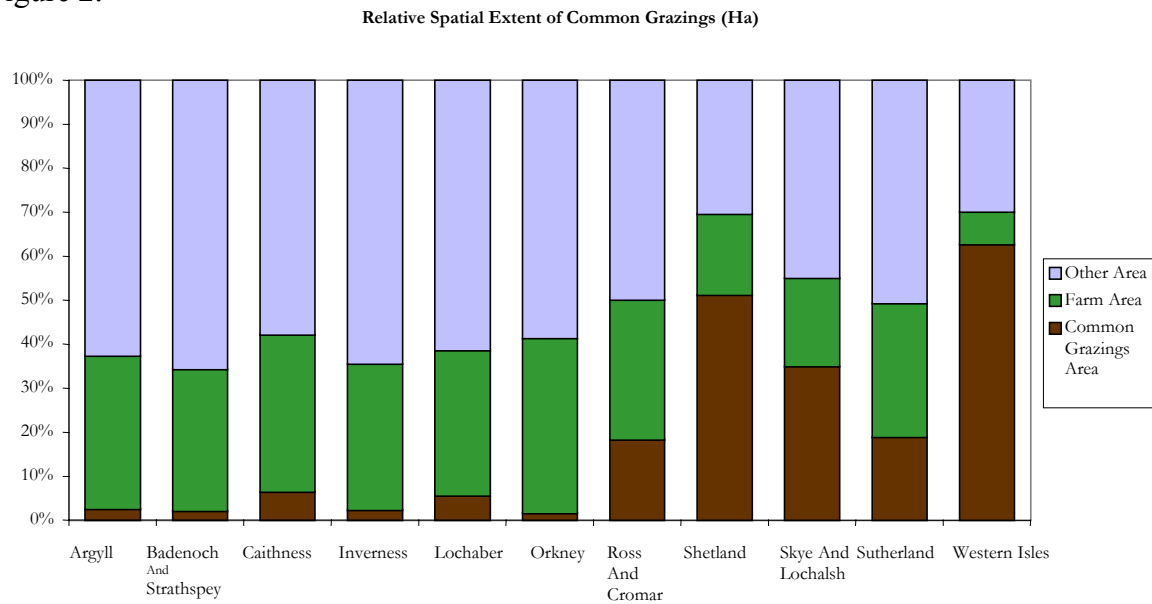
⁵ With the exception of some village greens and the commonity of Birse.

Figure 1: The Crofting Counties of Scotland – location of common grazings



Currently, there are over 800 common grazings ‘units’ covering nearly 5,000 square kilometres, which is roughly 12% of the area of the Highlands and Islands. These CPRs are more prevalent in some counties than others, for example, covering less than 20% of any mainland county but accounting for over 50% of land area in the Shetland Isles and the Western Isles (see fig.2). In overall terms, the land cover of the common grazings is predominantly (95.8%) ‘rough grazings’, principally of heather moorland, 2.4% is ‘improved’ grazing, 1.7% is woodland, and 0.1% is arable land. However, the exact proportions of each land cover can vary greatly in individual cases. The average size of a common grazings ‘unit’ (which in practice can be more than one parcel) is 827.4 Ha, but can vary enormously from as little as 10 Ha to as much as 10,550 Ha.

Figure 2.



The principal land use is the grazing of livestock, although most common grazings could be fairly described as multiple-use commons. Sheep are by far the most common livestock type, but cattle and horses can also be found in a smaller number of cases. Other activities occurring on common grazings include peat cutting for fuel, sport shooting and fishing, recreational use such as hill-walking and climbing, conservation management, and forestry. The latter is not an activity traditionally associated with crofting, but the area of common grazings being used for forestry has proliferated in the last decade, largely as a response to a change in the law clarifying the rights to timber, and also to the favourable situation with respect to EU grants for planting and regeneration. In a limited number of cases land has been resumed for developments such as houses, public works, power generation and communal facilities, such as storage sheds or sports grounds, but this the exception rather than the rule.

In the basic crofting model there are three main user-groups that can be identified in relation to common grazings, linking closely to the configuration of rights held over the resource. First, there are the shareholders who hold rights to the common grazings in association with the tenancy of individually-held crofts, essentially allowing them to graze livestock, cut peat, and collect seaweed (and plant trees if consented by landlord and government agencies). Shareholders are also entitled to 50% of any development value coming from the common grazings, but in most cases this is merely academic as little development actually occurs. Second, there is the landlord who has title to the land, and holds the sporting rights (which are often sub-let to clients) and mineral rights, as well as the right to the other 50% of any development value. In addition, the landlord has the veto on any forestry and development-related decisions. Third, there are leisure or recreational users who arguably do not hold any formal rights over the common grazings other than the notoriously ambiguous, perceived 'right to roam', affording them access to walk over the land. However, recreational use in most these areas is of low intensity, so as long as dogs are kept on leads and deer stalking is not disturbed there is little opposition from the other user-groups.

