EU Sustainable Consumption and Production Action Plan

Briefing, evaluation, and action for Quakers

The Quaker Council for European Affairs

Produced by the Quaker Council for European Affairs (QCEA)

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The Quaker Council for European Affairs (QCEA) was founded in 1979 to promote the values of the Religious Society of Friends (Quakers) in the European context. Our purpose is to express a Quaker vision in matters of peace, human rights, and economic justice. QCEA is based in Brussels and is an international, not-for-profit organisation under Belgian Law.

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Acknowledgments

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List of Acronyms

These are the main acronyms used in this report:

ACEA	European Automobile Manufacturers' Association
ANPED	Northern Alliance for Sustainability
CAFE	Corporate Average Fuel Economy (a US regulatory system)
CAP	Common Agricultural Policy
CO_2e	Carbon dioxide equivalent
CRAG	Carbon Rationing Action Group
DGTREN	Directorate General for Transport and Energy
EEA	European Environment Agency
EEAP	Energy Efficiency Action Plan
EPBD	Energy Performance of Buildings Directive
ESD	Energy End Use and Energy Services Directive
ETS	Emission Trading Scheme
EU	European Union
EU15	The 15 Member States of the European Union prior to the new accessions from 2004
EU27	The 27 current Member States of the European Union
GHG	Greenhouse gas(es)
HFCs	Hydrofluorocarbons – a group of gases used as refrigerants to replace CFCs. HFCs are powerful greenhouse gases.
IPCC	Intergovernmental Panel on Climate Change
MEP	Member of European Parliament
NGOs	Non-governmental organisations
PFCs	Perfluorocarbons - A group of industrial gases that are also powerful greenhouse gases
QCEA	Quaker Council for European Affairs
SCP	Sustainable consumption and production
SCPAP	Sustainable consumption and production action plan

1 Summary

Global challenges to sustainability – especially climate change and crises in energy, food and water supply – mean that European lifestyles must change. Governments have agreed to develop action plans for sustainable consumption and production (SCP) but their environmental, energy and food strategies are based mainly on finding new supplies rather than reducing consumption. The European Commission has proposed a Sustainable Consumption and Production Action Plan (SCPAP) for the EU in a communication to the European Council and Parliament.

The key instruments in the SCPAP are extensions of existing directives relating to the efficiency of energy-using appliances, vehicles and buildings. It contains only very limited initiatives to change consumption although there are some provisions for education and public engagement. As it stands, the SCPAP will not deliver sustainable consumption and production. To do so would require a radical realignment of all aspects of EU policy to make reducing energy consumption the most urgent priority.

There is an inherent tension between the goal of sustainable production and consumption, and most governments' overriding priorities of economic growth, employment and international competitiveness. Perhaps the greatest challenge is that most people, and certainly most in government, do not believe that we can make the changes needed in our lives.

Quakers are committed to shared values of equality, justice, simplicity, sustainability, peace and community, as expressed through the Quaker 'testimonies'. These values have long led Friends to criticise materialism and consumerism, and to advocate more frugal ways of living. Many Quakers have made substantial efforts to reduce the impacts of our lifestyles; some have achieved carbon footprints a small fraction of the European average. We have found the process of change joyful and rewarding, especially when supported by a close community with shared values. There are three essential areas for change:

- Shifting our diets away from meat and dairy towards plant-based products, and also reducing our use of food that is frozen, processed, and transported long distances;

- Reducing our car and air travel, rearranging our lives so that we can meet most of our needs with non-motorised transport (walking and cycling) if we are physically able;

- Changing our energy using habits: especially turning down the thermostat and only heating rooms when they are occupied.

It has never been more urgent to develop our spiritual community as a radical voice and example, sharing our experience that a simpler way of living is not only possible but also better, and using that experience as a basis for engaging government, business and the media.

The SCPAP raises many opportunities to engage with both national and EU politicians. For Quakers the emphasis is on listening and dialogue: 'seeking truth with power' rather than 'speaking truth to power'. The main steps needed in EU and Member State policies are:

1. Ensuring that the existing provisions of the SCPAP and other SCP-relevant policies are fully implemented and enforced in Member States, especially the Energy Performance of Buildings Directive and the Energy End Use and Energy Services Directive

2. Developing more effective policies within current frameworks and stated goals, especially addressing energy use in existing buildings and in the transport sector, and emissions from agriculture

3. Acknowledging that existing policies are inadequate even to achieve governments' stated goals for GHG emission reduction and that these goals are themselves inadequate to ensure climate safety

4. Acknowledging that energy policies based on securing new sources of fossil fuels from vulnerable parts of the world will compromise human rights and lead to increased conflict and violence

5. Placing much greater emphasis on demand reduction so that new fossil fuel and nuclear energy sources are not needed. Many Friends have demonstrated the possibility of 50-80% reductions in personal energy use relative to national average levels.

There are several elements to politicians' role. We need them to:

- Lead by example as individuals – abandoning large houses and cars and air travel as symbols of their own status and success

- Work for more sustainable consumption practices in EU and other government institutions

- Work for the development of new EU policies to reduce GHG-intensive consumption, especially in the areas highlighted in this report: car and air travel, home energy, and meat and dairy consumption.

An effective strategy would include a comprehensive range of measures to encourage sustainable consumption by all people and groups in society, recognising that they vary considerably in their motivations and the kinds of influence they respond to. It is not fruitful to argue about the relative effectiveness of, say, taxes versus regulations. When the urgency of the sustainability challenge is recognised, we will want to do everything possible to respond to it.

2 Sustainable consumption and production: the global challenge

Current patterns of consumption and production are clearly unsustainable. High levels of resource use, toxic pollution and greenhouse gas emissions are causing irreversible damage to ecosystems, biodiversity, and natural cycles of water, carbon, nitrogen and soil. Averting climate change in particular requires a 90% reduction in greenhouse gas emissions. Meanwhile humanity's way of life, particularly in the northern hemisphere, far exceeds the natural capacity to provide energy, land and water.

Three areas of human consumption are particularly responsible: food, transport and buildings. Within these, meat and dairy consumption, car use and air travel, and the use of heat and electricity in homes cause the majority of the impacts. Consumption in these areas is grossly unequal:

- There is roughly one car for every two people in Europe, compared with one for 120 people in China and one for 135 in India[1].
- The average person in Europe consumes 1600kWh of electricity at home annually, compared with 244kWh for the average person in China and 98kWh in India[2].
- The average person in Europe consumes 91kg of meat and 260kg of milk per year, compared with 55kg of meat and 17kg milk in China and 5kg of meat and 68kg of milk in India[3].

While population patterns are part of the sustainability problem, the majority of the world's resource consumption is by an affluent minority.

The world's governments formally agreed to work for the elimination of unsustainable consumption and production patterns in the Rio Declaration from the 1992 Earth Summit. Sustainability is increasingly part of everyday rhetoric in politics, business and the media. However, action is slow to follow words, partly because of divergent understandings of the degree and nature of the challenge, and of the action and change needed. Tensions arise between political parties, between different parts of government, and between different business interests.

2.1 Climate change

Since 2006 evidence has rapidly accumulated showing that climate change is happening, that it is caused by human activity, and that the consequences may be far worse than hitherto imagined. Scientists are now warning of the potential for passing 'tipping points' that could lead to runaway climate change. The most imminent appear to be the melting of Arctic sea ice, and methane bubbling out of melting permafrost and warming oceans.

The 2007 Fourth Assessment Report from the Intergovernmental Panel on Climate Change[4] (IPCC) brought a new clarity that, if dangerous climate change is to be avoided, global GHG emissions need to fall by at least 85% by 2050. Even with these reductions the world would warm by 2-2.4°C, with substantial impacts

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[1] China and India represent nearly 40% of the world population. 2006 data for China and India from Davis, Stacy *et al*, *Transportation Energy Data Book, 27th Edition,* (Oak Ridge, TN: Oak Ridge National Laboratory, 2008)

[2] International Energy Agency statistics, 2006 data, energy balance tables accessed 29 June 2009, available at www.iea.org

[3] These are food supply statistics for 2003 from the UN Food and Agricultural Organisation, national food balance tables accessed 29 June 2009, available at www.faostat.fao.org

[4] IPCC, *Climate Change 2007: Synthesis Report*, accessed 24 June 2009, available at http://www.ipcc.ch/

including risking the loss of around 30% of all species. With growing evidence since the publication of the report that climate change is proceeding faster than expected, some prominent scientists are calling for more urgent emission cuts[5]. One recent study[6] finds that to have a 50% chance of limiting the global temperature rise to 2°C – the goal widely adopted by governments – CO_2 emissions between 2000 and 2050 must be limited to 1440 billion tonnes. Of this, 234 billion tonnes of this had already been emitted by 2006.

The EU27 account for about one eighth of total global GHG emissions. The EU15 committed in the Kyoto Protocol individually and collectively to achieving an 8% reduction on 1990 levels, averaged over 2008-2012. Several of the twelve new Member States made the same commitment, Poland and Hungary committed to a 6% reduction, and Cyprus and Malta were not included in the commitments. The protocol makes provision for countries to meet their commitments through emission trading or other forms of 'burden sharing', and the European Union acts as a group for this purpose within which some countries are allowed to increase their emissions while others achieve reductions. In 2006, the European Union had already almost met its commitment, as EU27 emissions of GHG subject to the Kyoto Protocol[7] amounted to 5.14 billion tonnes CO_2-equivalent[8], 7.7% below the total for those countries in 1990. However, EU15 emissions were 4.15 billion tonnes CO_2-equivalent, down only 2.2% on 1990. Most of the reductions so far can be ascribed to the economic restructuring of former eastern bloc countries (including eastern Germany which is included in the EU15 figures). Meanwhile, EU27 emissions in 2006 were 1.5% higher than in 2000 and if this trend were to continue the target would not be met. On the other hand emission reductions are expected due to the 2008/2009 recession.

One of the major shortcomings of the Kyoto Protocol was that it did not address emissions from international aviation and shipping, which are hard to allocate among countries. In the EU15, international aviation contributed 61Mt of CO_2 in 1990 and 124 Mt in 2006. Other emissions produced by aircraft at high altitude are estimated to roughly triple this contribution. Emissions from international shipping rose from 103Mt of CO_2 in 1990 to 165 Mt in 2006. If these sources are included, EU15 emissions have increased by about 4% between 1990 and 2006.

2.2 The energy supply crunch

Concern about energy security has grown in recent years. The oil market has received most attention, with very high prices and warnings of a 'supply crunch'. Western European countries are also increasingly aware of their dependence on imported gas, mostly from Russia.

Some analysts have claimed that the world has already reached "Peak Oil" – the point at which oil extraction peaks and declines as reserves are exhausted. Current oil reserves estimated by governments and oil companies amount to about 40 years of current consumption. These are economically recoverable

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[5] PIRC [Public Interest Research Centre], *Climate Safety* accessed 28 April 2009, available at www.climatesafety.org

[6] Meinshausen, Malte *et al.*, 'Greenhouse-gas emission targets for limiting global warming to 2°C', *Nature*, 458 (2009) pp. 1158-1162

[7] The Kyoto Protocol covers six greenhouse gases or groups of gases. CO_2, methane and nitrous oxide are the major contributors to climate change with many natural and anthropogenic sources. Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6) are industrial products or byproducts.

[8] EEA, Annual European Community greenhouse gas inventory 1990–2006 and inventory report 2008: Submission to the UNFCCC Secretariat, (Copenhagen: EEA, 2008)

This figure includes emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6. It excludes the contribution of land use, land use change and forestry (LULUCF) which amounts to a net removal of CO_2 from the atmosphere, leaving a total of 4.65 billion tonnes. It also excludes emissions from international aviation and maritime transport, which are not covered by the Kyoto Protocol.

reserves – i.e. they are economic to extract at current market prices. As oil prices rise and extraction techniques are improved, further oil is expected to be available but current estimates of the total global resource amount only to about 70 years of current consumption. Although this may seem a long time, about half of the world's original oil resources have been consumed, and there are predictions that it will simply not be possible to increase the rate of extraction in the future. The result will be rapidly rising and volatile oil prices. Some writers have warned of serious food shortages as fertiliser becomes unavailable, leading to mass starvation, war and literally the end of western civilisation[9].

The view from oil industry analysts is that, while supply is constrained, this is more due to lack of investment than absolute resource limitations. The investment and development decisions of international oil companies are increasingly driven by the goal of increasing share prices and tend to be focused on the short term. Meanwhile, the national oil companies in most Middle Eastern countries are not being allowed to increase oil output as governments prefer to keep the oil in the ground and sustain the world market price. Regardless of the causes, oil and gas prices are expected to remain volatile, and to increase over the long term.

Concerns about Peak Oil must be set alongside climate change. The analysis by Meinshausen *et al*[10] shows that we cannot afford, in climate safety terms, to burn more than half of current oil reserves. We cannot therefore wait for rising oil prices to force a cut in consumption. If the risk of runaway climate change is to be averted, oil consumption must be cut voluntarily.

