

**CHURCHES TOGETHER IN CUMBRIA  
SOCIAL RESPONSIBILITY FORUM  
Conference 2005**

**GOING FOR GREEN:  
SUSTAINABLE  
COMMUNITIES**



**Thinking global, acting local  
for the future of the Earth**

**Saturday 8th October 2005  
St Thomas' Church, Kendal**

**CONFERENCE  
PAPERS**

## OPENING LITURGY

### Lancaster RC Diocese Faith & Justice Commission

Music: *The Lark Ascending* Vaughan Williams

Welcome and opening prayer

Images of creation

#### **Psalm 96**

O sing to the Lord a new song;  
sing to the Lord, all the earth.  
Sing to the Lord, bless his name;  
tell of his salvation from day to day.  
Declare his glory among the nations,  
his marvellous works among all the peoples.  
For great is the Lord, and greatly to be praised;  
he is to be revered above all gods.  
For all the gods of the peoples are idols,  
but the Lord made the heavens.  
Honour and majesty are before him;  
strength and beauty are in his sanctuary.

Ascribe to the Lord, O families of the peoples,  
ascribe to the Lord glory and strength.  
Ascribe to the Lord the glory due his name;  
bring an offering, and come into his courts.  
Worship the Lord in holy splendour;  
tremble before him, all the earth.

Say among the nations, 'The Lord is king!  
The world is firmly established; it shall never be moved.  
He will judge the peoples with equity.'  
Let the heavens be glad, and let the earth rejoice;  
let the sea roar, and all that fills it;  
let the field exult, and everything in it.  
Then shall all the trees of the forest sing for joy  
before the Lord; for he is coming,  
for he is coming to judge the earth.  
He will judge the world with righteousness,  
and the peoples with his truth.

## Response

Leader: O God, who called all life into being  
**All: The earth, sea and sky are yours**  
Leader: Your presence is all around us  
**All: Every atom is full of your energy**  
Leader: Your spirit enlivens all who walk the earth  
**All: With her we yearn for justice to be done**  
Leader: For creation to be freed from bondage  
**All: For the hungry to be fed**  
Leader: For captives to be released  
**All: For your kingdom of peace to come on earth**

(By Philip Newell, from the *Iona Abbey Worship Book*, Wild Goose Publications, 2001,  
© Iona Community.)

## MESSAGE OF SUPPORT

### **Councillor Jack Richardson, Cumbria County Council**

Good morning ladies and gentlemen. It's a real pleasure to be here this morning and have the opportunity to meet all of you and learn at first hand a little more about the Sustainable Communities Project and how the project is developing. I already knew of the project and was delighted when I heard the news that the project had picked up a national Green Apple Award for its innovative approach to helping people lead more sustainable lives. Winning this award reflects all the enthusiasm and hard work that each of you has put into the project.....so well done!

As cabinet spokesperson for the environment one of my concerns is that the County Council strives to reduce its impact on the local and global environment from its day to day activity. Our Action at Work Programme focuses on similar issues: reducing energy and carbon emissions; reducing water use; recycling and reducing office waste; buying products which don't damage the environment and finding ways to reduce the number of car journeys made by staff. I can see the similarities between what the Council is doing and the Sustainable Communities Project and although I can only stay a short time this morning, I'm hoping to pick up one or two ideas from the project which can be adapted and used in the County Council's Action at Work Programme.

Protecting the environment has been a major focus of County Council policy for a number of years. Persuading the public however that we all have a responsibility for the environment and duty to take positive action can at times be an uphill task. The County Council is anxious that the wider public reduces its impact on the environment. That is why the County Council is a key member of the Sustainable Communities Steering Group and that is why it will continue to provide support through our Local Agenda 21 Fund. The Sustainability Team will also continue to provide advice and guidance to the five communities.

I'm sure you will agree with me that Cumbria is a wonderful place to live and that we have a collective responsibility to ensure that future generations enjoy the same quality environment as we do today. In fact we should all be seeking to improve this quality so that our children inherit a better Cumbria.

The Sustainable Communities Project will clearly contribute to this process in the county. It's within communities that attitudes are changed, and that is what this project is all about. I passionately hope that the lessons being learned from the pilot communities can be transferred to other communities across the county in the months and years to come – a kind of green domino effect.

I will continue to keep a close eye on the project and the County Council will continue to support it. I'm sure working together in partnership will help us achieve our goals and in time make Cumbria itself a sustainable community. I hope that today's conference helps you take stock of the project and plan for a successful future.

# KEYNOTE ADDRESS: TO CARE OR NOT TO CARE FOR THE EARTH

**Sir Martin Holdgate**

## 1. The Issues

We know of nowhere else in the Universe inhabited by intelligent life. Statistics suggests that such places must exist, but they are irrelevant to the human situation today. We have only one Earth, and we cannot escape responsibility for what we do to it. And because humanity is part of the global ecosystem, the human future depends on how that system responds to our collective actions. If we care about that future, we all have to care for the Earth.