The formal institutional arrangements for the regulation and management of the common grazings exist on a number of levels. At the constitutional level there are several acts of parliament that serve as the fundamental framework for the crofting system; defining the

legal rights and responsibilities, providing for a quasi-governmental body devoted solely to the development and regulation of crofting (the Crofters Commission), and substantiate locally-set rules. At the operational level, there is a Grazings Clerk who, on a voluntary basis, is responsible for administrative duties, and also a Grazings Committee who have statutory powers and duties with respect to the management, maintenance and improvement of the resource (MacCuish & Flynn, 1990). Most grazings have a set of regulations dealing with aspects of stock management and resource maintenance, which when endorsed by the Crofters Commission, become legally binding. The precise content of the regulations depends largely on local circumstances but they are obliged to cover, amongst other things, the 'quota' of stock that each shareholder can graze.

In recent decades there has been an increasing crisis in the wider system of crofting including problems of an ageing population, areas of general depopulation, insecure supplementary employment opportunities, in-migration of people who are often retirees and/or of a different socio-cultural background, and weakening social cohesion. At the same time, sheep production, which over the years has come to form the central focus of crofting agriculture, has been experiencing dwindling revenues due to changes in the EU Common Agricultural Policy (CAP) and weak market prices. Since common grazings are an integral element of the crofting system, there have naturally been far-reaching implications for patterns of land use and CPR management.

There are two related reasons why crofting common grazings are worthy of attention from CPR scholars. The first is that despite a general decline in the importance and use of common grazings, the users in some townships have managed to resist the trend towards moribund CPR institutions. Thus, it would be very interesting to establish why there are differential levels of salience and related outcomes. The second reason is that common property regimes have been identified by the Government as a potential vehicle for rural development. This is evidenced most strongly in proposed legislation that is currently going through the Scottish Parliament concerning a community right-to-buy. This is intended to facilitate an increase in the community ownership of land, particularly in the Highlands and Islands. However, despite this interest, there has been little research to demonstrate this supposed link between common property regimes and positive rural development outcomes in a Scottish context. Therefore, it would be of great utility to investigate the circumstances, vicissitudes and outcomes of existing common property regimes to identify any lessons that can be learnt.

Methodology

Very little data existed previously for most aspects of the common grazings, so it was necessary to undertake fieldwork to gather the information required to address the study questions. A survey was conducted in two stages. In the first stage, a postal questionnaire was sent out to the entire population of Grazings Clerks (767 in all) in order to collect some baseline information and to scope for pertinent issues. 376 useable replies were received, constituting a favourable response rate of 49%. The second stage involved the more detailed investigation of 12 in-depth case studies, which were selected to represent 'dynamic' and 'moribund' CPRs at three levels of economic activity. For each case study, a number of face-to-face semi-structured interviews were carried out, and including where possible the Grazings Clerk, another Grazings Committee member, active shareholders, non-active shareholders, and the owner or factor (the owner's representative land manager). The

objective was to encounter as many different perspectives as possible from those holding rights to the resource. Both the postal questionnaire and the interview template were designed to procure information on both the attributes identified as important in CPR theory, as well as the issues that the informants themselves believed to be important. Therefore, there was a mixture of qualitative and quantitative, closed and open-ended questions.

Key Problems of Common Grazings: the alternative ‘tragedy’

It was universally recognised by the informants that the principal problem facing crofting common grazings is not the overexploitation of the resource, but declining salience and use; specifically a decrease in the level or intensity of CPR use, as well as a decrease in the number of shareholders using or involved with the resource. Moreover, this decline is not a new phenomenon in most CPRs, but is widely thought to have been accelerated by the ailing fortunes of the market for sheep-products and changing policy conditions, as well as the lack of young people coming through to replace retiring crofters.

Many of the shareholders interviewed confirmed that, formerly, the common grazings shares were very much in demand and it was rare to have unused shares or non-using shareholders. Currently, however, the postal questionnaire results show that on average 76% of grazing shares are actually used, and that the average proportion of shareholders that use the CPR is 75%. To give a more concrete illustration, the average number of users is 7, whilst the average number of shareholders is 28. Furthermore, the current average number of users is only 78% of the number of shareholders using the resource 10 years ago. Neither is it just use for grazing that is in decline; peat-cutting, once a feature of virtually all CPRs, now only takes place in 40% of cases.