However, Peak Oil seems to capture the public imagination more easily than climate change. The Transition Movement places equal weight on preventing climate change and preparing for Peak Oil. However, a study of Transition Town initiatives in Britain found that participants were much more concerned about peak oil and building local self-reliance than preventing climate change[11]. Over half of the initiatives had activities related to growing food (good for self-reliance) but fewer than 10% had activities related to energy or transport (the most important sources of GHG).

Restraint in fossil fuel consumption will mean low world market prices and governments may need to introduce high taxes, or tight cap and trade systems, or regulations to limit imports or consumption. Recent high prices looked as if they were helping the climate mitigation agenda but it is hard to tell. The result may have been to delay government action – although it probably has made it easier to introduce technology energy efficiency standards.

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[9] Coleman, Vernon, *Oil Apocalypse, (*Barnstaple, UK: Blue Books, 2007)

[10] Meinshausen, Malte *et al.*, 'Greenhouse-gas emission targets for limiting global warming to 2°C', *Nature*, 458 (2009) pp. 1158-1162

[11] Seyfang, Jill, Green Shoots of Sustainability: The 2009 UK Transition Movement Survey, (Norwich: University of East Anglia, 2009)

3 Technological and economic responses and the need and potential for lifestyle change

Ninety per cent reductions in greenhouse gas emissions would require both a substantial reduction in final energy use (fuels and electricity, mostly in buildings, industry, agriculture and transport), and a shift in energy sources from fossil fuels to renewables. There would also need to be major changes in agriculture, in particular to reduce emissions associated with livestock, fertiliser manufacture and loss of soil carbon.

3.1 Potential of technological and economic measures

Governments – and much of the public – would prefer to be able to achieve sustainability without foregoing economic output. Policy analysts often see the challenge in terms of reducing the carbon or the GHG intensity of the economy. CO_2 emissions per unit of economic output have fallen by about 1.2% per year over the last 50 years[12].

Technology does exist that could achieve most of the emission reductions needed, albeit at a cost. The IPCC reviewed scenarios in the literature in which, with appropriate government policies, an 85% reduction in global GHG emissions could be achieved by 2050 with less than 5% loss in economic output relative to reference scenarios. In the IPCC's reference scenarios[13], the world economy grows by a factor of three to five between 2010 and 2050. The implied reduction in the GHG intensity of GDP is therefore 95-97%, with an annual rate of reduction of 7-8%.

These figures do not represent an agreed position of the IPCC. They are simply scenarios in the published literature which have been reviewed for the Assessment. In fact, background analysis carried out in developing the IPCC reference scenarios suggested that GHG intensity would be unlikely to fall globally and economy-wide by more than 2-3% per year[14]. Achieving even this would require maximum efforts in the form of government policies, process and product innovation by firms, and shifts in consumption patterns. In fact, since 2000, the carbon intensity of the world economy has increased by 0.3% per year[15].

The implication is that an 85% or greater reduction in global GHG emissions over 40 years is unlikely without a substantial reduction in world economic output. The economy – and average levels of real income and consumption – might need to shrink by 60% or more over that period (2% per year), returning to 1990 levels or lower.

A growing number of analysts are explaining in one way or another that technological innovation and incremental changes in consumption patterns will not be sufficient to achieve a sustainable society[16]: a shift to a zero-growth economy is needed[17].

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[12] Canadell, Josep *et al.*, 'Contributions to accelerating atmospheric CO_2 growth from economic activity, carbon intensity, and efficiency of natural sinks.' *Proceedings of the National Academy of Sciences of the USA*, 10.1073, (Washington, 2007)

[13] Nakicenovic, Nebojsa and Swart, Rob (eds.), *Intergovernmental Panel on Climate Change Special Report on Emission Scenarios*, (Cambridge: Cambridge University Press, 2000)

[14] Michaelis, L., 'Economic and technological development in climate scenarios', *Mitigation and Adaptation Strategies for Global Change* (1998) Vol. 3, Nos 2-4, pp. 231-261

[15] Canadell, Josep *et al.*, 'Contributions to accelerating atmospheric CO_2 growth from economic activity, carbon intensity, and efficiency of natural sinks.' *Proceedings of the National Academy of Sciences of the USA*, 10.1073, Washington (2007)

[16] Fedrico, Doreen and Tukker, Arnold, Blueprint for European Sustainable Consumption and Production: Finding the Path of Transition to a Sustainable Society, (Brussels: European Environment Bureau, 2009)

[17] Jackson, Tim, *Prosperity without Growth?: The transition to a sustainable economy*, (London: Sustainable Development Commission, 2009)

The level of the challenge can also be seen in terms of energy supply and demand. Europe needs to move beyond fossil fuel use by 2050. European Commission energy scenarios have renewable sources contributing 23-27% of **current** total primary energy supply in 2050[18]. Nuclear power currently meets about 10% of primary energy demand. Even with a considerable expansion of nuclear power, energy consumption would still need to be cut by 60-70% so that it can be provided from carbon-free sources. Meanwhile we would not consider an expansion of nuclear power consistent with sustainability.

3.2 Potential for emission reduction through lifestyle change

For most people such a change sounds unattractive or even impossible. However, there are many groups and networks now developing approaches to sustainable living, including the Slow Movement, Transition Towns, Carbon Rationing Action Groups (CRAGs), and EcoTeams. The results from EcoTeams are perhaps indicative of what can be achieved by large, standardised approaches. These groups are run by Global Action Plan, which has branches in several EU countries and produces a workbook for small groups to monitor their waste generation and gas, electricity and water use. Participants typically achieve reductions in energy use of the order of 10% in a three-month course of workshops. CRAGs are more self-organised and participants are probably more personally committed. In a 'census' of UK CRAG participants in 2008, they had reduced personal CO_2 emissions in their first year from 90% of UK average emissions to 62%[19].

In 2006, as part of a response to the UK government's energy policy review consultation, Living Witness Project invited British Quakers to write about ways they had reduced energy use. Their approaches vary but they generally include:

- Avoiding car and air travel; arranging their lives so that they can meet most of their needs for social engagement and access to work and services by walking and cycling
- Minimising their use of heating and air conditioning – adapting to changes in temperature through acclimatisation and varying what they wear
- Insulating their homes as far as possible, choosing the most efficient appliances and lights available, not using dishwashers, TVs or freezers and, in some instances, using renewable energy sources such as wood stoves and solar water heaters
- Avoiding meat and dairy products, avoiding processed or frozen foods, and growing their own food.

Many British Friends have used the Living Witness Project guide, *Your contribution to climate change*, to estimate their personal greenhouse gas footprint[20]. For the average UK resident, total emissions of 11.5 tonnes/year CO_2-equivalent greenhouse gases (CO_2e)[21] are broken down as shown.

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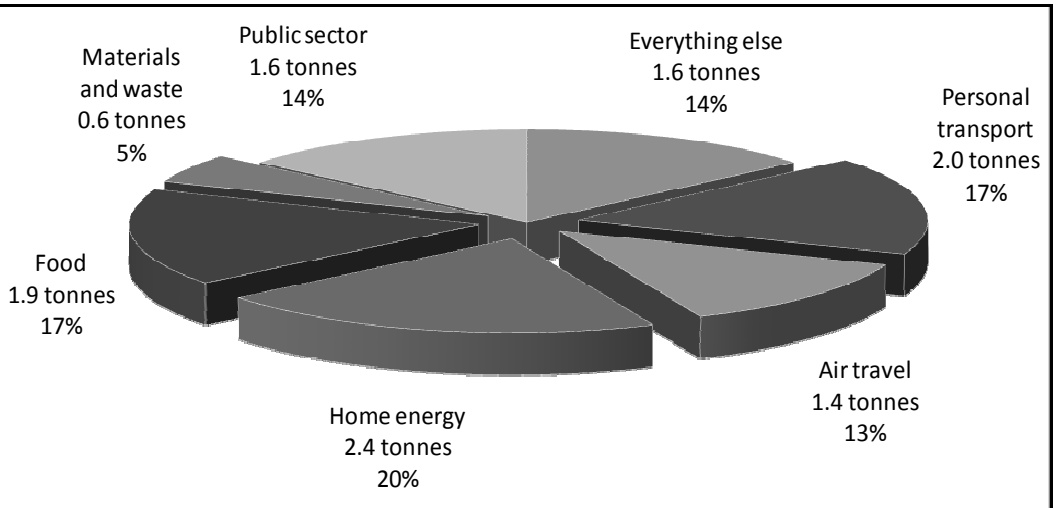
[18] European Commission: Directorate-General for Research, *World Energy Technology Outlook - 2050*, (Luxembourg: Office for Official Publications of the European Communities, 2006)

[19] http://www.carbonrationing.org.uk/

[20] The guide is available at www.livingwitness.org.uk as a downloadable leaflet. A background paper explaining the basis of the leaflet is at http://www.livingwitness.org.uk/resources.htm

[21] This total figure includes emissions from international aviation (other than personal travel), maritime transport and net CO_2 embodied in trade – i.e. emissions in other countries to produce goods and services consumed in the UK minus emissions in the UK to produce goods and services consumed elsewhere. However it uses an estimate of the trade-embodied emissions from the mid-1990s when this was only 5% of total emissions. A recent study found that it has grown rapidly to reach about 20% of emissions in 2004.

Greenhouse gas emissions (tonnes CO_2e/year) per average UK resident (Total 11.5 tonnes/year)



"Materials and waste" includes only materials thrown out in household collections -- not cars, building/DIY waste, large appliances etc.

Public sector includes schools, hospitals, government buildings, the military etc.

"Everything else" includes supply of clothing, furniture, electrical equipment, house building, and services such as telecoms, finance and entertainment.

Some Friends have developed lifestyles with as little as one fifth of the European average personal energy use (see box below on 'Low emission Quakers'). While these individuals are unusual in being strongly motivated to develop low-energy lifestyles, their experience demonstrates that change is possible and can be positive and rewarding.

Low emission Quakers?

A few British Friends have agreed to have their personal greenhouse footprint score included in this report. The examples show that 50-70% reductions in emissions are possible relative to the UK average of 11,500kg/year per person. These Friends mostly say that they enjoy the way they live and have found the process of developing their own lifestyle fascinating and rewarding.

Rhiannon: transport 140kg, home energy 1592kg, food 1500kg, materials and waste 196kg, public sector and everything else 2400kg. Total 5828kg/year

My choices are money-limited, having chosen to continue in education. I live in a rented end-of-terrace house shared with four others. I am vegetarian (which saves money) and cannot afford organic food. I control light bulbs but not appliances. I have moved from having baths to twice-weekly quick showers.

Trade-embodied emissions are included in the specified sectors (food, transport etc.) where the calculations are based on physical consumption of goods and services including imports. However the total figure, and hence the residual emissions which have been allocated to 'everything else' and 'public sector', have been underestimated by about 1.5 tonnes CO_2e. See:

Wiedmann, Thomas et al, Development of an Embedded Carbon Emissions Indicator – Producing a Time Series of Input-Output Tables and Embedded Carbon Dioxide Emissions for the UK by Using a MRIO Data Optimisation System, Report to the UK Department for Environment, Food and Rural Affairs by Stockholm Environment Institute at the University of York and Centre for Integrated Sustainability Analysis at the University of Sydney (London: DEFRA, 2008)

Harriet: transport 1140kg, home energy 2800kg, food 760kg, materials and waste, 50kg, public sector and everything else 3400kg. Total 8180kg.

Despite being American and missing my relatives I haven't flown for nearly 3 years. I live with my husband in a 4-bedroom detached house. We have lots of insulation, condensing flue boiler, solar panel, A+ rated appliances. We've gone from two cars to one and halved our driving over the last four years. We use trains for European travel including a trip taking 7 days to northeast Syria several years ago. We're lacto-vegetarian and grow a lot of our own veg.

Laurie: transport 350kg, home energy 750kg, food 300kg, waste 10kg, public sector and everything else 1800kg, total 3210kg.

Although I live alone in a 3-bedroom semi, I've adapted over the years to a winter indoor temperature of about 11°C, partly by wearing lots of clothing layers including a hat, partly by getting plenty of exercise cycling everywhere. I use my woodstove when it gets really cold but mostly my neighbours provide enough heat through the wall so I've included 250kg for the gas they burn. I've never had a car and gave up flying after 9/11. I love cooking and have been vegan since 1984 because of the Ethiopia famine and seeing the film Gandhi.

Anne: transport 540kg, home energy 910kg, food 350kg, waste 250kg, public sector and everything else 2000kg, total 4050kg.