This conference addresses aspects of the process of caring for the Earth. While global action has to begin locally, because collective human impact is the integral of billions of personal actions world-wide, we need to act in awareness of the greater systems of which we are part. This keynote address therefore focuses on that big picture, and the nature of (and reasons for) the human impacts upon it. We need that analysis for it helps us to judge our priorities for action. It also helps us to see how millions of well-meaning actions could still fail.

## 2. Setting the Scene

Let me begin by setting the scene.

The Earth, like the rest of the solar system, is about 5 billion years old. It is a second-generation system, less than half as old as the Universe, and the heavy elements like carbon that are building blocks of life were created by nuclear processes in the final stages of a star that was formed, shone and exploded before the sun came into being.

The early Earth was lifeless and the atmosphere did not contain the free oxygen on which almost all life forms depend today. That free oxygen is a product of life, which began about 3 billion years ago but for over a thousand million years consisted only of simple life forms like bacteria and blue-green algae. The great diversification of life, leading to the perhaps 15 million species that inhabit our planet today, started around 700 million years ago.

Just as it needed the formation, development and final explosion of a pre-existing star to produce the elements of which both our planet and its life forms are constituted, so life today has been made possible by – and in turn helped to create - the special features of the planet. The Earth is at the right distance from the sun to have a temperature regime between plus 50 and minus 50 degrees Celsius. It has abundant water, and abundant elements capable of being elaborated into the self-sustaining structures we call living organisms. But its features today have been moulded by the interactions between the physical environment and the life that inhabits it. As I said, we can breathe oxygen because green plants release it. We can eat carbon-containing foods because plants

produce carbohydrates using the sun's energy to link carbon dioxide and water – the free oxygen being a waste product of the process. In turn, that oxygen is used to oxidise the carbohydrates and give energy, and this releases carbon dioxide back into the atmosphere. Not only is the carbon dioxide in the air cycled back to green plants for further photosynthesis, but it, water vapour and traces of methane are natural greenhouse gases – they trap radiation that would otherwise go out into space, making the planet some 30 degrees Celsius warmer than it would otherwise be. Yes, let me emphasise – most of the greenhouse effect we hear so much about is natural. Humanity has just topped it up. But all things are connected, and interdependent.

Life on Earth operates within ecosystems. Ecosystems are interacting networks of plants and animals, together with their physical environment. The sun's energy, water and CO<sub>2</sub> are used by green plants to produce carbohydrates. These are consumed by herbivorous animals, in turn eaten by carnivores, and the loop is closed when carbon dioxide is released back into the atmosphere in respiration and dead organic matter is broken down by decomposers, returning elements to atmosphere, soil and water.

Humans are part of the ecosystems of the Earth. Like all organisms what is physically unique about us is not our bodies – which change through life and are in continual elemental interchange with the world about us – but our patterns, defined especially by our DNA. Evolution is a process whereby the patterns of life are developed, driven by competition because all living things produce more offspring than there is room for in the ecosystems of which they are part. This is Darwin's 'struggle for existence' and 'survival of the fittest'. Between 95 and 98% of all the species that have lived on Earth are now extinct – but all today's life is in organic continuity with past life because its DNA has been derived from its ancestors. Think of all life as a series of strands, interlinking and fanning out as they weave a strange and wonderful web down the millennia. Again let me emphasise. Life is pattern, and the physical universe is pattern, unfolding under the guidance of fundamental laws which yet leave space for apparently chaotic and indeterminate processes. Somewhere within this wonderfully simple complexity we may glimpse what we might call 'the Rules of God'.

Life on Earth has not however been without disruption. The fossil record suggests that there have been at least six great extinction spasms during which up to 75% of the species then existing disappeared. The latest, though not the biggest, was about 66 million years ago when the great sea reptiles we call ichthyosaurs and plesiosaurs, the last of the great land dinosaurs, and maybe 75% of marine life in the shallow seas and 60% of the plants on land became extinct. We can only speculate about the cause: some say a massive meteor impact, some a massive volcanic outburst, some climatic cooling and the flooding of coastal areas by the sea. All could be inter-connected, for a meteor ten kilometres across falling in the sea would throw up a wave the height of Mont Blanc, inundate most of the world's coastlands, trigger crustal movements and eruptions and throw up so much dust that it would screen out the sunlight for months, causing cooling and massive plant and animal death. The important point is that any massive disruption to part of the global ecosystem has knock-on effects on other parts. All things are connected. The other

important thing is that despite these upheavals, life and its environment have had continuity for billions of years.

### 3. The Dominance of Humanity.

Today, people say that we are living in another extinction spasm – one due to people. If so, it is a recent phenomenon because humans are the last major product of the creative process. And a unique one, for our species is what is called pan-dominant. That is, it is the top animal everywhere. Within the past 50,000 years or so modern humans have settled all the world's continents except Antarctica, have increased in numbers from a few hundreds of thousands to a staggering 6 billion – 6 thousand million – and have transformed ecosystems over the entire planet. Today humanity diverts to its own use (or that of its livestock) – or wastes – about 40% of the total production of green plants over the land surface of the planet. As a result of the destruction of habitats and displacement of other species, extinctions are running at between 1,000 and 10,000 times the natural rate.