Naturally, there has been a commensurate decline in the proportion of the township’s income that comes from crofting. Table 1 shows that on average only 8% of township income comes from the use of croft land (both traditional and non-traditional), when at one time it could be as much as 40-50%. It should be noted that this figure is for crofting in general and it is important to highlight that many users stop putting stock on the common grazings but continue to keep them on their individual plots, usually due to either old age, time constraints from off-croft employment, or use of ‘softer’ breeds that generate higher returns. Thus, the percentage of cases where the principal income came from the common grazings would be lower than the figures in the table for ‘croft land’. Similarly, employment as a result of CPR use only occurred in 14% of cases, and was virtually always of a part-time or temporary nature.

Table 1: Sources of Township Income

INCOME SOURCE	Average % of township income
Working away from home	45
Social payments	41
Home-based employment not using croft land	6
Traditional use of croft land	5
Non-traditional use of croft land	3

Nevertheless, the extent and rate of decline can vary greatly between individual cases. 9% of CPRs are in a situation of *de facto* privatisation with only one active shareholder, 12% of CPRs tending towards *de facto* privatisation, with only two active shareholders, and 7% of

CPRs have effectively been abandoned completely, with no shareholders grazing stock at all. This means that at least 28% of CPRs are in a critical state of decline. Furthermore, many of the CPRs that currently have more reasonable levels of use and active users, are still in a fragile position where most of the users are very old, and will soon be unable to play an active role in CPR management. Consequently, it is likely that over the next 5-10 years, the percentage of CPRs that are in a critical state of decline will probably increase.

However, not all cases were of low or declining salience and value, particularly if value is seen in terms of being more multi-faceted in nature and including intangible as well as tangible phenomena. Indeed, there were a minority of cases that bucked the general trend of decline and actually demonstrated many signs of vibrancy, such as high rates of use and users, high rates of co-operation and successfully initiated and completed CPR-related schemes and projects. The second stage of the survey process was used to compare case studies of these ‘dynamic’ CPRs with case studies of the more frequently found ‘moribund’ CPRs (see Table 2).

Table 2: Comparison of use of shares

CPR		Dynamic	Moribund
Average:	Proportion of Shares Used	0.71	0.50
	Number of Users	5	3
	Proportion of Shareholders Active	0.39	0.32

The second survey backed up the postal questionnaire results with further evidence for a general trend of decline, but shed more light on the CPRs that did not conform to the trend. As can be seen in Table 3, for ‘moribund’ CPRs the overwhelming trend for both number of users and intensity of use is a general decrease, or stability at a very low level. Conversely, in most ‘dynamic’ cases, the intensity of use and the number of active shareholders was actually increasing, predominantly because those CPRs had already experienced a moderate decline and have now taken action to regenerate interest and benefit flows from the CPR.

Table 3: Trends in the use of common grazings (↑= increasing, ↓=decreasing, ↔=stable)

		LEVEL OF ECONOMIC ACTIVITY			
CPR	Trend	high	moderate	low	Overall
dynamic	No. of shareholders using CPR	↓	↑	↑	↑
	Intensity of CPR use	↑	↑	↑	↑
moribund	No. of shareholders using CPR	↓	↓	↓	↓
	Intensity of CPR use	↓	↔	↓	↓
Overall no. of shareholders using CPR		↓	↓	↓	↓
Overall intensity of CPR use		↓	↓	↓	↓

With an increase in use there was an associated higher proportion of income coming from crofting activities. In dynamic CPRs an average of 18% of shareholders’ income came from crofting activity, whereas only 7% came from crofting in the ‘moribund’ CPRs. However, it was important to try to gauge the importance of the CPRs in more than narrow financial terms. Thus, Table 4 below shows how different types of CPR were rated on average by the shareholders. In overall terms, the ‘dynamic’ CPRs rated the resource as ‘important’, whereas the ‘moribund’ CPRs rated them as only ‘slightly important’. However, in both kinds of CPR, the social importance was often rated at a lower level than the economic importance, which was surprising. One explanation is that in the latter stages of decline most

CPRs are still economically important to one, two or perhaps three shareholders, which was acknowledged by the interviewees, but by which time the social aspect of the common grazings has usually tailed off.