I live with my husband in a semi-detached cottage. It was difficult doing the estimation because of our combination of 2 solar panels, efficient log burner and air source heat pump all contributing to heating and hot water and only having the living room at 17 and bedroom unheated and rest somewhere in between! We go by bike, train and bus whenever we can. I'm vegan and we only eat local organic food. We have a son in America and went to see him two years ago. It's an incentive to make sure we keep a low footprint so we don't feel too bad about visiting him.

Jo: transport 80kg, home energy 846kg, food 720kg, materials and waste 79kg, public sector and everything else 1651kg. Total 3376kg.

We have no car and use public transport or walk wherever we need to go. We do almost all our shopping at the local health food shop and get an organic fruit and veg box from them every week. Most of what we spend is on food. The main change in the last year has been having my daughter. We got rid of our TV before she was born as I didn't want her to grow up with it around. Our parenting lifestyle choices have included: full-term breastfeeding (allowing my daughter to self-wean), baby-led weaning (no pureeing or special baby foods), cloth nappies until she was 13 months, followed by elimination communication (nappy-free), and wearing her in a sling rather than buying buggies and prams.

3.3 Understanding behavioural change

Quaker and other experience suggests that lifestyle changes could, in principle, achieve a large part of the EU's emission reduction targets. People choosing low-emission lifestyles do not seem to suffer a loss of well being, and indeed some may be happier, having given careful thought to the balance of work, family, consumption, money and relationships in their lives. However, most people find radical lifestyle change difficult to contemplate. The behavioural aspects of energy use and conservation have been extensively studied over several decades – as have other aspects of consumption and consumerism[22]. Much has

[22] Jackson, T. *Motivating Sustainable Consumption: A Review of Evidence on Consumer Behaviour and Behavioural Change*, a report to the Sustainable Development Research Network, 2005, accessed 14 October 2009, available at http://www.sd-research.org.uk/

Michaelis, Laurie, 'Consumption behaviour and narratives about the Good Life', in S. Moser and L. Dilling (eds.), *Beyond Message: Communicating Climate Change – Facilitating Social Change*, (Cambridge, England: Cambridge University Press, 2006)

emerged that needs to be taken into account in the development of EU and Member State strategies for SCP. Perhaps some of the most important messages are that:

The conventional economic understanding of human behaviour is wrong[23]. It treats people as rational, autonomous and self-interested, making optimal choices to maximise their own well being. With these assumptions people's current behaviour reveals their preferences and any change would reduce their well-being. In fact, people display what is sometimes called 'bounded rationality', making choices based on limited numbers of criteria and often responding to contextual and circumstantial factors.

Even when people think they are making individual, personal choices, they do not necessarily consume in ways that are good for their health or happiness. Very often they are behaving in ways that conform to their social/cultural group or class. Large parts of consumption are habitual or addictive, or are attempts to meet needs that cannot be met through consumption (e.g. related to coping with personal history or current relationships). Once the most basic needs for food, shelter and health are met, increasing the general level of material consumption in a society does not improve citizens' sense of well-being.

Motivations and patterns of consumption, and likely responses to specific policies and measures, vary considerably from person to person, and for any individual they can vary from situation to situation.

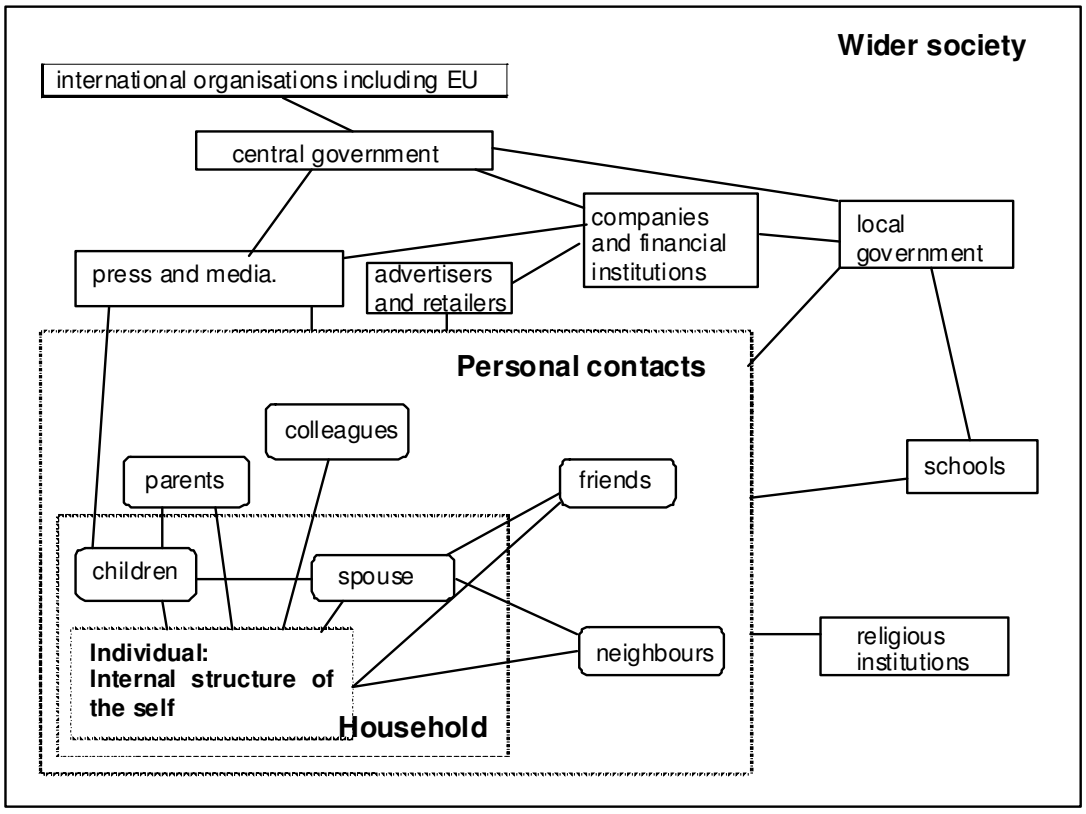
Personal choice and behaviour is shaped by a host of influences, including physiological needs and personality, the social setting, cultural factors, the availability and prices of alternative goods and services. In the consumer society, consumption choices play a central role in meeting social and psychological needs – e.g. for belonging to a group, self esteem, and defining personal identity.

Consumption patterns are mostly 'locked in', partly as a consequence of this web of influences. People do not experience themselves as having real alternatives.

Michaelis, Laurie and Lorek, Sylvia, *Consumption and the environment in Europe — trends and futures*, Danish Environmental Protection Agency Environmental Project No. 904 (Copenhagen: Danish Environmental Protection Agency, 2004)

[23] Jaeger, Carlo *et al,* 'Decision analysis and rational action.' In Steve Rayner and Elizabeth Malone (eds) *Human Choice and Climate Change, Volume 3, Tools for Policy Analysis* (Columbus, Ohio: Battelle Press (1998) pp. 141-215

Web of social influences shaping consumption



When governments have sought to change consumption, the effects of policies have mostly been disappointingly slight or slow, making it hard to sustain them against the resistance of vested interests. However, people have adopted voluntary restraint in times of national emergency and war. Effective strategies would need to recognise ways in which social structure and culture, psychology and behaviour, economy and markets, and technology and innovation are connected. A deep reduction in impacts on the environment will require simultaneous action and effort to address all of these. We will return to some of the implications in Section 6.

3.4 Recognising the spiritual dimension

Sustainable living – in particular changing the way we value and treat the natural world and other people, and changing the role of material consumption in our lives – is a deeply personal challenge, tied up with our sense of self and relationship. As such it is a spiritual challenge. This is particularly true for those who take the lead in developing alternative ways of living that appear to conflict with the values and priorities of the society around them. Some determined green activists may have a deep inner certainty of what is right, and so may be able to sustain unconventional behaviours. Others may be part of a strong social group that supports alternative values. However, these are both approaches that can alienate other people.

Changing ourselves in ways that can serve as patterns and examples for others requires deep reflection to understand our own motives, and a great deal of listening to understand others' priorities and the barriers they face. Conscious self-change is usually a slow process, with frequent setbacks. We need to be willing to learn from our experience and to keep refreshing our focus on the ultimate purpose of sustainable living. We can be very much supported by carrying out at least some of our reflection, listening and learning in a supportive group.

There is a great deal of wealth in the field of action inquiry/action learning, and in the literature on organisational learning and change, in terms of processes for becoming conscious of goals and actions[24]. These relate quite closely to spiritual practices (e.g. on an individual basis, making time for reflection and writing a journal). The core components are:

1. Individual and collective observation of our current behaviour and its effects

2. Reflection and analysis – how does the current situation compare with our visions, values and purposes?

3. Strategy and discernment – what action should we take; what path should we follow?

4. Action, and return to step 1.

Action inquiry practitioners emphasise the quality, depth and honesty of the reflection and analysis, and the importance of viewing the system as a cycle, not a one-off planning regime.

There is some commonality between Quaker approaches to spirituality and the discipline of action inquiry (see Section 5.3.1). Quaker practices would seem to be particularly relevant to the spiritual challenges in sustainable living and are addressed in some detail in another paper from QCEA[25].

[24] Torbert, William R. et al, Personal and Organisational Transformations Through Action Research, (Boston, MA: Edge/Work Press, 2001)

[25] QCEA, Quaker Listening Processes and Sustainable Energy Security, 2009

4 European policy initiatives

With the growing evidence that humanity risks causing runaway climate change, the EU Council has agreed:

1. To the goal of limiting the global temperature rise to 2°C

2. That industrialised countries need to cut greenhouse gas emissions by 80-95% by 2050, contributing to achieving global average CO_2 emissions of 2 tonnes per capita or about half of current levels

3. That the EU should cut its emissions unilaterally by 20% by 2020, or by 30% as part of an international agreement with comparable commitments by other countries/groupings.

The EU position is based on the idea of 'decoupling' economic growth from environmental damage and resource use. It focuses on improving the economic and environmental efficiency of production and products, rather than on changing consumption. EU Member State governments differ in their policy cultures and hence their preferred approaches to climate change and energy security. On the whole, southern European countries have tended to prefer regulation and planning measures, while northern countries (especially Britain and the Netherlands) have preferred economic instruments. EU policy includes a mixture of these, with some of the main measures being:

- The emission trading system (ETS)
- The Car Fuel Efficiency Labelling Directive
- Voluntary agreement with car manufacturers to reduce car emissions
- The Biofuels Directive
- The Energy Performance of Buildings Directive
- The Eco-Design and Labelling Directives
- The Directive on Energy End-Use Efficiency and Energy Services
- Environmental provisions within the Common Agricultural Policy.

Meanwhile EU Member States, and the EU itself, have committed within the UN Commission on Sustainable Development to develop action plans for SCP by 2010 (the 'Marrakech Process'). Several Member States have now produced their plans (including Britain, Finland, the Netherlands). The European Commission developed a plan for the EU in 2007.

4.1 The EU SCPAP – key elements

In 2007 the European Commission carried out a consultation on its *Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan*. The current plan maintains the product and production focus, although some elements seek to improve consumer information. It particularly addresses products that consume energy or affect energy consumption. The main components are:

1. Extending the existing Ecodesign Directive. The 2005 Directive establishes rules for setting eco-design requirements for energy-using products, with the aim of enabling free movement of products within the EU. It empowers the Commission to implement environmental requirements for specific products. The initial priorities are heating and water heating equipment, electric motors, lighting, domestic appliances, office equipment, consumer electronics, ventilation and air conditioning systems. The SCPAP proposes to extend the Directive to cover a wider range of products, including those that do not use energy themselves but affect energy use in buildings such as window-frames.

2. Extending the Energy Labelling Directive. The original 1992 Directive aims to harmonise national energy-use labels for fridges and freezers, washing machines and clothes driers, dishwashers, ovens, water heaters, lights and air conditioners. The SCPAP proposes to extend the scope to cover a wider range of energy-using and energy-related products.

3. An extension of the Labelling Directive would use energy labelling to establish minimum energy efficiency levels for public procurement, similar to the long-standing and successful US Environmental Protection Agency Energy Star label. Labelling would also be the basis for establishing incentives (at the discretion of Member States) for consumers buying energy efficient products.

These measures will be supported by various initiatives including:

– establishing consistent product data and methodologies

– guidance and tools from the Commission to authorities establishing green procurement standards

– setting up a Retailer Forum, aiming for commitments from large retailers to take concrete actions to support sustainable production and consumption

– consumer information, focusing on awareness raising among young people and offering on-line learning opportunities for adults.

The Commission also proposes strengthening policies to encourage industrial resource efficiency (the efficiency with which materials and energy are used to generate industrial output) and eco-innovation (development of green technologies and services). The main current instruments are a number of directives on pollution prevention and control and the GHG Emission Trading Scheme. Additional measures would include monitoring, benchmarking and promoting both resource efficiency and eco-innovation.

Finally, the Commission proposes to work internationally a) to develop international sectoral approaches to climate change mitigation; b) to promote good practice in SCP policies, e.g. via the UN SCP process; and c) to promote trade in environmentally friendly goods and services.