There is nothing illogical about the ways humanity has changed the planet. Our earliest ancestors hunted and gathered – plants, roots, grubs and small, catchable animals – much as chimpanzees still do. Tools allowed bigger and meatier animals to be hunted, and fire aided the hunters by helping to drive them into ambush. There is evidence that when hunting people arrived in new areas, big animals like mammoths, mastodons, giant elk, giant Patagonian ground sloths or the giant moas of New Zealand (all of which would have had low reproductive rates) disappeared. We know that people exterminated the moas of New Zealand.

But people developed two cleverer tricks than that. First, probably in the 'fertile crescent' of Syria and Mesopotamia, they learned to grow cereal crops (other people learned the trick in parallel in other regions). Second they learned to keep medium-sized animals – always species with a wide food spectrum, including ability to graze on grass, where humans could take over the role of herd leader. Milk, blood, meat and hides then came under human control. But early farmers didn't like competition, so very sensibly they killed off predators like wolves that ate their stock and wild herbivores like buffalo that guzzled their crops and pastures. As their numbers grew they cleared forest, which they and their herds mostly couldn't eat, in favour of pasture and cropland. The processes of deforestation, swamp drainage, and elimination of big wild animals so deplored by wealthy conservationists today is a rational one and has been at the heart of human success. Farming produced food surpluses which allowed many non-farmers to live in cities, develop other skills and make a multitude of products. Civilisation – the word, after all, means 'city life' – was made possible by agriculture.

And even conservationists must admit that civilisation has brought immense benefits. More and more people have been enabled to escape from the grind of subsistence living. Energy and water supplies, housing, clothing, food security, education and employment have benefited billions. Medicine has extended human life. Some diseases like smallpox have been eradicated and we hope to eliminate others like polio.

So, why don't we all live in a Utopian paradise? I put it to you that it is a matter of scale, false assumptions and flawed civilisation. The damage to the global environment and the threats to the human future – for example from climate change – are symptoms of overshoot and overkill. Symptoms, if you like, of the lack of regulatory and constraining feed-back loops in human society. Defects which have been tolerated, and at times aggravated, by failure in the human belief systems that we call religions.

As human numbers have grown and material comforts for billions – though far from everyone – have increased, so people have taken over more and more habitat, altered more and more ecosystems, and built up ever-greater impacts on the biosphere which are now causing extinctions world-wide and affecting global processes, yet are not being controlled. Humanity is either already unsustainable or in danger of becoming so. And I mean that literally. Famine, disease and conflict could very easily destroy many of the advances we cherish, leaving an impoverished and degraded planet – or leave the world even more unequally split between rich and poor than it is today.

Humanity has taken up a sword of power and could perish by it. Collective humanity now has such dominion over the Earth that it has only two choices: to regulate itself and its impacts, as the caring manager of the planet, or accept the controls of natural laws. We can choose – in John Polkinghorne's phrase 'to co-create the future with God' – or we can accept the fate of animal species to whom awareness and wisdom has not been given. Or, indeed, a worse fate, for virtually all animal species are regulated by natural processes, often involving sophisticated behaviour patterns, which keep their numbers within what some ecologists call the 'carrying capacity' of the environment. A modern-day writer of Proverbs might indeed exhort us to 'go to the wolf, consider her ways and be wise!'

I am not an unreformed Malthusian, and of course accept that human wisdom and skill has allowed the planet to sustain more people than the Reverend Thomas Malthus ever imagined, with a standard of living for billions undreamed of in his time. I accept that human wisdom today *could* so manage the ecology of the planet that all today's six billion humans *could* be removed from the degradation of poverty and disease and be given a quality of life we privileged rich people – for everyone here is rich by comparison – take for granted. Indeed, I believe that good local, national and global management, including real help from community to community, *could* give a tolerable quality of life to the additional three billion people that are certain to be added to Earth's human family by 2100. But I do not believe that these desirable – these essential – things *will* happen without a transformation in human actions, inspired by a shared conviction which must grip all faiths. I believe very strongly as an ecologist that continued runaway escalation in the human population of the Earth will bring an escalation of misery, social degradation, war, famine and other truly apocalyptic horrors. I believe that global humanity has one generation in which to get it right.

#### 4. Climate Change as a recent example of the problem

I was asked to talk about climate change as the most topical of global human environmental impacts. I will do so for it provides a good example of both the problem and the human dilemma.

As I said ten minutes ago, the Earth has a natural greenhouse effect. That is, the water vapour, carbon dioxide and small amounts of methane in the atmosphere act as the glass does in a greenhouse, trapping some of the radiation that would otherwise pass out to space and keeping the planet about 30 degrees Celsius warmer than it would otherwise be.