Table 4: Perceived economic and social importance of the common grazings

		ECONOMIC ACTIVITY			
CPR		high	moderate	low	Overall
dynamic	STATED ECONOMIC IMPORTANCE	important	very important	important	important
	STATED SOCIAL IMPORTANCE	important	slightly important	slightly important	important
moribund	STATED ECONOMIC IMPORTANCE	slightly important	important	slightly important	slightly important
	STATED SOCIAL IMPORTANCE	not important at all	slightly important	slightly important	slightly important

The key reasons for declining use and salience given by those holding rights to the common grazings are displayed in Table 5. It should be noted that apart from the ‘number of users’ which is ranked 6th as an explanatory factor, there were no mentions of the kinds of conditions or attributes that feature in CPR theory. Since the theory assumes high salience, many supposedly important factors such as the enforcement of regulations are of relatively low priority and add little to the comprehension of this empirical scenario.

Table 5: Stated reasons for the decreasing use of common grazings in order of importance

<i>Rank</i>	<i>Reason</i>
1	age of population
2	decreasing returns from agriculture
3	lack of time/flexibility due to off-croft work
4	increased concentration of effort on inbye
5	increased individualism
6	decrease in the number of active shareholders
7	imbalance in croft enterprise sizes
8	use of contractors
8	mechanisation

Thus, it can be seen that certain preconditions of motivation to manage CPRs and invest in institutions are generally not met in this empirical context. These preconditions are users’ dependence on the resource, and also salience and value of the resource to users, if conceived of in narrow economic terms. Indeed, in applying these conceptions to common grazings, it was found that ‘dependence’ is not particularly useful, as it is possible to be highly motivated to manage a CPR without it being a major contributor to one’s livelihood. ‘Salience’ is more useful as Ostrom (2001) mentions, albeit briefly, that the appropriators’ could depend on the resource for an ‘*other important activity*’ (emphasis added), which explicitly allows for the possibility that CPRs can be of value to users in other, less tangible ways. ‘Value’ is also useful, as it allows the broadest conception of the three terms, but is often portrayed

simplistically. This will be discussed further in the next section, where the ways in which the problems of declining salience and use influence the objectives set for management are explored.

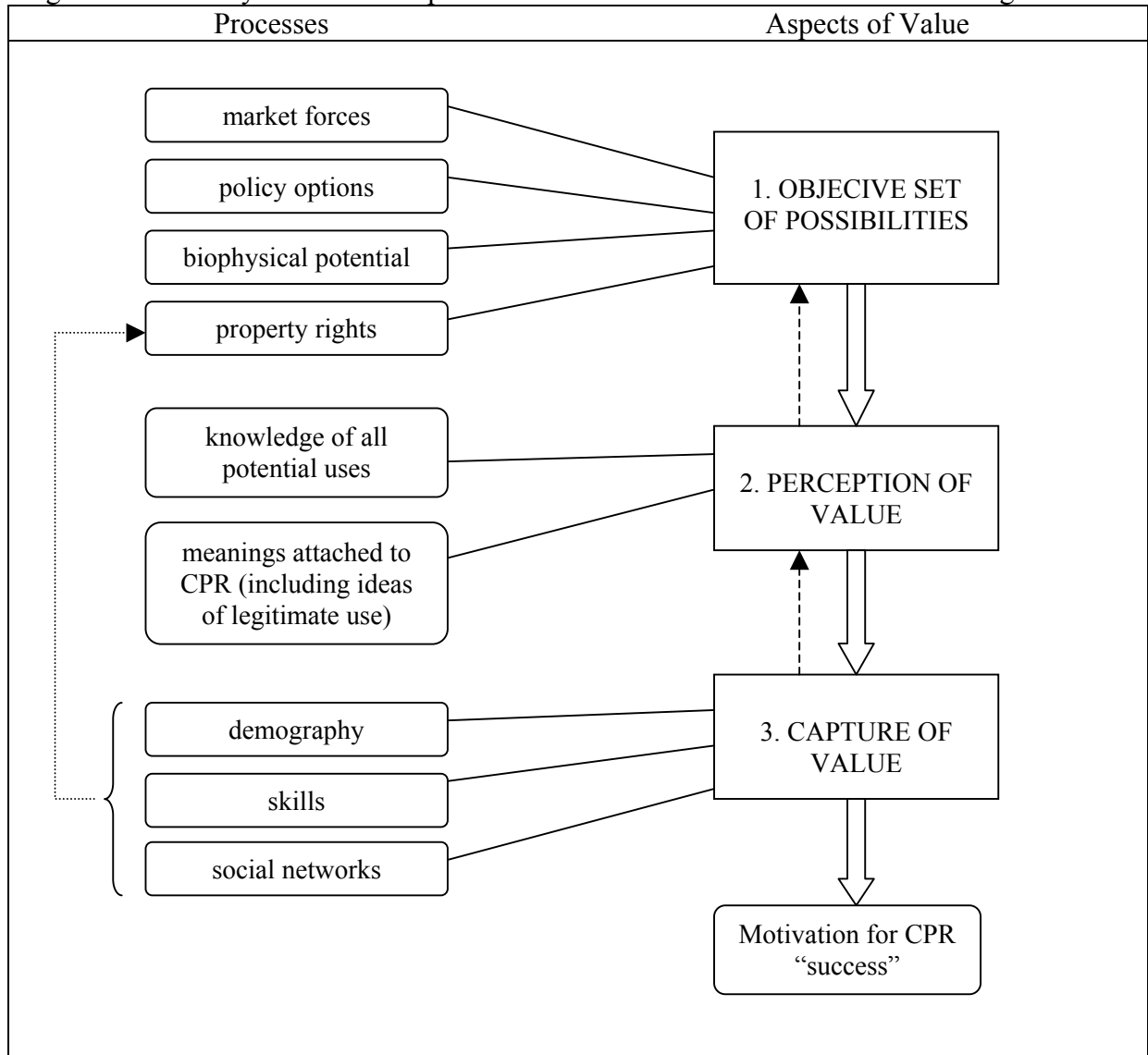
The Goals of Crofting Common Grazings Management

