

# Reducing consumption through communal living

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## Abstract

This paper examines ways consumers and communities can voluntarily adopt a low consumption (or low carbon) lifestyle, often termed 'voluntary simplicity' or a policy of 'sufficiency'. There is an increasing academic literature within Europe in the last five years on the whole question of 'sustainable consumption', and the relationship between income levels and consumption particularly at the household. This debate has moved beyond 'green consumerism' to look at building 'new concepts of prosperity' through local community actions, or reducing working time to allow more time for the creation of social capital. The paper will concentrate on one aspect of the quest for sustainable communities, the relevance of communal living to reducing consumption through examining energy consumption (both direct and indirect) in one such community in the UK. The results from this preliminary study reveal that it is not the sharing of resources that reduces consumption but the mutual reinforcement of attitudes towards a low consumption lifestyle. Thus it is the creation of social capital in a community that is its key to its ecological lifestyle.

## Introduction

The destruction of natural capital is often blamed on the excessive consumption of energy and resources by the wealthiest countries in the world, and we are urged to turn away from this 'self-destructive path' (Wollard 2000: 6). We are in-

stead urged to adopt new lifestyles based on lower consumption in caring communities marked by social cohesion, mutual aid and trust (Trainer 1995). The aim of these communities is to protect natural capital by focusing on building up social capital rather than physical capital, through the application of civic society theory (Carr 2000). However in our consumer society, many people are unwilling or unconvinced that they should curtail their consumption for the sake of preserving natural capital (or the environment). All too often people associate greater income (and consumption) with increased happiness and health, even though there is no link between the two above a certain level. Thus a healthy and sustainable society may be possible at relatively modest income levels, as William Rees points out (2000: 44) even without any dramatic restructuring of society or social relationships. Moreover there does exist a small minority of people in affluent countries who are willing to practice 'voluntary simplicity' (see such web sites as The Simple Living Network).

Politicians and policy makers are very wary, however, of advocating reduced consumption as a means of limiting environmental damage. Instead they advocate mainly technical measures to reduce harmful emissions, while still allowing for increased economic growth (and hence increased consumption). One technical measure is increased energy efficiency, where it is hoped that (national) energy consumption will be reduced through a policy of increasing the energy efficiency of consumers. The effectiveness of this policy is however heavily criticized by economists and this author (Herring 1999; 2000). If consumption (and its consequent emissions) cannot be curtailed through efficiency, then alternative policies are substitution or reduced con-

sumption. For energy, this means moving to non fossil fuels, like renewable energy, which although having a large technical potential are currently more expensive than fossil fuels, particularly gas. Their uptake currently depends on altruistic consumers, willing to pay a voluntary 'green' premium, or on price surcharges and taxation to support subsidies, usually coupled with regulatory mechanisms to stimulate development. So far, in the UK, the latter approach has had much the largest impact in terms of resultant generation capacity (Elliott 2002).

### CHANGING CONSUMER LIFESTYLES

Green analysts argue that sustainable economic growth requires fundamental changes in consumer lifestyles and preferences, and that consumers and communities should voluntarily adopt a low consumption (or low carbon) lifestyle, often termed 'voluntary simplicity' or a policy of 'sufficiency' (Sachs 1988; Trainer 1995; Ekins 2000). There is an increasing academic literature in the last five years on the whole question of 'sustainable consumption', and the relationship between income levels and consumption particularly at the household level (Noorman & Uiterkamp 1998; Gatersleben 2001). This debate has moved beyond 'green consumerism' to look at what the Oxford moralist Laurie Michaelis (2002) terms building 'new concepts of prosperity' through local community actions, or reducing working time to allow more time for the creation of social capital (Sanne 2002). It has also attracted the attention of international agencies such as the OECD (2002), the UNEP (2001), and the European Commission (Heap & Kent 2000).

The first step can be the provision of simple assessment tools so that consumers can understand the impacts of their consumption. Existing tools such as 'Eco-cal', a computer-based questionnaire on household consumption, and the 'Holiday Footprinting' tool developed by the consultants Best Foot Forward, can be linked to mitigating action, such as the purchase of renewable energy or the planting of trees. The aim should be to make all big consumption choices-like travelling by plane- carbon neutral. A second step could be the provision of education, either informally in the local community or formally through distance teaching methods (such as offered by the Open University in the UK). What is to be avoided is student travel (by car) to a place of education, for that is the most energy intensive part of higher education (Herring & Roy 2002).