There is obviously considerable overlap with the EU's climate change policies, and also with the Commission's Energy Efficiency Strategy.

The plan was endorsed by the Council on 4 December 2008[26]. In its conclusions it 'invites the Commission to carry out more extensive work in the field of sustainable consumption including by promoting innovative practices involving end-consumers'. It also 'invites the Commission and Member States, taking into account the work already done elsewhere, to further study the "rebound effect" whereby the global increase in consumption cancels out the energy, environmental and resource performance gains of products, and how this can be tackled'.

4.2 Synergy and conflict with other policy areas at EU and national level

The effects of policies targeting energy and environmental goals are often swamped by policies in other areas, especially economic development, employment, trade, transport, agriculture and health. Recently (2008/2009) the main focus of attention for most governments has been the economic recession.

While recessions are painful, they are a major force in economic and technological change and restructuring – what economic historian Josef Schumpeter called the 'creative destruction' of the capitalist system. Firms that are unable to cope with the new market conditions go out of business, while better-

[26] European Council document 16914/08, accessed 4 July 2009, available at http://register.consilium.europa.eu/pdf/en/08/st16/st16914.en08.pdf

adapted firms thrive, and unemployed workers start new businesses that take advantage of emerging opportunities.

While this 'survival of the fittest' approach to social development and learning is at odds with Quaker values, we do believe that governments should at least work with the system to achieve their stated goals for environmental and social welfare. European governments are currently spending massive sums to alleviate short-term economic crisis. This also represents an opportunity – to guide the 'creative destruction' process in ways that meet long-term social goals, and to invest in new technology and infrastructure while the political mood is supportive of government spending. The Green New Deal Group in Britain advocates a massive change in government policy to address climate change and peak oil through a programme of public investment and institution building analogous to F.D. Roosevelt's New Deal in 1930s America[27]. However, European governments are not generally focusing their recovery packages on green objectives, and have been more concerned to maintain jobs in existing sectors such as the car industry.

It is already easy to find a small family car that meets the 120g/km CO_2 target but only the Toyota Prius T3 meets the 95g/km target. Examples include:

The Toyota Prius T3, 89g/km

Volvo 1.6 D DRIVe Stop/Start, 104g/km

VW New Golf 1.6 TDI (105 PS) BlueMotion SE, 107g/km

Honda Civic Hybrid 1.4 IMA ES, 109 g/km

Among larger cars, only the VW Passat Saloon 1.6 CR TDI (105 PS) BlueMotion has emissions below 120g/km.

Source: http://actonco2.direct.gov.uk

4.2.1 Energy security policies

Perhaps one of the most important potential synergies for the SCPAP is with policies related to energy security. The disruption in gas supplies from Russia in January 2009 highlighted the need for a stronger gas transmission network within the EU, for additional storage capacity and for diversification of supply. In the longer term EU policies seek to reduce dependence on energy imports. The 20-20-20 policy aims for a 20% reduction in GHG emissions, 20% energy demand reduction and for renewables to meet 20% of final energy demand in 2020. From the consumption point of view the most important policy packages to meet these objectives are the Vehicle CO_2 Regulation, the Biofuels Directive and the Energy Performance of Buildings Directive. These are considered in the following sections.

4.2.2 Transport policies

Of the three priority areas for SCP, the greatest policy conflict probably arises in the transport sector. It contributes about 25% of overall EU GHG emissions and is growing rapidly. Until now the main instruments to reduce GHG emissions from transport have been:

- Council Directive 2003/30/EC requiring Member States to replace a proportion of road fuel with biofuels, and
- a voluntary agreement between the Commission and the European Automobile Manufacturers' Association (ACEA) to reduce CO_2 emissions per km in new cars
- Council Directive 2006/40/EC, setting standards to limit refrigerant leakage rates from vehicle air conditioning
- Council Directive 2008/101/EC incorporating the aviation sector into the European Emission Trading Scheme established by Directive 2003/87/EC

Probably the most important of these measures, in terms of potential GHG emission reductions, was the voluntary agreement with ACEA. However, the motor industry has not met the goal of reducing new car

[27] Green New Deal Group, Green New Deal: Joined-up policies to solve the triple crunch of the credit crisis, climate change and high oil prices. (London: New Economics Foundation, 2008)

emissions to 140g/km by 2008/9. Current levels (based on official tests) stand just below 160g/km, and in-use levels are rather higher. A new EU Regulation aims to force a reduction in average new car emissions[28]. Although the Regulation restates the earlier target of achieving 120g/km by 2012, it only requires 65% of each manufacturer's sales to be counted in that year. The 120g/km limit will only apply to 100% of sales in 2015. This is nevertheless quite ambitious, requiring a 4%/year reduction in average emissions. There is then a further reduction to 95g/km by 2020 (nearly 5%/year reduction). Manufacturers whose new car sales have a higher average emission level than the limit in a given year will have to pay a fine which increases with the number of cars sold and the degree of excess emissions.

The Biofuels Directive has been extremely controversial in the context of global food price increases in the last two years. So far, most biofuels have been produced from conventional arable crops – ethanol from sugar beet, wheat and maize, and biodiesel from rapeseed oil. There are questions in particular about the environmental impacts of using prime arable land to produce fuels, and the full fuel cycle greenhouse gas emissions from biofuels based on intensive agriculture. In the long term, processes are expected to be developed for producing biofuels from wood and agricultural wastes. However these feedstocks are much more complex and difficult to work with than oil and starch crops, generally requiring expensive pre-treatment before they can be fermented to produce ethanol, or to separate out tarry components that may be processed to make diesel substitutes. The processes are many years from commercialisation. Meanwhile, such feedstocks can be used more efficiently and effectively to reduce GHG emissions by substituting for fossil fuels in power generation and heating.

Antonio Tajani, Vice President of the European Commission responsible for transport (May 2008 to December 2009), has emphasised that his first priority for the future of transport is to increase mobility, in particular through the 'single sky' policy, the development of European transport networks, and ensuring Member State compliance with competition rules[29]. He also places high priority on improving safety. While 'greening transport' remains a priority through the internalisation of external costs, he is concerned that transport should be cheap.

A sustainable transport policy would have to start by acknowledging that mobility must be limited. Current levels of travel and goods movement in Europe are too high to be maintained, given the environmental and social impacts of the technology currently in use and available. While the EU has encouraged and funded the development of public transport networks and services, it also needs policies to reduce car use and air travel. There is extensive evidence that improving transport networks results in increased traffic, especially if costs are kept low. There is therefore an essential conflict between DG TREN's strategy and the goal of reducing transport energy use. DG Environment sees transport as the major problem area for addressing climate change. The European Parliament has also criticised the failure of policy in this area.

4.2.3 Food and agriculture policies

Food production and consumption has been estimated to contribute anything between 20 and 30% of European GHG emissions – although care is needed about double counting as the higher figure includes emissions from transport, manufacturing, storage, retail and cooking. Although public attention often focuses on food miles, transport accounts for only about 15% of overall food-related emissions. The major variables in the climate impact of food choices are the proportion of meat and dairy products in the diet and the amount of refrigeration and cold storage involved. Agricultural policy also has a close relationship with energy and climate change through the EU commitment to biofuels.

The Common Agricultural Policy (CAP) represents 34% of the EU budget and hence an area where the EU has considerable policy leverage. The CAP is designed primarily to promote economic goals, rural

[28] Official Journal of the European Union L140 Vol 52, 5 June 2009

[29] Tajani, Antonio, Speech as Vice President of European Commission to European Parliament. SPEECH 08/337, (Brussels: European Commission, 2008)

livelihoods, and European integration. Local environmental goals are incorporated through conditions on payments to farmers ('cross-compliance').

While DG Agriculture documents frequently mention climate change as a new challenge that the CAP must address, they show little sign so far of beginning to do so. The Commission's impact assessment of CAP changes proposed as part of the 2008 CAP Health Check does mention some possible greenhouse gas mitigation measures but offers no quantification of potential impacts, and no targets[30]. Evaluation of the CAP changes by the UK government suggest that the combination of further liberalisation of the market and the elimination of set-aside would lead to an increase in land under cereals and oilseeds, and an increase in livestock numbers[31]. Both of these changes would result in higher GHG emissions.

The most important steps for reducing greenhouse gas emissions would be 1) shifting food production and consumption away from meat and dairy, towards plant-based diets; 2) moving towards agricultural practices that build up soil carbon; 3) shifting to low-input or organic agriculture; 4) minimising energy use in food storage and transport, especially by moving away from frozen foods. There have been initiatives in some of these areas. In particular DG Environment prepared a draft Directive on Soil Carbon in 2006[32] with the aim that this would be addressed within the CAP as a cross-compliance matter, but there seems to have been no movement since then. While the Commission has paid attention to organic farming, its focus has mostly been on ensuring standards and transparency in response to consumer demand. There is no sign of an effort to shift consumption away from meat, dairy and frozen foods.

4.2.4 Energy use in buildings

Energy use in buildings probably represents the least controversial area of energy demand and climate policy, partly because the EU has no powers in relation to housing provision. The most natural areas for EU legislation have been in relation to appliance standards and labelling. Building standards are subject to national controls, so that the development of EU-wide energy conservation standards for buildings has been slower.

Of measures assessed within the Energy Efficiency Action Plan (EEAP), the Energy Performance of Buildings Directive (EPBD) is estimated to have the largest impact, at 80Mtoe (million tonnes of oil equivalent) energy savings by 2020, out of a projected total final energy consumption of 1885Mtoe[33].

The 2006 Energy End Use and Energy Services Directive (ESD) requires Member States to set targets for energy efficiency improvement, giving the indicative figure of 9% by 2017. The targets are not to be legally binding. The Directive encourages, for example, the development of utility-led demand-side management. Tipping *et al* evaluate this as the second largest contribution to the EEAP, delivering 60Mtoe energy savings by 2020.

The most important weakness in current EU and Member State policies is in addressing existing buildings. Given the slow turnover of the housing stock, the majority of homes that will exist in 2050 have already been built. An effective policy for sustainable energy use in buildings would have to prioritise reducing their energy consumption. This is a complex task because existing buildings vary considerably and often require individually tailored measures for insulation, alternative energy generation, and improving the way

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[30] European Commission, Commission Staff Working Document COM(2008) 306 final; SEC(2008) 1886, (Brussels: European Commission, 2008)

[31] DEFRA (UK Department of Environment, Food and Rural Affairs), *Impact Assessment of "Health Check" of the Common Agricultural Policy*, available at http://www.defra.gov.uk/farm/policy/capreform/index.htm

[32] http://ec.europa.eu/environment/soil/three_en.htm

[33] Tipping, P. *et al.*, *Impact Assessment on the Future Action Plan for Energy Efficiency*, carried out by ECN (NL) and WS Atkins (UK) for DGTREN. Contractor: ECORYS, NL. (2006)

energy is used. Energy conservation programmes in the past have run into difficulties – for example, draught-proofing old and poorly insulated houses can lead to condensation problems and decay of structural timber.

Utility-led demand-side management also has weaknesses. The British government requires utilities to encourage energy saving by their customers. However, utilities do not have to demonstrate that energy demand has been reduced; they can meet their obligation by paying to insulate homes, distributing free energy-efficient light bulbs, and other measures to promote energy efficiency. Achieving substantial reductions in energy demand will depend on imposing tight limits on the amount of electricity, gas and other fuels that can be sold. Meanwhile efforts are needed to encourage reduced energy use through changes in lifestyle, such as acclimatisation to lower indoor temperatures and reduced use of energy-intensive appliances.

4.3 Decision processes and powers at EU and national level

The level of EU authority and competence varies among areas of consumption and production. Section 4.2.2 noted that the EU has a particularly high influence on the agriculture sector because of its major funding role.

The EU has also had a long-standing competence with respect to technology standards, especially for vehicles and appliances. This may be part of the reason for the emphasis within the SCPAP and EEAP on technology standards.

However, the EU has so far been unable to harmonise energy taxes, which would play a major role in any concerted effort to reduce consumption of oil and gas.

Energy supply policy has been largely a national concern, but there are Council directives, for example, setting rules for the internal markets in electricity and gas, and requiring Member States to promote renewable electricity generation.

A larger part of the legislative authority and influence relating to energy consumption lies at the national, regional and local levels within Member States.

The SCPAP takes the form of a communication from the Commission to the European Council and the European Parliament. It is the first draft of legislation that has to be approved in an agreed form by both Council and Parliament. It includes plans to broaden and strengthen a number of existing Council directives. It also includes measures such as the development of forums and educational initiatives which do not require new legislation.

5 Evaluation of the Sustainable Consumption and Production Action Plan

This section evaluates the SCPAP first on its own terms, in the light of priorities adopted and expressed by EU institutions, then in terms of NGOs that responded in the consultation process on the proposed plan, and thirdly in terms of Quaker values.