Overall, the survey responses strongly suggest that the principal goal for common grazings management is resource revalorization, not resource conservation. Furthermore, the findings highlighted the complexity of the revalorization process. Figure 3 is an attempt to present three of the key elements involved: the presence of an objective set of possibilities for CPR-related benefit flows; the perception of value in these possibilities; and, the capture of the perceived value. It must be stressed that the aim of the diagram is not to suggest that these are the only factors involved, nor that there is a simple linear process at work, as in fact there are likely to be considerable interrelationships and interactions between the key elements highlighted, as well as other factors. Rather it is an analytical strategy to illustrate various dimensions of the relationship between salience/value and the motivation for CPR management, to highlight the dominant elements in this particular empirical case, and draw particular attention to the second and third elements, which are often neglected or glossed over in CPR studies.

a) objective set of possibilities

In the first instance, revalorization is largely a product of the post-productivist context in which common grazings are situated, which is changing the objective set of possibilities for rural resources to provide benefit streams (see Step 1 in Fig. 3). Former sources of gain, such as profit from the sale of lambs and EU CAP subsidies, are waning, whilst new opportunities arise in relation to recreational pursuits, tourism, multi-purpose forestry, renewable energy, and environmental goods such as biodiversity, to name but a few.

Figure 3: Three key elements that provide motivation for the achievement of CPR goals



b) perception of value

However, the objective possibility of CPR-related benefit streams may be necessary, but it is not sufficient, for generating motivation for CPR management. The value of these potential benefit streams must also be perceived as such by those who have the rights to capture them (see Step 2 in Fig.3). This matter is greatly complicated by the observation that different shareholders attach different meanings and values to the common grazings, and thus have different ideas of what constitutes “success” or a legitimate goal as regards their management. An illustration of the kinds of meanings, values and goals associated with the common grazings, as well as a rough gauge of their concurrency is given below.

When discussing what the shareholders considered their core objectives for CPR management, the central message echoed by most interviewees conveyed their basic desire to see the resource being *used*. Similarly, most people felt the ultimate “failure” or “tragedy” would be the abandonment of the resource. However, it quickly became clear that different people had different ideas about what constitutes a legitimate or desirable use. For a small minority, the term was meant in the broadest sense referring to any kind of use by anybody

who was willing to invest in the CPR. Nevertheless, most people had more specific priorities for management, some regarding the nature of use and some relating to the distribution of the benefits of use.

The most strongly opinionated shareholders stressed that the CPR should be used for livestock grazing, and particularly sheep grazing, and implied that any other activities were not really considered to be ‘using’ the resource at all. For example, in a number of cases, cattle rearing would reluctantly be considered, power generation would be accepted as long as there was no interference with sheep, and forestry would be an absolute last resort. Many of these individuals were explicit about the link between their identity and CPR use, as by way of explanation they often expressed, “we are sheep-men” (as most of the active shareholders were men) or similar, to emphasise how deeply ingrained the traditional crofting activity of sheep-rearing was, even in the face of superior financial returns from alternative activities⁶. However, the majority of interviewees, although preferring the main use of the CPR to be for livestock grazing, were still open to any use that would enable crofters to benefit from the CPR.