The third step can be the encouragement of innovative social experiments or ecological lifestyles, with the aim of a high quality of life but low consumption. This creation of new ways of living and working cooperatively can be part of the aim of 'greening' existing communities and cities, which is of important concern to a wide range of actors, ranging from British environmentalists like Herbert Girardet (1999), to the UK Government (2002) and European agencies, such as the European Foundation for the Improvement of Living & Working Conditions (1999).

### Communal living

Communal living – varying from the small urban commune to the large rural community – has been put forward as an important component of a low consumption lifestyle (Melt-

zer 1998; Metcalf 2000). The rationale behind it being that the shared use of facilities will result in a lower per capita use of energy and resources. This claim is backed up by surveys (dating from the 1970s and 1980s) that show that per capita energy use by people living communally is lower than the national average (Corr & MacLeod 1972; Trainer 1984; deGryse 1985). However, these studies do not correct for income effects. People living in the survey communities were generally young adults and/or students with below average income. Thus it is not surprising that they had below average consumption, as it has been well demonstrated from surveys of household energy consumption that energy and resource use is closely linked to income (Noorman and Uiterkamp 1998).

This paper presents preliminary results from a study by the author (in 2001) where he tested the hypothesis that communal living saves energy, i.e. that corrected for income people living in communal situations have lower per capita energy consumption than those living ordinarily. Or alternatively that those living communally spend a smaller percentage of their income on energy services. It did this using a pilot study of the energy use and income by members of an intentional community (the Redfield Community) in England and compared the results with those of conventional UK households.

### DEFINING ENERGY USE

Surveys of energy use by Dutch household (Noorman and Uiterkamp 1998) and for the European Union (Reinders et al 2003) indicate that less than half of individual energy use is in the form of direct energy purchases (electricity, gas, petrol), with the rest being in the energy content of goods and services purchased. It also shows that there are definite economies of scale with increasing household size, which result in lower energy and material use per capita. Thus it may be expected that, corrected for income, communal dwellings do have a lower per capita heating energy use. However this saving may be offset by the ownership of 'luxury' energy services, like swimming pools, saunas, hot tubs etc. which the communal living makes economically feasible.

One area where energy use may be higher is in travel. The 1970s surveys indicate a highly mobile population with a high (%) expenditure on travel for recreation, social and 'political' causes. Also many communal establishments are situated in rural areas, with poor public transport facilities, necessitating the use of private transport, generally cars. Although car sharing should be a key feature of communal life, early indications reveal that it has not been successful, due to the difficulty in co-ordinating school, work and leisure trips in our society which requires flexible lifestyle patterns. Thus rural communal life may require a far higher energy use for travel, due to its isolation than conventional life in urban areas. Furthermore communal living means being part of a large social network, with ample opportunities for national and international travel.

### IS THE ENERGY SAVING 'CULTURAL' RATHER THAN 'PHYSICAL'

One hypothesis I would like to put forward is that communal living acts as a brake on individualist material aspirations, and the communal ethos makes its inhabitants

voluntarily accept a lower income, which (indirectly) reduces their energy consumption. Thus communal living is an income reducing, rather than an energy reducing, arrangement. Thus I expect overall for people living communally to have a lower than average income; they are prepared to sacrifice income for social benefits. However it could be argued that they live communally because they have a below average income, and that the only way to achieve a better 'standard of living' is through shared facilities; they are prepared to sacrifice individual benefits (autonomy, privacy etc) for income.

If communal living is income reducing then it can be a means of energy conservation, that is voluntarily reducing energy consumption through foregoing income or practising 'voluntary simplicity' or 'downsizing'. As such it can then be considered as a solution to sustainable development, based on the idea of 'limits to growth'.

**Redfield Community**

The Redfield Community is set in one of the most prosperous areas of England. Although their average (per capita) income is just 20% below the UK average, by comparison their 'standard of living' or material consumption is far below that of their neighbours and work colleagues. Their community of about 20 people inhabits a late 19th century country house, with a floor area of about 2000 m<sup>2</sup>, set in extensive grounds.