5.1 Evaluation of SCPAP on its own terms

EU policy clearly focuses on products and producers as the main locus for reducing the environmental impacts of production *and* consumption, with a particular emphasis on improving energy efficiency. We might want to ask four key questions in considering how effective the SCPAP is likely to be:

- What real changes does it make to EU legislation?
- Does it target the right products, or areas of production and consumption?
- How effective will it be in improving energy efficiency in those areas?

- How will it change the overall impacts of production and consumption (e.g. taking account of the potential for increasing the volume of consumption or shifting it to other areas)?

5.1.1 What real policy changes does the action plan make?

Sustainable production and consumption is perhaps the broadest, most ambitious aim of EU environmental policy. However, the SCPAP itself contains mostly small policy changes. The most important policy instruments mentioned in the SCPAP also fall within other policy areas and 'action plans' – in particular the GHG Emission Trading Scheme, the Energy Efficiency Action Plan (EEAP), and various existing directives. Some of the apparently new measures within the SCPAP had been previously announced elsewhere – for instance the EEAP commits the Commission to proposing performance requirements for building components such as windows in 2009.

In itself, the SCPAP is clearly inadequate to achieve SCP in Europe. The remainder of this section will therefore consider it in the context of EU policy overall.

5.1.2 Does EU policy target the right products?

Studies widely find that three areas of consumption cause the majority of environmental impacts on a lifecycle basis: food and drink, housing and personal travel[34]. These areas account for 70-80% of the environmental impact of all products. Within them, the largest impacts come from 1) residential heating; 2) car and air travel; and 3) meat and dairy production.

EU legislation does target energy use in buildings and transport. The most important measures have already been mentioned. However, EU legislation is relatively weak in addressing greenhouse gas emissions from food and agriculture.

5.1.3 How effective will EU policy be in improving energy efficiency?

The impact assessment for the EEAP[35] notes that energy efficiency in the EU since the 1990s has improved by only 0.5% per year. It gives various estimates for the potential impact of the suite of policies being considered for the EEAP, based on analysis with an energy system model. Care is needed to be clear about the baseline against which policy effects are measured, to distinguish the impacts of policies in place but not fully implemented from new policies, and to avoid double-counting the impacts of policies that have overlapping impacts. The impact assessment concludes that the 20% energy savings anticipated by the EEAP, relative to 'business as usual', is possible, leading to an absolute energy saving relative to 2000 levels of about 6% in 2020. It implies that the EU Renewable Energy Directive bears the majority of the burden in achieving the 20% GHG reduction target. There are as yet insufficient measures to achieve the more ambitious 30% target preferred by the EU Council.

We cannot be confident that even a 6% energy saving will be achieved, given the history of over-optimistic government projections of the effects of their energy conservation policies. Actual outcomes will be heavily dependent on the implementation of policies – in particular the extension of the EPBD to cover renovations and small buildings, the widespread introduction of obligations on energy utilities to invest in energy savings by their customers, a shift towards more energy efficient vehicles, and an increase in road

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[34] Michaelis, Laurie and Lorek, Sylvia, *Consumption and the environment in Europe — trends and futures*, Danish Environmental Protection Agency Environmental Project No. 904 (Copenhagen: Danish Environmental Protection Agency, 2004)

Tukker, A. et al, Environmental Impact of Products, Analysis of the life cycle environmental impacts related to the final consumption of the EU-25, Technical Report Series EUR22284EN, Institute of Prospective Technological Studies, (European Commission Joint Research Centre, 2006)

[35] Tipping, P. *et al.*, *Impact Assessment on the Future Action Plan for Energy Efficiency*, carried out by ECN (NL) and WS Atkins (UK) for DGTREN. Contractor: ECORYS, NL. (2006)

fuel taxes. The future trajectory of oil prices will have a major impact on energy use, so that uncertainties in the baseline are larger than the likely impact of any policy package.

5.1.4 What will the overall impacts be on production and consumption?

The SCPAP does not contain quantitative goals for energy savings. It cites the IPCC as suggesting that there is a cost-effective potential to reduce energy use in buildings by 30%. This kind of figure has been quoted for several decades and is not in itself indicative of reductions that could be achieved by policies. The EEAP estimates cost-effective saving potentials in transport, homes, commercial buildings and manufacturing to be in the range 25-30% by 2020, depending on the sector. However, these are savings relative to a business as usual scenario in which energy consumption grows by 25%, so the absolute saving potential relative to 2005 levels is only 8%.

Improvements in energy efficiency in the housing and transport sectors do not necessarily lead to energy savings. Better home insulation is often valued by consumers because it improves the comfort of their homes, rather than saving them money. Similarly, more efficient cars have lower fuel costs, and so may be driven further. The EEAP impact assessment does not discuss these 'rebound' effects explicitly and while they are accounted for in the model used for the study, they are quite uncertain. While EU policy does virtually nothing to reduce demand for energy-intensive goods and services, and more to promote economic growth, rising demand is likely to offset any energy efficiency improvements.

Perverse effects of energy efficiency regulations

The new EU Regulation on vehicle CO_2 emissions[36] functions in much the same way as the United States Corporate Average Fuel Economy standard (CAFE), introduced in 1975 and extensively studied[37]. The EU Regulation requires that from 2015 the CO_2 emissions per kilometre averaged over all of the new cars sold in the EU by each manufacturer should fall below 120g/km[38]. Alternative fuel vehicles receive extra weighting in reducing a manufacturer's emission average. Manufacturers can pool their sales with each other for compliance purposes. They will be fined if they exceed the limit.

Analysts are still not agreed on the extent to which improvements in fuel economy in the United States during the 1980s resulted from CAFE, and to what extent from the high fuel prices at that time. The policy had perverse impacts, in particular encouraging the marketing and purchase of 'light trucks', which were not covered by the initial legislation and were later covered by a less stringent standard.

We cannot expect the results of the new EU Regulation to be unambiguous. It is ambitious, requiring a 4% per year improvement in energy efficiency. However, it also creates incentives for manufacturers to try and sell more cars and, as in the CAFE experience, to market vehicles that do not meet the definition of 'car' in the legislation[39]. We might expect manufacturers of larger cars to try and market a larger number of very small cars, or else to pool their sales with manufacturers of such cars for compliance purposes. So the regulation could lead to more cars on the road, which would encourage more driving. The new small cars may be used especially as additional vehicles in households that already have larger cars; they may also be marketed in lower-income countries where car ownership is currently low.

5.2 Responses to the SCPAP consultation

Mainstream NGOs remain lukewarm in their engagement on sustainable consumption. Friends of the Earth, in its response to the consultation, says 'We think that great care should be taken not to load too much responsibility on to consumers, as there is a limit to their capacity (and willingness) to address these complex issues.' While FoE says that consumption levels have to fall, its focus is on product and supply chain regulation. It is dismissive of the proposal for a retailer forum and believes that the business community has generally been reluctant to adopt greener products and processes. While it is supportive of green taxation it notes that the EU has little competence in this area and calls for consumption patterns to be addressed mainly through regulation.

Advocacy and analysis for sustainable consumption at EU level has emerged more from government and research institutes. The European Environment Agency (EEA) has established a substantial monitoring and analytical programme on household consumption[40]. The EU Sixth Research Framework Programme is funding the Sustainable Consumption Research Exchange (SCORE!) co-ordinated by TNO in the Netherlands. Within this programme the SCPAP has been evaluated by Lorek *et al* of the Sustainable Europe Research

[36] PE-CONS 3741/08

[37] Michaelis, Laurie, Sustainable Transport Policies: CO_2 Emissions from Road Vehicles, (Paris: OECD, 1996)

[38] The headline date for this limit is 2012 but only 65% of each manufacturer's sales are required to comply in that year.

[39] A car is defined in the relevant Directive, 2007/46/EC, as a vehicle 'designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat.'

[40] EEA, *Time for action – towards sustainable consumption and production in Europe*. Summary report of the conference held on 27–29 September 2007, Ljubljana, Slovenia, (Copenhagen: EEA, 2008)

Institute (SERI)[41]. Sylvia Lorek, lead author of this study, was also co-author of the SCPAP consultation response from the Northern Alliance for Sustainability (ANPED), one of the main NGO alliances working in international sustainability issues. They assert that the plan is too focused on resource efficiency rather than consumption and that an effective programme would also include fiscal measures, more on consumer education, a binding framework for corporate responsibility, and a broad framework of consumer engagement[42].

The SERI report recommends broad policy developments in the three consumption areas that have the greatest contribution to energy use and climate change: food, housing and mobility. A recent SCORE! report[43] calls for a SCP strategy with a broader remit including developing a more equal society, and a three-pronged approach to

1) Establish a new institutional framework with SCP placed at a high strategic level;

2) Lead change where possible within existing structures and mindsets;

3) Develop 'inspiring approaches' to aspects of change that are currently resisted.

5.3 Evaluation of SCPAP in relation to Quaker values

The Quaker approach to SCP can be understood as stemming from our spirituality and faith, from values that are based in that spirituality and faith, and from our practices.

5.3.1 Quaker spirituality and faith

In Meeting for Worship, we listen inwardly for 'the promptings of love and truth', and to others for the truth their words may contain for us. We seek to answer 'that of God' in everyone. Quaker faith is experience-centred, and part of our experience is that all of life can be sacramental. It also fosters a creative and constructive tension between the 'inner light' discerned by the individual and the careful testing of the gathered meeting. Quakers aim to develop a spirituality that is engaged in the world, to express it in the whole of their lives. Friends often bring reflection on practical challenges, both personal and political, into their collective worship.

5.3.2 Quaker values

Quaker values flow out of Quaker spirituality. They are largely expressed in the generally recognised 'testimonies' to peace, equality, simplicity, truth and sustainability[44]. Friends also sometimes talk about testimonies to integrity, community, justice and non-violence. These are all closely connected.

- Compassion and a sense of that of God in the other, which underpin the Peace Testimony, point to a path of non-violence towards other species and the Earth.

- The Testimony to Equality calls us to find ways of living that are possible for all in a world of seven to nine billion people and to work towards fairness in access to resources and opportunities. It also raises questions about our relationship with other species.

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[41] Lorek, Sylvia et al., Sixth Framework Programme Priority FP6 2005-SSP-5A. Scientific Support to Policies (SSP) - Specific Support action. Conclusions and recommendations. (TNO: Delft, 2008)

[42] ANPED [Northern Alliance for Sustainability], 2007, Recommendations to the EU SCP Action Plan, accessed 30 June 2009, available at http://www.anped.org/

[43] Fedrico, Doreen and Tukker, Arnold, Blueprint for European Sustainable Consumption and Production: Finding the Path of Transition to a Sustainable Society, (Brussels: European Environment Bureau, 2009)

[44] QPSW, Engaging with the Quaker Testimonies: a Toolkit, (London: Quaker Books, 2007)

- Simplicity is connected to sufficiency: knowing how much is enough. It means eschewing the clutter of fashion and consumerism to listen for what matters. When we ask what we (and the spirit) really need we can find that it is not very much in material terms.

- The Testimony to Truth and Integrity invites us to listen carefully to the science, our emotional responses, and our sense of right action; to acknowledge our role in the problem; to take others' truths seriously and remember that we may be mistaken; and to bring our lives and meetings into accord with the Truth we proclaim.

- The Testimony on Community is perhaps less recognised than those on Peace, Equality, Simplicity and Truth. However, the Quaker understanding of the interaction of individual, community and God lies at the heart of our spiritual practice and underpins all of the testimonies. Community matters for the environment because consumption and lifestyles are mostly shaped by our social context. We are more likely to behave sustainably if we are supported by shared values and practices.

5.3.3 Quaker practices

Quaker practices are based in our spirituality and values[45]. In particular Friends have distinctive approaches to collective decision-making and organisation that try to ensure continual openness to the 'leadings of the Spirit', through listening both inwardly and to others.

5.3.4 Quaker approaches to sustainability

The author has been working with Quaker groups in Britain since 2001 exploring their responses to the sustainability challenge[46]. These groups have a strong tendency to seek out divergent perspectives on any issue. Any group usually includes Friends who are enthusiastic about the role of technology, those concerned primarily with social justice, one or two who have adopted ultra-frugal lifestyles, and several involved in political activism on a variety of issues, keen to apply their experience to sustainability. There may also be a climate sceptic or two.

Questioning and reflection are an important part of the way Friends seek to engage with any issue; exploring what it means for them and how it would feel to be in others' shoes. But a commitment to hearing the truth whatever its source means that Friends are concerned to study the science, economics, psychology and politics of the sustainability challenge.

Quakers share a strong concern for personal responsibility and integrity – we should live according to our values and insights, and the information we have available. For many Friends this creates tensions, as they feel they should be living low-carbon lives but are enmeshed in family and Quaker commitments requiring extensive car and air travel.