Two main views regarding the distribution of CPR benefits could be identified. Some people had no objections to CPR use by a small proportion of the shareholders, particularly when compared to no use at all. In fact, it could be argued that some of the ‘inactive’ shareholders derived vicarious utility from seeing the ‘active’ shareholders use the CPR. Others, however, felt more strongly that the CPR is a resource for all the community, and should be managed in the community interest. In some cases, this was encapsulated into a type of social norm, which favoured the execution of projects that favoured the broadest distribution of CPR benefits, at the expense of projects that would have benefited a sub-group of shareholders to a greater degree. Moreover, it is possible that the distributional aspect holds the greatest potential for intra-shareholder conflict, as the interests of a small number of enduring graziers could be incommensurate with the overall interest of the (predominantly ‘non-active’) shareholders, who would gain more from a different kind of use, such as forestry. This scenario was witnessed in a handful of cases where non-active shareholders wanted to initiate a forestry project in order to reap benefits from the CPR, including the benefit of their continued involvement. In fact, it was sometimes implied that there was intrinsic value in co-operation, as many shareholders did not seem to mind too much if their project made any money as long as it brought people together and ensured their involvement in the CPR.

In the responses gathered from both surveys there were very few mentions of preventing environmental degradation as the chief concern of CPR management. If it was mentioned at all, ironically, it was to lament the degradation that can occur from serious under-use in terms of habitat loss and reduced biodiversity. However, there were some individuals who wanted to see the CPRs managed actively for conservation enhancement, but for its intrinsic value, rather than as a ‘side-effect’ from its capacity to provide a sustainable stream of tangible resource-units.

Interestingly, common grazings “success” in the eyes of the landlord (or his representative) was the most likely to concern the sustainability of resource-unit flows, in terms of deer or fish for their sporting value⁷. There is evidence to suggest that this concern does not extend

⁶ Interestingly, however, throughout most of crofting history the tradition was actually based on a thoroughly pluri-active model and sheep-production has only become the focus of crofting activity in recent decades, with the construction crofting identity being altered accordingly.

⁷ NB recall that these particular benefit streams are held under private property rights.

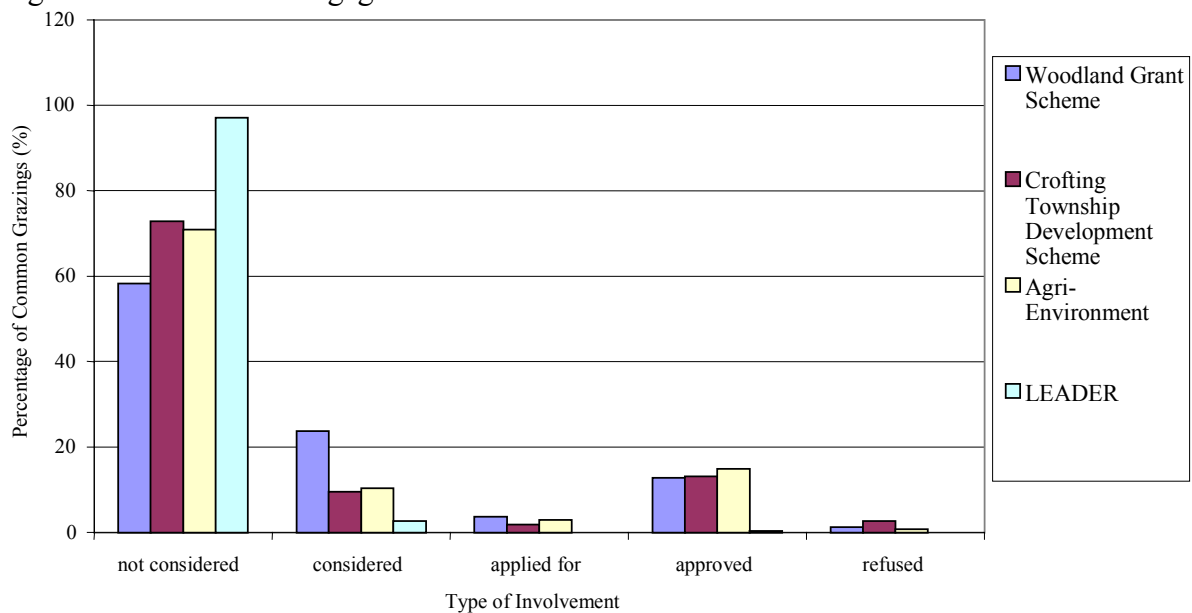
to sustainability of the resource stock, as estates in Scotland have been criticised for encouraging excessive grazing pressure from insufficiently controlled deer populations. The complexity of such situations is aptly illustrated by the fact that a deer population on a common grazings is, in effect, a CPR overlapping a CPR, as deer are legally the property of no-one until actually killed. It is acknowledged that there are likely to be other parties not mentioned that have an interest in common grazings, and thus, ideas about the goals for CPR management. However, this study was not of sufficient scope to capture these additional perspectives, but it is intended to address this in future research.