This old and large building is difficult to heat. Gas central heating provides background heating which is supplemented by wood stoves and electric heaters in people's rooms. This results in a much higher per capita (domestic) energy use, but only a slightly higher cost per person. This is because Redfield is able to exploit its 'economy of scale' to purchase electricity and gas at a much cheaper rate than most UK households. It is also able to purchase wood locally very cheaply. Table 1 below compares the energy use and cost of (domestic) energy at Redfield compared to UK people with similar incomes (Quintile 4 from the UK Family Expenditure Survey 1998-99).

Inhabitants of Redfield each have about 90 square metres of floorspace, over twice the UK average, so while energy use per capita is over a third higher than average, energy use per unit of floor area is only half the UK average. Large rooms and low indoor temperatures are traded for small rooms with high temperatures.

**TRANSPORT USE**

Only 6 of the 15 adults at Redfield own a car. As a result there is much car sharing and use of public transport: the bus to local towns and the train or coach to nearby large cities, like London or Birmingham. Also more significantly, only 3 adults went by plane in the last year. Table 2 below compares the energy use and cost of transport at Redfield compared to UK people with similar incomes (Quintile 4 from the UK Family Expenditure Survey 1997/1999).

Petrol and bus use is about average; train use much higher due to commuting and leisure trips to cities, while air use is about half the average. While total transport energy use is 20% lower than average, total cost is average due to the high cost (per kilometre) of train travel compared to air travel. People at Redfield, unlike their UK neighbours, do not take their annual holiday overseas but prefer to visit other communities, friends and relatives within Britain. Avoiding air travel leads to large energy savings for holidays.

**TOTAL ENERGY USE**

About 9% of income at Redfield is spent on energy, very typical of people with that level of income. However total use is about 20% higher than average, due to domestic energy use being a third higher (caused by living in a very large house). Furthermore there is the energy content of the goods and services one purchases, and this is found to be closely linked to income levels – in theory the more you earn the more you purchase and hence the greater your energy consumption.

The calculation of the energy content of goods, like food, housing, appliances, and clothes, and of services like recreation, education and health is very difficult but has been attempted for the Netherlands (and for European Union – see

**Table 1: Redfield versus Average Per Capita Domestic Energy Use.**

Energy Cost, £/ week				Energy Use MJ/ week			
	Redfield	Quintile 4	Diff		Redfield	Quintile 4	Diff
Gas	£ 1.92	£ 2.16	-11%	Gas	629	486	30%
Elect	£ 3.60	£ 2.58	40%	Elect	201	129	56%
Other	£ 0.12	£ 0.33	-62%	Other	132	91	45%
<b>TOTAL</b>	<b>£ 5.65</b>	<b>£ 5.07</b>	<b>11%</b>	<b>TOTAL</b>	<b>962</b>	<b>705</b>	<b>36%</b>

Source: Redfield consumption data, 1998; Family Expenditure Survey 1998-99. Note £1 = 1.5 Euro.

**Table 2: Redfield versus Average Per Capita Transport Energy Use.**

Energy Cost, £/ week				Energy Use MJ/ week			
	Redfield	Quintile 4	Diff		Redfield	Quintile 4	Diff
Petrol	£ 3.31	£ 3.71	-11%	Petrol	164	184	-11%
Train	£ 1.36	£ 0.19	627%	Train	22	3	654%
Bus	£ 0.51	£ 0.56	-10%	Bus	13	12	10%
Air	£ 0.54	£ 1.08	-50%	Air	62	125	-50%
<b>Total</b>	<b>£ 5.71</b>	<b>£ 5.54</b>	<b>3%</b>	<b>Total</b>	<b>261</b>	<b>324</b>	<b>-19%</b>

**Table 3: Redfield v Average UK and Dutch Household Per Capita.**

Energy Use, GJ per Year

	Redfield	UK	Netherlands
Petrol	9	14	9
Heating	40	30	25
Electricity	10	7	11
Energy	59	51	45
Non-energy	42	54	50
<b>TOTAL</b>	<b>101</b>	<b>105</b>	<b>95</b>

Source: Noorman, &amp; Uiterkamp, 1998, Table 3.1 for 2.45 person per household in the Netherlands.