Quakers have long taken an anti-consumerist stance, relating to the testimonies to simplicity and equality. One of the most resonant expressions of this stance comes from the 18th century American Friend, John Woolman:

Oh that we who declare against wars, and acknowledge our trust to be in God only, may walk in the light, and therein examine our foundation and motives in holding great estates! May we look upon our treasures, the furniture of our houses, and our garments, and try whether the seeds of war have nourishment in these our possessions.[47]

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[45] QCEA, Quaker Business Method and Sustainable Energy Security, draft in progress.

[46] See www.livingwitness.org.uk

[47] Woolman, John, *A word of remembrance and a caution to the rich*, 1793. In Moulton, Philip (ed.), *The Journal and Major Essays of John Woolman*, (Richmond, IN: Friends United Press, 1989)

Quaker concerns about the social and environmental impacts have been further expressed in numerous corporate statements through the 20th century[48]. For Quakers, environmental sustainability is of central importance, but Friends also have other major concerns about current patterns of consumption and production. In particular:

- Massive inequalities in the level of material consumption, both between and within countries, are fuelling continued rapid consumption growth, envy and conflict.

- International differences in the abundance of land, water and energy resources are also fuelling conflict.

- Even in the most affluent societies, the culture that sustains consumption and production is corrosive of community, individual well-being and spirituality.

Quakers tend to see unsustainable patterns of consumption and production as part of a wider and deeper problem in modern society – resulting from a culture that equates the good life with material wealth and personal success. This culture has been characterised as the spirit of the age[49].

5.3.5 A Quaker critique of the EU SCPAP

The testimonies can be taken as a starting point for considering how the EU SCPAP stands up to Quaker values:

5.3.5.1 Truth and integrity

As it stands, the Action Plan does not live up to its name: it is not a credible plan for the radical transformation entailed in SCP. It is not so much a plan as a collection of measures without a clear sense of strategy or connection; the measures are incremental – enhancements of existing policies that will not bring about the degree of change needed; and they pay little attention to consumption.

The plan appears to come from a mindset that views SCP mostly as a matter of technical fixes with limited efforts at education and retailer engagement tacked on. An effective SCPAP would need to engage all of the technological, economic, social and psychological processes that support unsustainable consumption and production. It would need a clear vision for transformation of those processes, incorporating a much stronger focus on changing consumption patterns, and in particular on reducing energy consumption as well as improving energy efficiency. It would need to acknowledge the roles of the EU Institutions and Member State governments in our unsustainable society – for example in promoting economic growth, encouraging agricultural and industrial production and consumption, and promoting transport growth. And it would need to set out a clear pathway to transformation of that role.

5.3.5.2 Equality and justice

The plan addresses equality only in terms of harmonisation in the European Communities. This is essentially a concern for equal treatment of producers and products, and to some extent of consumers, by the tax and regulatory systems of EU Member States.

There are many dimensions to the human justice implications of energy use and climate change. Europe imports and consumes energy with insufficient regard to the rights of communities affected by the extraction, conversion and transport of fuels[50]. Meanwhile, climate change is largely being caused by GHG

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[48] Adams, Anne (ed.) The Creation Was Open to Me: An Anthology of Friends' Writings on that of God in all Creation, (Wilmslow, England: Quaker Green Concern, 1996)

[49] Dale, Jonathan, *Beyond the Spirit of the Age*, Swarthmore Lecture, (London: Quaker Home Service, 1996)

[50] Endicott, Neil, *The Nabucco Gas Pipeline: A chance for the EU to push for change in Turkmenistan*, (Brussels: QCEA, 2009)

emissions resulting from the lifestyles of the rich, but the impacts will fall disproportionately on the poor and vulnerable. The need to address these injustices adds weight to the moral need to reduce energy consumption.

There is growing recognition that more equal societies are better for human well-being[51], and that equality is an essential element of sustainability[52]. A more credible SCPAP would address inequalities in consumption – within Member States, between Member States, and between the EU and the rest of the world. Since consumption overall needs to fall, this probably means designing measures to target reductions on higher-consuming groups – for example through electricity pricing that increases unit costs to large consumers.

For Quakers, a commitment to equality is a consequence of seeking to know and answer that of God in everyone. Fundamentally it means treating other people as being of the same essence as ourselves, whose truths, purposes and well-being are inherently important to us. That means that we are uncomfortable with prescriptive approaches to policy, especially those based on mechanistic or idealised models in which people are expected to play a predictable or routinised role (as in most approaches to economic theory and public policy).

5.3.5.3 Peace and community

This Quaker understanding of human nature and relationship leads to a commitment to particular forms of social organisation based on listening[53]. Quakers are closely associated with peace and non-violence movements, but this reflects more than a simple pacifist or anti-war stance. Peace is not necessarily a situation without conflict but it is one where people work constructively with difference and disagreement, with a commitment to mutual compassion, understanding and empowerment. Where people do disagree, rather than engaging in the head-to-head debates common in the media and politics, we are concerned to see an engagement in real dialogue – opportunities to listen to each other and find ways forward together.

This approach to community and dialogue is important in the context of the SCPAP because the transformation required to achieve a sustainable society is profound, requires something from everyone, and is likely to threaten people's perceived interests and comfort zones. Although governments and EU Institutions are committed to public consultation in their policy development, this is usually superficial. Sustainable consumption – lifestyle change – in particular will only be achieved voluntarily if governments radically change the way policies are designed and implemented. Finding ways forward requires real agreement and ownership of the paths chosen, and that depends on deep listening by all involved, with discipline and self-awareness. It probably demands that politicians stop trying to be seen to have the right answers, but also show leadership in being willing to change their own lives.

5.3.5.4 Simplicity

While harmonisation could be seen as an aspect of simplicity, the Plan does not begin to address the need to develop simpler ways of living as part of sustainable consumption. Section 3 has already made clear why a shift in focus is needed, aiming to achieve at least half of the EU's commitment to GHG mitigation through reductions in energy consumption.

This is a strong encouragement to believe that the EU's goal of an 80% reduction in GHG emissions is achievable and could, if necessary, be achieved quickly and through lifestyle change alone. This does not mean that we should be looking to EU Institutions to force lifestyle change. People do not want to be told how to live by a distant bureaucracy. But EU and national leaders do have an essential role to play and this will be considered in the remaining sections.

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[51] Wilkinson, Richard and Pickett, Kate, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, (London: Penguin Books, 2009)

[52] Fedrico and Tukker, 2009

[53] See Michaelis, Laurie, Quaker business method and sustainable energy security, (Brussels: QCEA, 2009)

Simpler lifestyles are easier to adopt when they are supported by others in the immediate community and beyond, and by the availability of appropriate goods, services and infrastructure. A central function for the SCPAP should be to ensure this support.

6 A Quaker agenda for SCP in Europe

6.1 Principles for a more coherent strategy

Many groups and organisations have advocated new, integrated approaches to climate mitigation and SCP[54]. A coherent approach to SCP would bring together different people, institutions, communities and countries. It would function at all scales, from the individual to the United Nations. A real SCP strategy would also engage all of the forces of technological, economic, psychological and social change. Section 6.1 considers the Quaker principles for such an engagement. Sections 6.2 and 6.3 address some of the practicalities.

6.1.1 Towards a 'moral economy'

Quakerism emerged during the English Revolution and was closely related to the political movement to abolish the system of hierarchical power. However, despite advocating radical economic reform[55], in practice Quakers were financially very successful and by the mid-19th century had considerable economic power. Quakers developed strong support mechanisms within their own community and established funds for the relief of poverty more generally but became lukewarm about true reform.

In the 20th century many Friends were active socialist campaigners and connected this to their faith. Quakers have also included economists who took radical positions on the need for reform, notably the American Friend, Kenneth Boulding, whose paper on 'the coming spaceship Earth'[56] predates the better known writings of Herman Daly and the Club of Rome on the ecological imperative to move to a steady state economy. In a Quaker lecture he contrasts love as a basis for organising society with the world's principles of threat and exchange[57].

Recently, as the threat of climate change becomes increasingly real, Friends have seen economic reform as an essential part of the changes needed in society. Peter Brown and Geoffrey Garver[58] set out an agenda to develop a 'moral economy', largely the principles set out by Kenneth Boulding. British Friends have held a series of conferences on the 'Zero Growth Economy'. However, there is as yet no clear Quaker position on the direction required. Some Friends believe that the economy will need to shrink considerably to avoid dangerous climate change and have acted accordingly, by downshifting in their work, income and consumption and devoting time to voluntary work in their communities. Others are less ready for change and cite concerns about unemployment and reduced income for producers in low-income countries as reasons for maintaining an affluent lifestyle. However, there is a growing mainstream acceptance of the need to find new economic models that are not based on growth[59].

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[54] Consumers International, *What Assures Consumers on Climate Change? Switching on Citizen Power* (June 2007), available at www.consumersinternational.org

See also Jackson, 2009, Fedrico and Tukker, 2009

[55] Penn, Willian, *No Cross, No Crown* (Shippenburg, PA: Destiny Image Publishers, 1668)

[56] Boulding, K. 'The economics of the coming spaceship earth', in *Environmental Quality in a Growing Society*, (Baltimore: Johns Hopkins University Press, 1966) pp. 253 ff

[57] Boulding, K., *The Evolutionary Potential of Quakerism*, Pendle Hill Pamphlet 136, (Wallingford, PA.: Pendle Hill Publications, 1964)

[58] Brown, Peter and Garver, Geoffrey, *Right Relationship: Building a Whole Earth Economy*, (San Francisco, CA: Berrett-Koehler, 2009)

[59] Jackson, Tim, *Prosperity without Growth?: The Transition to a Sustainable Economy*, (London: Sustainable Development Commission, 2009)

6.1.2 Grasping the scale and urgency of the challenge

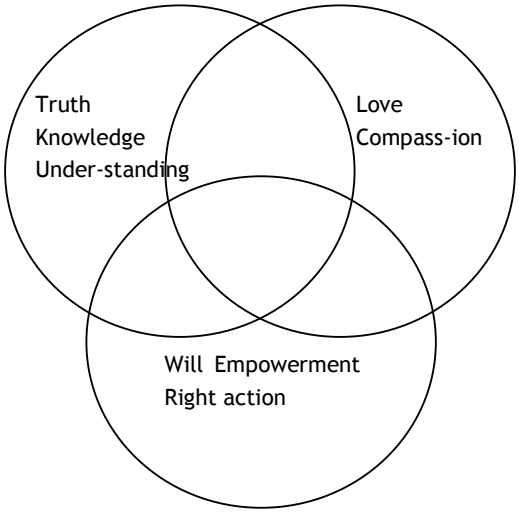
A coherent and effective strategy for SCP would start with the urgency of the need to respond to climate change, moving towards zero CO_2 emissions as soon as possible and certainly within 30-40 years[60]. Governments have been willing to devote all resources to a single purpose when they are at war. A similar or greater concentration of effort is needed to prevent climate change. There is a major risk that, in failing to apply this effort, the world is moving towards real war. Tensions and the potential for conflict are likely to be increased by inequalities within and between societies, by competition for energy and other resources, and in the future by mass migration as a result of climate change.

Human survival may depend on social transformation on a scale that requires everyone, and every kind of organisation, to be involved. However, in developing a SCP strategy, people differ in their perspectives on the truth, in their personal needs and aspirations, and in their beliefs about the way society should work. The strategy needs co-ordination, collaboration, and maximum exploitation of synergies and creative tensions.

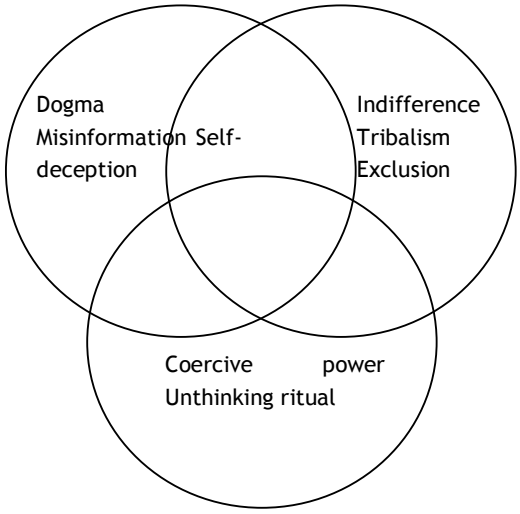
6.1.3 Working with the principles of non-violent social change

The changes needed in our civilisation will involve a substantial redistribution of resources and power. As such they are resisted by those benefiting from the current system and this is one of the reasons governments and the EU have so far adopted only incremental and inadequate approaches to SCP. On the whole, the sustainability agenda has been carried by organisations committed to nonviolence and to inclusive, egalitarian processes. However, violence does find its way into public demonstrations. There is a tendency to seek to blame people in power for the faults of the current system.