c) capture of value

Although the availability of an objective set of possibilities and the perception of their value are both necessary for the motivation of CPR management, they are still not sufficient. Users still require the third crucial element to be in place, in which the users capture at least some of the value perceived from the possibilities, and thus benefit streams are produced. This is made all the more problematic by the variety of meanings, values and goals that shareholders often have with respect to the CPR, which are not necessarily always in harmony. In such cases, the different meanings are explicitly or implicitly contested within the actions and discourse of the shareholders. Sometimes, one ‘vision’ of the CPR will predominate (e.g. that tree planting is a good idea, or that sheep grazing is the only ‘proper’ use for it) and that will set reasonably clear parameters for the value that can legitimately be captured. However, sometimes a clear ‘vision’ fails to prevail and that is often when stagnation of CPR management can develop. It must be emphasised that the process by which a particular ‘view’ predominates is not necessarily ‘fair’ or even democratically decided.

Human capital and social networks become critical with respect to the capture of value. This is because they can influence the ability of the group to establish common goals, and the ease with which they do so, as well as the capacity of the group to facilitate the action necessary to achieve their goals and capture the associated value. This can be illustrated with respect to entry into schemes, such as those that secure grants for forestry activities. Figure 4 shows the various levels of common grazings involvement with four of the most relevant schemes.

Figure 4: CPR-related Engagement with Schemes



Continuing with forestry as an example and working through the steps in the diagram, the related policy options influence the objective set of possibilities by making it more financially attractive to plant trees or encourage natural regeneration. The shareholders' rights to the future benefits of the timber also shape the incentives faced in Step 1. However, before shareholders can begin to take advantage of this opportunity, they must both know about these forestry grants and also perceive forestry as a legitimate and desirable use of the CPR (Step 2). The former is rarely a constraint as forestry has been well publicised by the Crofters' Commission. However, the latter can be problematic as sometimes the shareholders do not view forestry as desirable, sometimes for practical reasons such as the future difficulty of reclaiming the land for agriculture, and sometimes for symbolic reasons such as the supplanting of more 'traditional' land uses. Furthermore, if views amongst the shareholders of a CPR differ, the outcome of step 2 depends on which view predominates as the most legitimate. This is decided more democratically in some cases than others, and can be influenced by aspects associated with Step 3 such as leadership skills. Importantly, the more intangible aspects of forestry projects such as the ability to work together to use the CPR were often perceived as valuable, as well as the financial gain from the grants.

Once a forestry scheme has become established as an objective for the CPR, its achievement must be facilitated by securing the money and co-ordinating the associated commitments, such as ordering the necessary equipment and organising either shareholders or contractors to carry out the necessary labour for both the initiation and operation of the project. This was influenced by three key factors (see Step 3). First, if the shareholders were predominantly older crofters they often had higher discount rates and were less able to contribute labour, this served as a constraint (demography). Second, the process was aided greatly by people who had experience of filling in forms and knowing how best to present the application, as well as leadership skills (skills). Third, the nature of social networks, whether horizontal or vertical, formal or informal, also played a key role. It seemed there had to be a balance between the group containing individuals who were vertically networked to policy and business contacts, and the group itself being horizontally networked to allow the necessary co-operation in matters such as the distribution of labour duties and other related costs and benefits. These three factors, thus, played a large part in determining whether or not the perceived value would actually be captured, and therefore whether there was sufficient motivation to manage the CPR for these aims. Referring back to Figure 4, it is possible to see that only a small proportion of CPRs (15%) actually managed to reach the 'approved' stage of the Woodland Grant Scheme and capture this particular aspect of CPR value. Nearly 60% of common grazings do not even reach Step 2 of the diagram as they do not even consider entry into the scheme.