**Table 4: Comparing Communes: USA, Australia, UK.**

Energy Use GJ/capita/ year

	USA 1970s	Australia 1980s	Redfield 1990s
Heating	51	20	40
Electricity	9	2	10
Petrol	40	16	9
Train/bus		1	2
Air		2	3
<b>TOTAL</b>	<b>101</b>	<b>41</b>	<b>64</b>

Reinders et al 2003). In their book *'Green Households'* Klaus Noorman and Ton Uiterkamp estimate that for the average household the energy content of goods and services purchased is slightly more than the energy use purchased directly (for gas, electricity, petrol). Also they assume that total energy consumption of non-energy purchases is strongly correlated to income, and that the energy content per £ purchased does not vary significantly between different types of expenditure.

Assuming that UK expenditure patterns are similar to the Netherlands (and using a suitable exchange rate) it is possible to estimate the energy consumption in the purchase of goods and services in the UK. Table 3 shows estimated energy consumption per capita for Redfield, and for average UK and Netherlands households.

Thus for Redfield, their below average incomes lead to lower estimated energy consumption for non-energy purchases than the UK average. This goes some way to compensate for their higher consumption in energy purchases. This is the reverse situation of Dutch households, where low energy purchases, due to low heating use (and perhaps small houses), is overcome by higher incomes and consequent higher non-energy purchases.

#### COMPARISON WITH OTHER COMMUNES STUDIES

The only other surveys of energy use in communes were in the USA in the 1970s by Corr & MacLeod, and in Australia in 1980s by deGryse (1985). The survey for the USA was for a group of urban communes in Minneapolis in the USA, the high values for heating indicate their severe winters while high petrol use indicates the high fuel consumption (low km per litre) of US cars at that time. The survey for Australia was for a remote rural community, where a mild climate leads to low heating use. Also most of the heating was by wood collected by 4 wheel drive vehicles – hence perhaps the high petrol use. Interestingly the values for public transport (train/bus and air) are very similar to Redfield.

The energy use figures for the USA and Australia communes are far lower than the average for their country, at least a third lower. This difference has been used to point out the energy saving advantages of communal living (Metcalf 2000). However without knowing the income or other characteristics of these communities it is difficult to assert that they are any different from other households having similar incomes (like pensioners) or living in similar locations. Communal living may be of no significance.

#### Environmental impact of communal living

Communal living, through the sharing of resources, is widely believed to be a way to reduce ones environmental impact upon the Earth. This lessened impact is frequently a stated goal of communities and to be achieved through energy efficiency, recycling and use of renewable fuels. In a questionnaire I gave to members at Redfield I asked about the merits of communal living as a means to reduce environmental impact in society. The comments fell into three categories:

1. Physical: sharing facilities leads to less environmental impact and lower costs.
2. Social: there is less social competition to consume.
3. Political: doubting the feasibility of continued economic growth and reduced environmental impact.

Under the first category – what might be termed the 'economies of scale' argument- sharing reduces costs and need for individual possessions. One Redfield member said:

*«It reduces material consumption because we cook together, using very little processed food and saving energy. We share one kitchen, one washing machine, films on video etc. We try to produce as much of our own food as possible. We can share tools and other equipment (lawn mower, chain saw) etc. We circulate unwanted clothing etc. We can skillshare - so we're more likely to 'fix' something than go out and buy new.»*

The benefits here are clear and straightforward, but their impact on consumption is not clear-cut. Sharing does not necessarily lead to lower consumption. In fact shared facilities make possible access to expensive (and energy intensive) resources that the individual could not hope to attain such as swimming pools, saunas, hot tubs, cars, holiday homes etc.

Under the second category, the social impact of communal living, one Redfield member said:

*«Communal living is more satisfying leading to a reduction in the need for 'toys' to keep up morale in a conventional 9-5 situation.*

*The 'keeping up with the Jones' needs are also reduced as 'the Jones are communards' in the same situation as me. There is an ethos of negative snobbery - the less my second hand bargain clothes cost, the more people think that I'm smart (kind of thing!). I can tailor my earnings to meet my lower costs.»*

This social influence not to consume, and hence be content on a lower income, does have an important environmental impact. For impact is definitely linked to income – it is almost impossible to be a rich 'green consumer'. In a materialist society it is socially difficult not to consume unless one is a hermit, but communes provides the possibility to be islands of non-consumption. As another remarked:

*«There is reduced peer pressure to spend money compared to life outside Redfield. Socializing and leisure costs are greatly reduced. The general ethos at Redfield is to reduce our environmental impact as much as possible and this is contagious - we also learn from each other.»*

This educational or political role of communal living is explored in the third theme: the lack of awareness of most people about the link between consumption and environmental impact. As one Redfield member commented:

*«You mention material consumption = environmental impact as though most people agree with it, but of course they don't. All political parties want increased material consumption and environmental protection, and are trying to fool us into thinking we can have both.»*

While another said:

*«It is an interesting discussion or [question that has far reaching implications for the wider society in general. I don't think economic growth and improved or lessened environmental impact can actually co-exist.»*

## Economic Growth vs Environmental damage

This question of whether we can have continued economic growth without more environmental damage is at the heart of the environmental debate since the 1960s. It was first highlighted in the mid 1960s by Herman Daly (1991), and received worldwide attention in the 'limits to growth' debate in the early 1970s. Some say it has been resolved through the possibility of 'dematerialization', that is economic growth without material consumption using vastly increased resource efficiency and a shift to a service economy. These ideas have received extensive publicity and government support, through such books as 'Factor 4' and 'Natural Capitalism'.

However I have argued elsewhere that improvements in resource efficiency alone will not lead to reduced material consumption (Herring 2000). What is needed is an ethos of conservation – living with less – rather than of consuming

more through higher efficiency (Sachs 1988). Andy Rudin, a US energy manager and moralist argues passionately for energy conservation to be considered a noble goal and on his website (Rudin 1999) explicitly makes the moral case:

*'... if we want to protect the environment, we have to emphasize conservation and restraint, not improved energy efficiency and consumption. This is a moral issue, not an economic one...'*

*Conservation is heroic because it implies discipline, sacrifice, caring for common interests... We should use less energy because it is the right action, not just because someone pays us to do so.'*

Laurie Michaelis, currently an Oxford researcher into the ethics of consumption, believes that we should aim to develop ideals of the good life that can be achieved without excessive material consumption. He concludes this is *'likely to require a cultural change...deciding collectively how the good life should look, and to modify our behaviour accordingly.'*

## Conclusion

The results from this preliminary study of energy use in a community reveals that the physical sharing of resources (through living together) does not necessarily reduce consumption. Rather a low consumption lifestyle comes from the mutual reinforcement of attitudes achieved through communal living and working. Thus it is the creation of social capital in this community that is its key to an ecological lifestyle (Bridger & Luloff 2001). Such groups, often founded by religious and community organisations, are often labelled 'utopian' but their history reveals that the 'utopian' can, over time and with the help of sympathetic officials, become mainstream (de Geus 1999; Hardy 2001).

Intentional communities have some advantages for those wishing to pursue a sustainable and ecological way of life, even granting that in some cases there may also be drawbacks (as when, for instance, a community's isolated location necessitates getting around by car). A new Encyclopedia on communal living comments (Simon & Herring 2003):

*'Part of their advantage comes from the attitudes of their members, who tend to be modest in their demands; part of their advantage comes from their organization and structural elements. Thus, although living in a community may not be a necessary condition for sustainability, the relative success of intentional communities is a challenge to the rest of the society. Communal living promotes a culture of conservation by showing the rest of society how the good life should look.'*

To do this communal living has to have a moral, rather than economic basis. Sharing facilities, such as in co-housing, is not enough: this is just consumption through (economic) efficiency. Although co-housing based on environmental and energy efficient design is desirable and becoming increasingly popular, it is not sufficient (Meltzer 1998). What is needed is a moral vision and a practical demonstration about a voluntarily chosen low consumption lifestyle.

This goal of 'voluntary simplicity' has been the teaching of all religious leaders, but is hard to sustain in a materialistic society. Communal living, as did monastic communities in past ages, offers a refuge from competitive consumption. As Bill Metcalf (2000) remarks *'...for any community to be sustainable it must endure as a social unit while dramatically reducing its*

*environmental impact. Unfortunately, those communal groups on the increase are the very ones with the least potential for environmental saving. That is the dilemma facing sustainable communal into the 21st century.'*

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