Over millions of years the amount of greenhouse gas – especially carbon dioxide – in our air has fluctuated. Over the past million years it has gone up and down in step with the Ice Ages – low CO<sub>2</sub> means a cool earth and high CO<sub>2</sub> a hot one. But over the past 200 years, since the industrial revolution, human industrial societies like ours have been powering their factories, generating their electricity, heating their homes and driving their cars largely using coal, and later oil and gas. These are ‘fossil fuels’. They were laid down millions of years ago when peaty, swampy forest remains were trapped in the rocks and hardened into coal or oily sea creatures were trapped and became oil. We are now putting the carbon they contain back into the atmosphere faster than the natural sinks – the seas and green plants – can mop it up. There’s about twice as much carbon dioxide in the air today as there was at the start of the industrial revolution. Inevitably the greenhouse effect is being peppered up and the world is warming. You can’t put another blanket on your bed and not get warmer. And feed-back loops threaten aggravation, for warming the poles thaws permafrost, and this means release of methane which is a much more powerful greenhouse gas than carbon dioxide, while dissolving carbon dioxide in the sea acidifies the waters and kills coral reefs – the most productive ecosystems in the oceans. Warmer seas also expand, raising sea level, and melting land glaciers like those in Greenland aggravate that process. And hotter systems are more energetic, so we can expect more and greater hurricanes.

The best projections today are that we are inevitably committed to a global warming of about 2 degrees Celsius by the end of the century, and a sea level rise of half a metre. If nobody did anything, just burning every tonne and barrel of fossil fuel they could get, by 2300 the world might be 8 degrees warmer and the seas a metre and a half higher and set to go on rising for three centuries. A one degree rise in temperature moves the zones in which a species can live or a crop plant be grown by about 120 kilometres towards the poles or 130 metres up a mountain. You can see that two degrees means a big shift in the patterns of farming and natural vegetation – and the rate of change is faster than many species can disperse without human help. It is a non-trivial scenario.

Yet we have to remember that these effects are the consequences of a social process we and our ancestors have seen as logical, beneficial and indeed essential. It is abundant cheap energy that has powered industrialisation and brought so many of the benefits of modern civilisation. It is still desperately needed in the poorer countries if they are to

develop their people out of poverty and build that growth in education, medical care and employment that experience shows to be the best stimulus to the voluntary regulation of human numbers. And herein lies the dilemma. For example, China and India together support more than a third of all the people in the world, including millions of truly poor. They desperately need to continue the development process which they have embarked on with real success in the past half century. But they also have the biggest coal reserves in the world. Can you expect them to deny themselves and their people the benefits their use could bring?

We here, today may be looking at aspects of our energy situation. We are to look at energy conservation – good, there is a lot of scope for it, here and throughout the world. At recycling and waste minimisation – again good, though it need not bring energy savings. At nuclear power – yes, at least the power stations, once built, do not emit greenhouse gases. But please look at the big picture. The United Kingdom contributes 2% of the carbon dioxide added to the atmosphere annually through human agency. The European Union contributes 22% and the United States 30%. Halving our dependence on fossil fuels by 2050 would bring global emissions down by about 1% at maximum. By then Chinese development would almost certainly put in far more CO<sub>2</sub> than we took out. If they used this energy to expand their manufacture, at low cost, they would reap great benefits in terms of wealth, standard of living and power. Some will argue that there is no point in altruistic Europe beggaring itself in the name of sustainability.

I do not share this negative view. But I do stress that if humanity is to solve this problem, it must be through *global* action. We can set an example, maybe, but global success will depend on inspiring societies throughout the world to cut their emissions – and given the development imperative, on finding a way of supplying cheap energy in the developing countries without using fossil fuels and without having other negative environmental impacts.

## 5. Back to the Big Picture

Let me conclude by coming back to the big picture.

We are immensely blessed to live on a beautiful, productive planet rich in life forms whose patterns have unfolded over many millions of years. We stand here as members of the only species on the planet, and indeed the only living thing we know for sure to exist in the universe, that is capable of understanding, debating and regulating its own activities for the benefit of others. This is something humanity has not always been very good at. Humans have too often been selfish, jostling to secure as much as possible of the resources available in the short term, damning the consequences for other communities and for the next generation. But we *know* that such attitudes are wrong, and we here, as professed believers in a God under whom we are stewards of the Earth, must certainly reject them.

But our planet is none the less reeling from the impact of ever more powerful perturbation by global humanity. We now corral in one way or another 40% of the

productivity of green plants on land. Vast swathes of tropical forest, the most diverse ecosystems on Earth, are still being transformed to poor pastures, oil-palm plantations, impoverished secondary woodlands or even eroding scars. Desertification is taking 70,000 square kilometres of pasture and irrigated cropland each year. Cities are sprawling over the fertile farmlands of their hinterland. Species are being driven to extinction at many times the natural rate. And now global warming threatens to alter the whole pattern of habitats for ourselves and other species.

The big picture is one of interdependence and interaction. Everyone alive today depends on the ecosystems of the planet for breathable air, tolerable climates, food and water. It is the collective actions of over six billion humans that have transformed the planet to its present state, and humanity now has so profound a collective influence that our species cannot escape the alternative role of steward or destroyer. I do not think that we can duck the clear implication that there has to be a regulation of human numbers, exercised lovingly and through forbearance and choice. That fact - which I know it is much more comfortable to evade - seems to me to be an inescapable consequence of the natural laws that govern the physical and ecological world.