Overall, the evidence suggests that a fundamental condition of CPR "success", however it is defined, is the *motivation* to manage the resource for the achievement of these particular goals. This in itself is not a novel concept, although in most studies it is often assumed to be in place. However, this 'condition' is not the shareholders' 'dependence' on the resource as suggested Gibson (2001), nor is it merely the broader notion of being 'high valued' by the shareholders as suggested by Gibson & Becker (2000). As the case of crofting common grazings shows, 'dependence' is not necessary and 'high value' is necessary but not sufficient. The additional crucial element is that the shareholders must be able to *capture* this value, and in other words, secure for themselves the benefit streams from the CPR. 'Salience' could then be the most useful term to convey this source of motivation, as it conveys a broader economic notion of value than 'dependence', but also implies more of a 'realised' or 'realisable' value than 'value' on its own. However, this aspect of motivation

for CPR management is conceived, the fact remains that the matter has been overlooked or grossly simplified in much of the literature, where it is portrayed as a simple matter of having secure property rights and institutions that can regulate the stock and flow aspects of the resource. This empirical context highlights how this conception ignores many complex socio-cultural, political, and historical factors that influence:

- a) the diversity of tangible and intangible benefits that CPRs can provide
- b) the possible incommensurability of the simultaneous provision of all desired benefits
- c) the possible interactions between the different elements (e.g. between sets of possibilities, perceived value and captured value).

Summary & Conclusions

This paper elaborated a number of findings from an empirical investigation of crofting common grazings, a set of CPRs found throughout the Highlands and Islands of Scotland. It was found that the core problem associated with these common grazings is declining use, not over-use, as frequently described in CPR literature. Furthermore, some of the basic preconditions frequently assumed in CPR theory of dependence, salience or high value are not met in post-productivist CPR situations in the Highlands and Islands of Scotland. As a consequence, the predominant goal for common grazings management involves capturing the contemporary value of the CPR, not preventing its degradation. Moreover, the capture of contemporary value is complicated by two important phenomena. Firstly, the objective set of possibilities changes in response to the broader forces of post-productivist rural change. Secondly, there is evidence that different shareholders attach different meanings to the common grazings and that this influences both the nature and commensurability of their respective perceptions of value.

These findings have implications for the utility of dominant CPR theory in specific empirical settings, as they provide examples of CPRs for which some of the more fundamental assumptions made in the theory do not hold. In addition, they underline the failure of CPR theory to engage more fully important aspects of the contexts in which CPRs such as common grazings are embedded, particularly regarding the interrelationships between internal factors and external factors that influence the availability, perception and capture of value from the CPR. The main conclusions will be outlined in turn.

Firstly, it can be unhelpful to assume that users are dependent on a CPR. As the empirical example demonstrated, the overall dependence of users on crofting common grazings is low, but there is still a legitimate need for these CPRs to be understood. Indeed, it should not be assumed that dependence is a pre-requisite for CPR “success” as some crofting common grazings users have achieved many of their goals whilst having a low dependence on the resource.

Secondly, in trying to account for the basic motivation for CPR management, it is more useful to conceptualise it in terms of the salience or value of the CPR to users, rather than as dependence. However, rather than conceive of value in the unproblematic, and often simplistic way portrayed in much of the literature, it is more fruitful to take a sophisticated approach that accounts for a) the multifaceted nature of value, b) the variety of meanings and values attached to CPRs, both within and between cases, c) the need to capture value, as well as perceive its availability, and, d) the possibility of changing values over time.

Thirdly, it can be potentially misleading to make *a priori* assumptions about the primary goals of CPR management, and likewise, the reasons for wanting sustainable institutions. The CPR literature frequently assumes that the main objective for CPRs is the conservation of a resource that tends to over-exploitation. However, there are many different kinds of ‘tragedy’ that can befall the commons. Crofting common grazings provide a number of examples where the chief concern is not resource conservation but resource re-valorisation. This may not be the traditional interest of CPR scholars, but constitutes a valid topic of study nonetheless.

Fourthly, in highlighting CPRs in empirical settings that current CPR theory cannot fully account for, this paper has identified a number of limitations associated with some of the assumptions frequently made in CPR theorising. Furthermore, illustrating the extent to which CPRs can vary in terms of fundamental aspects, such as their value, calls into question whether the construction of a single, coherent meta-theory of common-pool resources is a) possible, and b) a useful approach to elucidating CPRs in empirical settings. Instead an approach is required that not only recognises, but explicitly takes into account, the way in which internal CPR factors are embedded in broader historical, socio-cultural, political and institutional contexts that are constantly changing.

Lastly, it is possible that these findings have the greatest relevance and validity in a developed country context, where the major changes in the kinds of goods and services being demanded of rural areas have shifted the emphasis from primary production to the consumption of an increasingly diverse range of often less tangible ‘commodities’, such as amenity, biodiversity and heritage. It is important for the future understanding of real-life CPRs that theoretical work concerning commons issues is developed to be of greater utility in this type of context as well as more ‘traditional’ tragedy scenarios.

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