Practitioners of nonviolent action draw considerably on the life and work of Mohandas Gandhi[61], who brought together three essential principles. For him *satyagraha* (truth-force – or truth plus empowerment) had to be grounded in *ahimsa* (compassion or love). Where one of these three principles – truth, empowerment or compassion – is missing, alienation develops and provides the seed of conflict and violence.



Positive aspects of the three principles for nonviolence



Shadow sides of the three principles for nonviolence

[60] PIRC, 2008

[61] Gandhi, Mohandas, *An Autobiography: or The Story of My Experiments with Truth*, (Harmondsworth, England: Penguin Books, 1984)

So a strategy for SCP through nonviolent social change must be grounded in:

1. developing mutual understanding with everyone and every institution
2. cultivating mutual compassion with them
3. working with them for mutual empowerment.

These principles are the basis for our action points in Sections 6.2 and 6.3.

6.1.4 Foundation in a listening culture

An essential part of the Quaker approach is that it involves us listening to each other, seeking understanding, compassion and mutual empowerment in our differences. So a Quaker-inspired SCP strategy would start by creating opportunities for people to listen and enter into dialogue.

One place that listening needs to happen, and constructive relationships built, is among EU Member States, and between Member States and the EU Institutions. But at the other end of the scale, transformation for SCP requires relationships to be built within local communities.

Engaging people and communities in an SCP strategy

Many people are either in denial about climate change, or have despaired of humanity's ability to respond. An effective SCP strategy would:

1. Enable everyone to learn about the science and other dimensions of climate change and our society's response to it

2. Provide everyone with opportunities to engage in meaningful dialogue (i.e. dialogue that includes listening, learning, and leads to mutual understanding, compassion and empowerment, resulting in action and change) with others in their community and with decision-makers in society

3. Encourage groups of people (local communities, workplace groups, faith groups and others) to provide mutual support and take collective action

4. Ensure that simple, practical information is widely available about the action individuals and groups can take, with experts on hand to address questions.

6.1.5 Engaging all the dynamics of change

Technology and economics have been the main focus of national government and EU policies. However most governments, and certainly the EU, have adopted measures for SCP that are often piecemeal and in conflict with other, higher priority policy areas. To be effective in bringing about technological and economic change, all policies need to work in the same direction. As argued by Federico and Tukker[62], this means that SCP strategy needs to be overarching. In contrast to the narrow focus of the SCPAP on strengthening existing product regulation and labelling policies, it would guide general economic policy (income tax etc.) as well as policies in areas such as employment (e.g. working hours), transport, energy, agriculture, industry, housing and education. It would also bring together different aspects of SCP, with policies designed to work both for GHG mitigation and for social equality and inclusion.

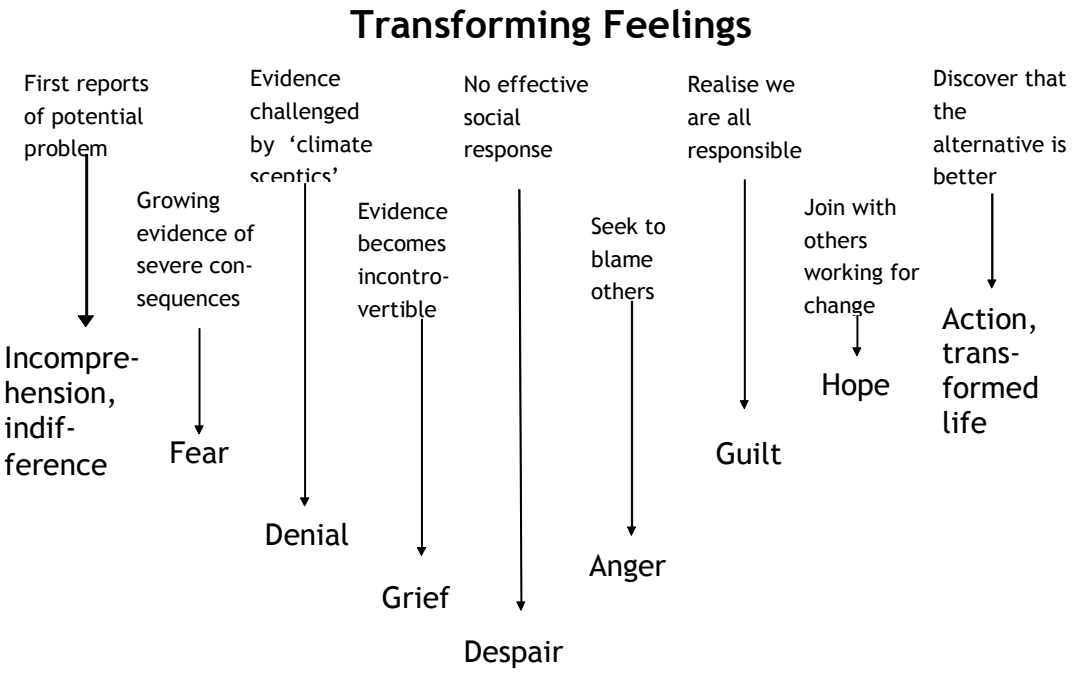
Psychology and culture seem to have been largely ignored in existing policies. People are mostly assumed to function either as 'rational economic agents' or as rather fickle consumers. Both government and environmental campaigning organisations have tended to assert that people will not respond to appeals to protect the environment for its own sake. Policies and campaigns have focused on connecting pro-

[62] Federico and Tukker, 2009

environmental behaviour with self-interest. For example, home insulation is presented mainly as a money-saving measure rather than as a moral imperative. However, there is a considerable amount of research showing that people do not respond to such messages but instead use them to justify their existing behaviour[63]. A recent report from WWF finds that people are more likely to change their behaviour if they are presented with arguments based on social and environmental goals rather than self-interest[64]. Another recent study found that one of the best explanatory factors in people's willingness to take pro-environmental action was their degree of personal connection with nature.

Where people are presented with many conflicting messages, they tend to hear only those that support their own existing positions and behaviour. Perhaps one of the greatest weaknesses of government policy with regard to SCP is that it is often contradictory. This is true of EU policies as discussed in Section 4. If governments wish to encourage behaviour change they will need to develop consistent messages backed up by consistent policies.

There is a growing movement in Britain working with the approach of Joanna Macy, which seeks to engage with the denial and despair with which people respond to climate change[65]. The 'work that reconnects' is grounded in Buddhist thinking and starts from the principle that people need to acknowledge their despair in order to be free from it. Working with Quakers we have found that this approach speaks strongly to some people (for whom the process of transforming feelings illustrated below may be relevant). Others need a different approach, starting with personal or political action, or with developing a shared vision for change.



[63] Hobson, Kersty, 'Competing discourses of sustainable consumption: does the "rationalisation of lifestyles" make sense', *Environmental Politics*, Vol. 11, No. 2, 2002, pp. 95-120

[64] WWF, *Weathercocks & Signposts*: The environment movement at a crossroads. (Godalming, England: WWF, 2008), available at www.wwf.org.uk

[65] Macy, Joanna and Young Brown, Molly, *Coming Back to Life: Practices to Reconnect Our Lives, Our World*, (Gabriola Island, B.C., Canada: New Society Publishers, 1998)

In fact, one of the strongest messages both from academic research and from Quaker experience is that people differ in their motivations and their preferred approaches to SCP. These differences can be ascribed to personality[66], to culture[67], and to people's particular circumstances and stage in life. Regardless of these variations, because material consumption has come to be used in our society as the primary medium for relationships and identity, any effort to change it threatens people's sense of self. SCP strategies need to understand this threat and ensure that spiritual and emotional support is available, as well as designing measures to work for different personalities and cultures. For example the table below shows how policies might be designed based on the cultural types described by Dake and Thompson[68].

Designing Interventions for Cultural Types

Cultural type	**Effective sustainability policies** (only those most characteristic of each type are noted here; many policies are effective for several cultural types)	**Emphasis in communication strategies**
Fatalist	Planning, standards, regulation and policing	Cost savings, e.g. through energy conservation
Hierarchist	Promote new social norms through regulation, fiscal policies, public procurement in schools and hospitals, etc.	Duty, moral obligation, preserving environment as heritage, taking care of children, grandchildren. Support for development of civic processes.
Individualist	Pricing, clear responsibilities backed up by law	Objective information on financial, social and economic implications of choices
Egalitarian	Encourage opportunities to develop green consumption (regulatory and fiscal support for niche markets and products)	Support to develop stakeholder processes and community reflection and dialogue about consumption and lifestyles
Hermit	Unpredictable: hermits tend to sidestep social norms and coercion unless there is no choice (well-designed combinations of measures are most likely to be effective).	Objective information on environmental, financial, social and economic implications of choices.

The key message arising from this section is that SCP policies should be made as comprehensive and consistent as possible. All areas of government policy need to carry the same message about the urgency of moving towards sustainable consumption and production, otherwise people will doubt the sincerity and integrity of the government and find ways of avoiding personal change. Different kinds of policy

[66] Csikszentmihalyi, Mihaly and Rochberg-Halton, Eugene, *The Meaning of Things: Domestic Symbols and the Self*, (Cambridge, England: Cambridge University Press, 1981)

[67] Dake, Karl, & Thompson, Michael, 'Making ends meet, in the household and on the planet' *GeoScience* 47 (1999) pp. 417-424

[68] Michaelis, Laurie, 'Consumption behaviour and narratives about the Good Life', in S. Moser and L. Dilling (eds.), *Beyond Message: Communicating Climate Change – Facilitating Social Change*, (Cambridge, England: Cambridge University Press, 2006)

(regulations, taxes, education etc.) are needed to engage people of different cultures, personalities, and in different personal circumstances.

6.2 Taking action

Society faces a huge challenge if we are to transform the spirit of the age. That spirit is manifest in our lives, communities and institutions. All kinds of action are needed. This means:

- Changing our own lives as individuals and households
- Making changes to the way we function as communities (including Quaker meetings, villages, towns, cities, nations, and the EU)
- Political engagement and working for action by all agents in society – business, faith organisations, trade unions, campaigning organisations, the media, local and national governments, and EU Institutions.

Just as the public are more likely to be persuaded to change if government policies are consistent, and politicians lead by example, policy-makers are likely to be more responsive to Quaker advocacy if we are already living the changes we wish to see adopted by others.

This section considers change in our own lives and communities. Section 6.3 considers how Quakers can best engage with the EU Institutions and Member State governments.

6.2.1 Changing our own lives

A starting point is to seek to be guided by integrity and by a sense of personal and shared responsibility. It is important to let our lives speak and share the experience of our personal journey, first with each other and then with those around us.

Once we are on the journey towards sustainable living (and aware that we are unlikely to arrive in our lifetimes), we will be able to communicate much more effectively with others. This means acknowledging our own frailty and the challenges involved in personal change – but also being willing to inform ourselves about our impacts on the world and the actions available to us.

The first step may be to evaluate our own carbon footprints and the options for reducing them[69]. As discussed in Section 3, British Friends report a wide variety of choices to minimise the environmental impacts of their lifestyles. Some of the most important practical actions include:

- Adopting very high levels of home insulation
- Getting used to lower temperatures (some Friends have deliberately acclimatised themselves to indoor winter temperatures of around 10-12°C)
- Reducing consumption of meat and dairy products and eating more organically grown, locally sourced and unprocessed foods
- Abstaining from car use and air travel.

Friends have found that lifestyle change is possible; that it is much easier with the support of an ongoing group; and that it can be a fascinating and joyful experience.

[69] A guide for UK residents is available at www.livingwitness.org.uk but figures will differ for other countries, depending especially on the energy sources used for power generation and on the housing stock

We have also found that it does not work to cultivate guilt, or to tell others what they ought to do. Most people expect to be made to feel guilty about their lifestyles – climate change denial is often a response to this. If we wish to influence others, it is much more effective to adopt a low-carbon lifestyle with as little fuss as possible, letting others see that it is viable and even brings greater well-being.

6.2.2 Changing our communities

The words and actions of people around us are of central importance in shaping the way we live – by reinforcing values, establishing what normal behaviour is, offering examples to each other, and sharing practical information. It is much easier to make lifestyle changes in a supportive group than alone. Some secular programmes have recognised this and work primarily with people in groups – notably the Global Action Plan *EcoTeam* programme, which has been used especially in the Netherlands, Scandinavia, Ireland and Britain. The Transition Towns movement, originating in the UK but now spreading fast internationally, is also focused on community development, support and action. Participants in Carbon Rationing Action Groups (CRAGs) make a commitment to reduce their collective, rather than individual emissions. This allows that within the group some may find changes easier in a given year than others. There may be years when one member of the group particularly wants to do something (e.g. visiting a relative abroad) that involves higher emissions than usual, and when other members can compensate by achieving greater reductions than usual.

Quaker meetings in Britain have been networked through Living Witness Project, which supports them in developing groups for learning, mutual nurture and action. Many Friends have also developed groups with others in their neighbourhood, or with local churches. Those working with the wider community have been very much strengthened by having a Quaker support group or network. The national network in Britain holds twice-yearly "link group" gatherings, and informal and local connections can also be vitally important.