We need to care for everyone. Of course today's massive poverty and the scourge of disease that kills thousands of children needlessly every day should make us angry and frustrated. Of course everyone needs to try to adopt a life style that fits the essential ethic of care for the Earth and its people. What can drive global stewardship for global sustainability? I believe we were right to start *Caring for the Earth*, the second World Conservation Strategy which we wrote in 1991, with an emphasis on ethics: on the need for a new environmental ethic of care for the earth and the people it sustains. For what people do derives massively from what they believe.

Of course we need to go beyond ethic and belief and turn them into practical action. But our actions need to stem from the real situation and not be just displacement activities giving us a feel-good factor that we are doing something. It is wrong to be daunted by a sense of powerlessness, but I do ask you to think, as you consider practical actions today, what the deeper beliefs we share are contributing to the biggest picture of all.

## **GLOBAL FOOTPRINTS ACTIVITY: HOW BIG ARE YOUR FEET?**

**Trish Sandbach, Leeds Development Education Centre**

The idea of calculating the ecological footprint of individuals, towns and whole countries has been around for a number of years. The activity we will do is based on work done by a group of Canadian scientists. It measures people's natural resource consumption. The footprint needs to be compared with the Earth's ability to renew these resources.

A country's footprint is the total land area required to produce the food, the wood and fibre needs, and the energy it uses, to absorb the waste and pollution from it, and also to provide space for its infrastructure. Since we consume resources and services from all over the world, the footprint is the sum of all these, wherever we live on the planet.

Each of the posters has a heading - holidays, heating, electricity, water, food, waste, transport, paper. You are invited to look at each pair of posters relating to each heading. They give the player a choice of a high score or a low one; you choose the best fit for your life style. You can also choose a score somewhere between the maximum and the minimum. The resulting sum gives you the area of land in hectares. Do you tread lightly on the Earth or trample with hobnailed boots?

*The activity was then undertaken by all delegates.*

The UK has an average footprint of 5.4 hectares per person (i.e. a score of 540 on the activity). Kenya's is 0.9, the Gambia 1.1, Ethiopia 0.7, India 0.8. Significantly it underlines the injustice of the lack of access to resources by the world's poor: we are 20% of the world's population and consume 80% of its resources; create over 70% of the world's pollution in the face of half of humankind living on less than £1.50 a day. What is abundantly clear is that we in the Northern hemisphere are living unjustly and unsustainably- the Earth cannot renew itself at the high rate at which we are consuming and polluting. Global warming knows no boundaries. We have a growing 'overshoot', 20% over the Earth's capacity, most of which is caused by the Northern hemisphere.

This is not a guilt trip: it is a call to action at various levels, maybe starting with oneself. The litany of Respect, Reflect, Reduce, Refuse, Repair, Re-use, Recycle needs to be close to our hearts and heads. Obviously there is work to be done at the political and economic levels as well. Engaging governments and big business is difficult but essential. There are hard choices to be made but as Ed de la Torre, an activist in the Philippines, said:

*'If not you, then who? If not now, when?'*

## **KEYNOTE ADDRESS: PRACTICAL ACTION WHICH WE CAN TAKE, AND THE THEOLOGICAL BASIS FOR IT**

### **Bishop John Oliver**

It is a great pleasure and privilege to be here today and I am very much encouraged by the excellent attendance. I have been asked to speak briefly about the theological basis for Christian concern for the environment, and then to look at practical action which can be taken, at different levels -

- International
- European
- National
- Regional/Local
- Individual

I ought perhaps to say that my qualifications for being here are not very impressive: I took on the environment portfolio on behalf of the Bishops when I took my seat in the House of Lords at the end of 1996, and continued to try to speak on that subject during my seven years in the Lords. In practice I found myself speaking rather more often about agricultural and rural policy, since those years embraced the problems of country people which included BSE, swine fever, foot and mouth and a dramatic decline in farm prices.

But let me start with the fundamental principles underlying Christian concern. The whole human race needs to be profoundly concerned about the environment, and about the crisis which faces us now, but Christian people need to be especially aware of the motivation for taking action. Most people here today are committed Christians, members of local congregations, and I think it is important we understand why theologically we have to be so deeply concerned about environmental matters.

The first important principle is that the whole creation is sacramental. Most of you will remember the traditional definition of a sacrament - an outward and visible sign of an inward and spiritual truth. When the Bishops met at the Lambeth Conference in 1998 they emphasised this and three other basic principles. We can know God through his creation, which expresses his presence, his power and his love. As human activity can be sacramental, for example a handshake showing that the hand contains no weapon and is offered in friendship, or a wedding ring showing that the person is committed to another in marriage, so the sacramental nature of creation means that all of it is holy, to be treated with reverence.