Many Quaker meetings have developed ongoing sustainability groups. Individuals within a group usually want to follow different paths. Some may want to start by focusing on their own lifestyle. Others may want to get involved in practical projects such as tree-planting or in policy campaigns. It works best when group co-ordinators encourage and support this diversity, allowing participants to develop their own ideas and initiatives rather than pushing for a particular approach.

It helps to remember that simply organising a group will evoke feelings of guilt among Friends who do not participate, and to find ways of involving them in light-hearted and positive ways. The Oxford Quaker Group on Sustainable Living organised the New Year party for the Meeting several years running, including a cabaret with new 'green' songs written for the occasion. This played a key role in building a sense that the whole Meeting shared the values of the group.

Often, groups that start with one focus or another gradually broaden their approach (moving towards congruence of lives, words and actions). Over time, trust builds among those who keep coming to the meetings and in some cases, the groups have flourished. Friends' experiences are in many ways similar to those in non-Quaker groups (e.g. Transition Towns) and are applicable to working with local community, workplace or other settings. Features of some of the most successful groups are:

- shared leadership (two or three well-motivated people to animate the group and keep things going)
- a core of participants who know each other well and see each other often
- an inclusive, listening culture, valuing diversity in approaches and priorities, responsive to the interests of the group rather than trying to persuade people to follow a particular approach
- a mixture of activities – sharing spiritual journeys and feelings, spiritual practice, discussion, learning and practical projects
- regular meetings with shared food.

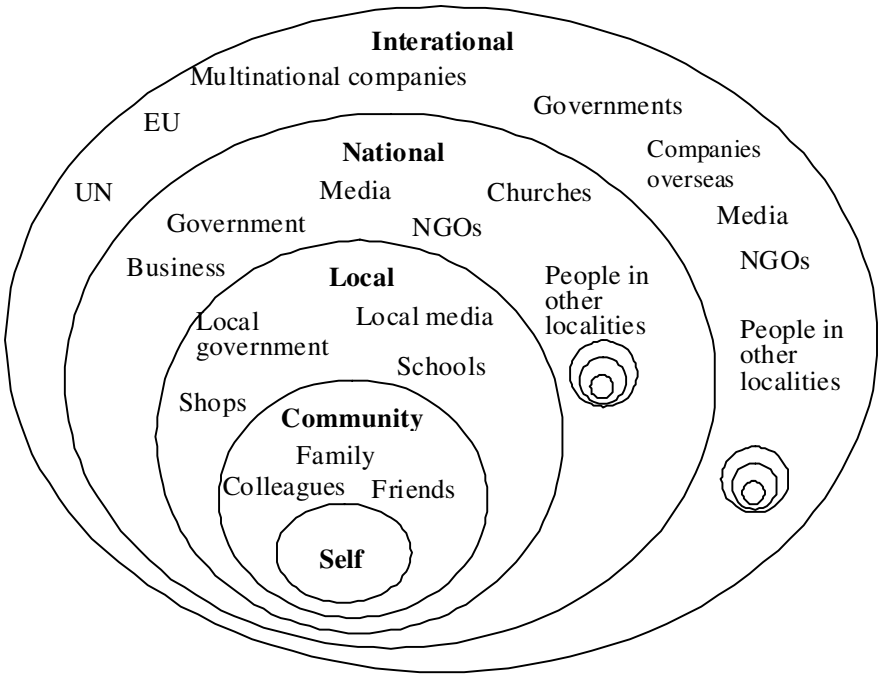
It works particularly well to have regular social/shared meal events setting up and hearing reports from smaller, short-term action groups (e.g. of 3 or 4 people).

It is also particularly important for individuals and groups to be engaged on multiple levels – their own lives, the Meeting, the local community, and seeking to influence local and national government. Sometimes getting involved politically can galvanise action in our own lives. The recent development of a corporate statement on climate change in Britain Yearly Meeting has led to a surge in activity among local meetings.

6.2.3 Influencing others

Section 3.3 noted the complex web of influences shaping consumption patterns. One of the difficulties in seeking to move towards sustainable consumption is that a large proportion of these influences need to change at once. However, some influences are more important, or have a wider reach, than others. Governments, manufacturers and retailers are obviously among the most significant, but the mass media also helps to shape the culture of consumption. Schools are a key player in that initiatives that they take to encourage children to cycle or walk, or to eat low-impact diets, can have long-lasting effects and can often influence the whole family. Similarly, employers have a considerable role in shaping employees' working environment. Habits developed at work – whether in recycling or in using air conditioning – are likely to translate to the home.

In considering the action you can take and the key players you can engage, it may be helpful to carry out an inventory of the institutions where you might have some influence. If you can do this as a Quaker Meeting, you may find that you have a surprisingly wide range of potential collective influence.



Taking Action: Multiple Spheres

6.3 Engaging EU Institutions and Member Governments

This report has been able to provide only an overview of the development of EU policies for SCP. Before engaging in policy advocacy you should do your own research, especially regarding the implementation of policies in your own country.

6.3.1 Quaker experience of effective political engagement

Quakers have tended to work most effectively in quiet ways behind the scenes – 'seeking truth with power' rather than 'speaking truth to power'[70]. Our approach is based in the call to answer that of God in everyone, including people in institutions whose activities may be part of the problem. Sometimes opposition is necessary, but it should be entered into reluctantly and with every effort to develop mutual understanding, compassion and empowerment.

Political engagement is most likely to be effective if it is based in the experience of personal change and supported by a strong community. Quakers in Britain have always had a close national network, sustained by gatherings such as Yearly Meeting and Meeting for Sufferings[71]. This has often enabled them to have surprising influence for their numbers. More Europe-wide networking may be one of the key steps needed to contribute effectively to EU SCP policy.

Action may take many forms:

- Direct engagement with politicians and civil servants at local, national and EU level, sharing our experience with them through letter-writing, personal meetings, participating in public and stakeholder meetings, and responding to formal consultations.

- Nonviolent action – which may be quiet and simple, e.g. holding a Meeting for Worship at the gates of a nuclear power station, or large scale, noisy and imaginative – e.g. some of the activities of the Climate Camp and Campaign Against Climate Change in the UK. Sometimes resonant or ironic imagery can be helpful.

Greenpeace Ark exhibition at climate negotiations, Buenos Aires, 2004 Photo courtesy of IISD/ENB-Leila Mead

- Joining with others working for change – adding our voices to theirs, participating in demonstrations etc. (however, this may be relatively ineffective and often involves taking an oppositional stance)

- Offering Quaker insights and experience within mainstream campaigning organisations and movements – e.g. to encourage their adoption of fully inclusive, listening-based and non-violent approaches

- Encouraging others in our community (Quaker, local, workplace etc.) to engage politically.

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[70] Andrew Clark, presentation to Britain Yearly Meeting on *Quaker Ways of Working*, 2007

[71] Meeting for Sufferings is the national representative council for Friends in Britain, including representatives of all Area Meetings

6.3.2 Engaging Policymakers on the EU Sustainable Consumption and Production Action Plan

There are several objectives in engaging national and EU political representatives on the SCPAP:

- Making them aware of your concerns so that they can represent you better.
- Making sure that they understand EU policy in this area and its strengths and weaknesses (see Sections 4 and 5). Asking politicians questions about policies can be an effective way of encouraging them to do their own research.
- Advocating particular policies. Our policy recommendations would be:
    - to ensure that the existing provisions of EU policies are implemented – i.e. that statements of principle such as CO_2 reduction goals are turned into concrete measures, and that EU Directives are implemented at national level
    - to work for stronger and more consistent policies within the current product- and production-focused approach, addressing areas such as agriculture where they are currently weak, and reforming policies that work against SCP, e.g. by encouraging material consumption and travel
    - to work for a broader and deeper approach to SCP in the EU, with much greater emphasis on the need for lifestyle change to reduce the consumption of energy and resources.
- Providing them with resources to work for such a shift in emphasis, in the form of your own experience and example of personal change and collective action.

6.3.2.1 Implementing and strengthening policies

Some of the main points on which to question your national representatives and advocate policy changes are:

- Asking about the development and implementation of your country's national action plan for SCP.
- Ensuring that the provisions of the Energy Performance of Buildings Directive and Energy End Use and Energy Services Directive are translated into national legislation
- Ensuring the effectiveness of this legislation – e.g. that building energy standards are as high as possible, that adequate provisions are made for monitoring and enforcement, and that there is a process to review and strengthen measures in the future
- Calling for stronger national policies to encourage the purchase of energy efficient appliances, supported by the EU Labelling Directive
- Ensuring that your national government's strategy for green public procurement follows European Commission guidelines[72] (i.e. ensuring that schools, hospitals and other public sector organisations use the most sustainable products and services)
- Developing national policies that complement EU policies, e.g. to achieve emission reductions in agriculture and to improve the energy efficiency of existing buildings.

A different set of issues might be raised with MEPs. They might include:

[72] See http://ec.europa.eu/environment/gpp/national_gpp_strategies_en.htm for a review of the implementation of Green Public Procurement in the Member States

- Asking them to draw attention in the European Parliament to the conflicts between EU climate and sustainability policies and those in other areas, in particular:
    - The continuing commitment to securing new fossil fuel supplies
    - The commitment to increasing cheap mobility
    - The need for more explicit environmental goals and measures in the Common Agricultural Policy.
- Asking them to work for a strengthening of existing policies, including:
    - Acceptance of the need for faster GHG emission cuts than have so far been agreed at EU level
    - The extension of the Energy Performance of Buildings Directive to address existing buildings.
- Asking them for details of the ways in which the Commission is monitoring the results of measures already implemented in the EU, and requesting the results of that monitoring.

6.3.2.2 Developing a much broader and deeper approach to SCP in the EU

It is in deepening and broadening the EU's approach to SCP that Quakers are likely to have most to contribute, especially in relation to equality and simplicity (see Section 5.3.2) and to the spiritual dimensions of the sustainability challenge (see Sections 3.4 and 5.3.1). The Council's comments on the SCPAP, inviting the Commission to pay more attention to sustainable consumption (see Section 4.1), might provide a useful starting point for approaching MEPs.

You might find it helpful to focus in your communication with representatives on the three areas of consumption that contribute most to GHG emissions and resource use: food, transport and housing (see Section 2), and the main steps that can be taken to reduce emissions in these areas:

- Shifting our diets away from meat and dairy towards plant-based products, and also reducing our use of food that is frozen, processed, and transported long distances
- Reducing our car and air travel, rearranging our lives so that we can meet most of our needs with non-motorised transport (walking and cycling) if we are physically able
- Changing our energy using habits: especially turning down the thermostat and only heating rooms when they are occupied.

All of these are controversial. You may not be willing or able to make changes in your own life. However, simplicity is part of our Quaker witness (see Sections 5.3 and 6.2). Finding out what steps we are willing to take ourselves and exploring the issues with others in a group (Quaker, Transition, Ecoteam etc.) can be the best preparation for talking to our representatives about the challenges involved.

There are several elements to politicians' role. We would call on them to:

1. Lead by example as individuals. This relates to the need for integrity: politicians and civil servants might find it easier to engage the public in the sustainability agenda if they were to exemplify the values in their own lifestyles and institutions. In particular this means abandoning large houses and cars and air travel as symbols of their own status and success.
2. Work for more sustainable consumption practices in EU and other government institutions, including reducing air travel, reducing the use of heating and air conditioning in buildings, moving

towards the provision of more sustainable food (organic, plant-based, local) in restaurants and canteens.

3. Work for the development of new EU policies to reduce GHG-intensive consumption, especially in the areas highlighted in this report: car and air travel, home energy, and meat and dairy consumption. As discussed in Section 6.1.5, such policies need to go far beyond the current information and education measures. There are many measures that would help to give a clear message about the urgency of lifestyle change, e.g.

    - Taxation of GHG-intensive products (cars, tumble driers, freezers)
    - Rationing of fuel and other GHG intensive products
    - Caps on personal GHG emissions (perhaps through a personal tradable quota system)
    - Changes in planning laws to reduce provision for cars and improve provision for non-motorised transport
    - Bans on advertising GHG intensive products
    - High profile campaigns in the media to encourage reduced energy use, car and air travel, and meat and dairy consumption
    - Funding for community groups and other initiatives supporting lifestyle change
    - Competitions offering prizes for innovative approaches to encouraging lifestyle change
    - Honours and awards for individuals and organisations that demonstrate the potential for change.

An effective strategy would include a comprehensive range of measures to encourage sustainable consumption by all people and groups in society, recognising that they vary considerably in their motivations and the kinds of influence they respond to. It is not fruitful to argue about the relative effectiveness of, say, taxes versus regulations. When the urgency of the sustainability challenge is recognised, we will want to do everything possible to respond to it.

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