Secondly there is the important principle of the covenant which exists between God and humanity. The critical locus for this is Genesis Chapter 9 which is very much more important than the better known Genesis 1v28, which speaks of man having 'dominion' over the rest of the created order, as though humanity is all that really matters. By contrast the covenant spelled out with Noah in Genesis Chapter 9 is emphatically with the whole of creation. God is involved with the whole of his creation, and all of it is valuable. I quote from the Lambeth Report: 'While a creation covenant is founded upon God's

promises, like all covenants in scripture it also assumes human moral responsibilities, including ecological responsibilities. While the covenant in no way legitimises a crass anthropocentrism, human beings are given a special place in mediating the divine promise and intention to other human beings, to future generations, to other living creatures, and to the earth as a whole. Contempt for creation is therefore sin, a betrayal of the covenant and the trust reposed in human beings to till the earth but also to keep it.'

Thirdly the Lambeth Conference goes on to speak - rather daringly - of human beings as 'co-creators' with God. Part of what is meant by the truth that humanity is made in the image of God is that we, uniquely among the whole created order are self conscious beings; we know about the past, we are aware of the future, and we can plan for it. God has entrusted us with this huge responsibility - we have freedom, but with freedom comes great danger. We have to make fundamental decisions about how we use that freedom, not only for ourselves but for the whole of creation and for succeeding generations.

Fourthly there is the Sabbath principle, the principle of 'enoughness'. The crown of creation is not the making of humanity on the sixth day, but God resting on the seventh day. This emphasises the importance of the principles of rhythm, of the land lying fallow, but it runs directly counter to the 24/7 culture of today, with its enormous emphasis on materialism, acquisitiveness and non-stop growth.

There is much else that could be said about the theology of creation, but I believe that these four principles are ones which all Christian people should understand, accept and use as a basis for their own action and for political agitation to help set forward responsible environmental principles throughout the world.

So we turn to practical action:

### **1. At the International Level**

We have to be grateful that the Rio Conference in 1992 did set up the United Nations Framework Convention on Climate Change and out of that came the Kyoto Protocol. It is limited, it is flawed, it is inadequate, but it is much better than nothing. It has been bitterly criticised, not least by the United States, because it does not involve the developing countries, but simply requires sacrifices to be made by the most developed nations. This is perfectly logical, since the developed nations have been major culprits in inflicting severe and increasing damage on the environment, and it is no more than just that these countries should in the initial five year period (2008-2012) make the initial contribution to solving the problems they have created. But that is not to say that Kyoto should be replicated in the future; it is absolutely essential that a post-Kyoto strategy be developed which embraces all nations in the world, and the most satisfactory theory put forward so far is that propounded by the Global Commons Institute, which is called Contraction and Convergence. The basis of this is that every single human being in the world should be given a ration of carbon, a certain permit to pollute, and that should have a precise financial value. This means that those who are not using up their carbon ration can sell it to others who have not yet managed to contract their own carbon footprint to the point at which it is at a tolerable and sustainable level. Contraction and Convergence

is in practice a massive, worldwide and comprehensive emissions trading scheme. Some people reject it as utopian, impossible; it would be exceedingly difficult to introduce it, but it seems to me that this is the basic scheme which must underlie a post-Kyoto strategy. The enormous increase in energy use by developing countries, notably China, India, Brazil, means that they must be included in any future targets. For example, China is planning to build 544 new coal-fired power stations: the number of cars in China by 2010 will be 90 times the number in use in 1990, and in India it will be 36 times the number in use in 1990. The colossal emissions created by this dramatic industrial development must be curtailed, and can only be curtailed if all nations sign up to a scheme which is going to involve sacrifice on the part of everybody. But Contraction and Convergence would give enormous financial help to the poorest countries in the world, and would help greatly towards equitable development.

## **2. At the European Level**

It may seem that the EU is not outstandingly virtuous in terms of environmental standards and objectives, but there have been some notable achievements, and European nations working together can do much more than is possible by individual nations on their own. In terms of conservation there has been the birds directive in 1979 and the habitats directive in 1992. The EU has put forward ideas of Special Areas of Conservation and although no member states have yet submitted comprehensive lists, it is clear that biodiversity can be dramatically improved by European action. It also seems to me that it is at the European level that significant steps could be taken to contain air travel, by introducing an airline tax or tax on aviation fuel, even if other nations in the world are not yet prepared to do so. Somebody has to start, and if the EU began with united action, it is at least possible that other non-EU European nations (such as Switzerland) would sign up, and the pressure on other nations would gradually bring them in to the same system.

## **3. At National Level**

At national level we have a great deal to do, and we need to pursue relentlessly our Members of Parliament in particular, to make sure they put environmental matters at the top of their agenda. In 2003 the government produced an energy white paper, which set out the admirable target of reducing CO<sub>2</sub> emissions by 60% by 2050, but gave no clear indication of how it would get there. Our energy policy is in great confusion at the moment, with no security of supply secured for the future. We do need a diversified range of energy sources, and there is clearly scope for a considerable increase in renewable energy, notably biomass. I do not wish to enter into the raging argument over wind power, which I know is a very sensitive issue here in Cumbria, nor of nuclear power, which also has its powerful protagonists and its opponents in this part of England. I personally believe that we need both, small scale wind in some non sensitive locations and nuclear power as baseline power to supplement gas-fired and coal-fired power stations. There is scope for clean coal technology, and it is interesting that the Foreign and Commonwealth Office is supporting a carbon capture and sequestration plan for a Chinese coal-fired power station, although no such plans exist for the coal-fired stations in Britain. We need to maintain the pressure on politicians to address energy issues above all others in this context, and to take seriously the increasing emissions of transport, especially aviation.

#### **4. Regional/Local Activity**

There are good initiatives being taken by many local authorities, and it is encouraging to see how much is being done locally here in Cumbria. We shall be hearing about some specific projects this afternoon, but let me also mention what has been achieved in Woking, where dramatic energy saving has taken place, and also in Shropshire, where I am involved with the Marches Energy Agency. I have a number of leaflets setting out the Shropshire programme, and I shall be glad to distribute those to anyone who would like to take them, particularly those involved in local council work. If I may very briefly summarise the principles behind Shropshire's action they are that partnership working is essential: there is no one single body which has all the answers to climate change or can bring about necessary development. The county has a corporate climate change strategy, and involves community engagement, for example through the Women's Institute (Women's Institute for Sustainable Energy: WISE), Bishop's Castle undertook active de-carbonisation, as a result of which 80% of the inhabitants of the small market town of Bishop's Castle in South Shropshire have signed up to serious efforts to reduce their energy use; and there are congregations for a low carbon future, because it has become clear that Christian congregations are most likely to be responsive to an appeal to take these issues seriously. There have been local achievements with renewable energy, with a ground source heat pump at a rural primary school, and the introduction of climate change curriculum in primary and secondary schools in Shropshire; there is a bio-diesel fuel project, based on re-using waste vegetable oil from fish and chip shops; there is a scheme to make Park Homes (bungalows and super-caravans) very much more environmentally efficient, and there is a solar heating project for some new housing built by South Shropshire Housing Association; there are sustainable transport initiatives, with the county council buying both electric and hybrid vehicles, and rationalising the routes taken by refuse collection lorries, mobile libraries and so on. That gives you a very good insight into the wide-ranging and imaginative things going on in another rural county.

#### **5. Individual Action**

Every single one of us can make a difference, in particular by our use of energy. Our housing can be better insulated, we can turn down central heating, we can use low energy light bulbs, we can turn off our devices which are habitually left on standby. In terms of transport we can walk, cycle and use public transport whenever possible. We can share cars; above all we can refrain from flying. Aviation is the most damaging of all transport activities in terms of CO2 emissions and impact on the climate, and we have simply got to stop flying in the promiscuous and unnecessary way which has been encouraged by low cost airlines. The one exception to this, perhaps, is that if we allow ourselves one long-haul flight from time-to-time, then it should be for the purposes of eco-tourism; the fact is that the survival of some of the threatened species can probably only be assured if there is an economic rationale for keeping them and that is provided by tourism by people who really care about the welfare and survival of those species. We can recycle as much as possible, but thoughtfully and just occasionally recognising that the energy used in recycling is more than the energy used in the initial manufacture, for example on paper. We can shop responsibly, above all concentrating on local food, which is not bedevilled by food miles. Remember that fair trade is for our farmers too.

There are many important and useful resources. Let me mention in particular the material provided by Operation Noah, sponsored by Christian Ecology Link; let me particularly recommend the book How can we Save the Planet by Meyer Hillman, (Penguin 2004, ISBN 0-141-01692-2). Another remarkably enjoyable and interesting book about one significant individual's contribution to biodiversity is Norman Moore's Oaks, Dragonflies and People (Harley Books 2002, ISBN 0-946-58971-2) which describes the creation of a nature reserve and pond in unpromising dull countryside in Cambridgeshire, with quite spectacular increases in biodiversity. Doctor Moore also sets out in this book the principle of 'future care politics' which is a good phrase for the kind of policies we need to see which take seriously the future implications of our present actions. The tasks before us are enormous, but the fact that so many people have some together today to think seriously about them and then to go out and take appropriate action is enormously encouraging.

P.S. Frivolous postscript: There has been some mention in discussion about Romans Chapter 7, the famous passage in which Saint Paul wrestles with the fact that he knows what he ought to do but finds himself always doing something different: 'For I do not do the good I want, but the evil I do not want is what I do'. Let me give you a personal example of this. For a long time I have had a very fast, extravagant but exciting motorbike, which will do 145 miles an hour, but only 35 miles to the gallon. I knew that I ought to get rid of it, but I have only just managed to do so. Can I bear to live with a bike which is smaller, slower, and less interesting? I finally decided that it would be all right if I had one that had real 'character'. So I'm going to get a Royal Enfield Bullet, which is re-imported from India, having been produced in Britain until the 1960's, when the Redditch factory went bust. Is this a good idea? Well, it does 80 miles to the gallon, and only 80 miles an hour. It is giving jobs to Indians, helping them to develop their engineering economy, which must be a good thing. But then it requires a lot of motorbike miles to bring it by container ship from India to England. Oh dear! Perhaps it is a case of the lesser evil...

## SUSTAINABLE COMMUNITIES PROJECT: INTRODUCTION

### **Dr John Biggs, Chair of Sustainable Communities Project Steering Group**

In the autumn of 2003 the Social Responsibility Forum expressed a concern that churches should be taking a lead in local communities, and in January 2004 the Revd David Emison, then President of Churches Together in Cumbria, called together representatives of the statutory and voluntary bodies, and of the churches in Cumbria, to explore our mutual concern for the environment.

A Steering Group met in May 2004 under my chairmanship. The guidelines were to raise awareness of energy-saving, recycling, environmental impact of lifestyles, transport, and food miles, and to generate motivation and provide opportunity. It was recognised that the sensible way forward would be to identify a few well-defined communities that would be willing to serve as pilot projects, and at an early stage the County Council agreed to ring-fence a grant of £5,000 over two years to fund such projects, drawn from its Local Agenda 21 funding.

We began to identify those who would be interested in the projects, many of them contacts of the churches, and we invited them to Gamblesby Village Hall for a morning in November to outline our ideas and discuss possibilities. The hall was chosen because local community volunteers had renovated it with fleecy cavity insulation and under-floor heating powered by a heat pump extracting heat from under the car park, and they were able to tell their story. Those present were invited to submit plans by mid-January 2005.

Four groups made submissions: these were all judged viable, and so these became the four pilot projects over a two-year period. There was an added advantage in that they represented four totally different types of community and location:

- Brampton, a town of 2,500 households.
- Arthur Street, Penrith, a street of about 60 houses.
- Grasmere, a village of 500 houses but half of which were second homes
- Kirkby Lonsdale involving the town and surrounding villages covering 1,000 homes, based on the Anglican team parish.

Each pilot was given £100 for immediate costs, with an offer of up to a further £900 to support projects which had gained approval. Each was allocated an advisor from within the Steering Group, and this professional help has made a significant contribution in giving guidance and making contacts. It is through the advisors that the projects are held together.

An independent group centred on Hawkshead also asked for advice, and during the summer of 2005 became active as Esthwaite Green Link: because of their considerable initiative they were incorporated as a fifth pilot in September.

Four full-colour leaflets were prepared: *Waste, Energy, Transport, and Taking Environmental Action Locally*. A fifth on *Water* was prepared, but a leaflet became

available from United Utilities when we received a supply of ‘water hippos’ from them. We also received a large supply of energy-saving light bulbs, and each pilot was given a plastic banner for use at public events.

Phil Davies of Eden Local Agenda 21, applied for, and received, a significant grant in matched funding from the DEFRA Environment Action Fund in January 2005, covering three projects over three years, one of which is Sustainable Communities. This has enabled the appointment of Richard Suddaby for four days a week; half of his time is given to Sustainable Communities, and the grant has considerably enlarged the pool of finance available.

We have also received massive help from the Cumbria Energy Efficiency Advice Centre. In a programme extending from summer through to autumn households are receiving Home Energy Checks, a self-audit of energy use and conservation within a household: on its return a certificate is sent giving an energy efficiency rating and advising what grants, discounts and free materials are available. There are offers covering insulation and energy-efficient light bulbs, and even a limited number of subsidised or free solar panel water-heating systems and air-derived heat pumps providing central heating.

Sustainable Communities has taken off on a scale that few of us who were in at its beginning could have imagined. Not everything has gone smoothly: there have been setbacks. By contrast, there have been times when we have been running to catch up with all that is happening. There is an enormous profit in combining professional expertise and the facilities and funding present in the statutory bodies with the enthusiasm of local groups of people who, perhaps for the first time, realise that given the necessary contacts and know-how, help is available to achieve some of their dreams in improving and preserving the natural environment and generating a sense of communal responsibility.

### **Richard Suddaby, Sustainable Communities Project Officer**

Speakers from the communities are going to talk about some specific projects, so I am going to talk in slightly general terms about where we are with the Project. However, hot off the press, we have the first Cumbria Sustainable Communities Project newsletter, which contains lots of great contributions. You can take one away afterwards – and please share your copies around.

There are many underlying principles behind the Project. Some of these can be summed-up as four E’s, **Engage**, **Encourage**, **Exemplify** and **Enable**. These feature in the Government’s Sustainable Development Strategy. I’m sure we could have come up with a couple of other E’s, but instead we added Inspire and Celebrate.

So what have we seen so far?

Well, all of the groups have identified **environmental** issues that they would like to tackle. We’re about to hear, from five community groups, some examples of activities

that they've done, or plan to undertake. These are concrete examples of projects that are relevant in environmental terms, and achievable with each group's resources. Is there something for everyone?

We have already seen completed projects that were modest in their scope and entirely 'owned' by a small group of people – that is, owned from concept to fruition. Projects like this might not involve partner organisations, they might not require expensive resources, they might be simple to implement. However, the benefits are tangible, and project fulfilment brings satisfaction, a motivational boost, and more interest and support from the wider community.

At the other end of the scale, there are projects that are ambitious, requiring collaboration with external agencies or partners. They might need to be funded from outside sources, and executed by specialists who are not part of the community. Members of the community might be involved so far as identifying need, developing concepts, lobbying, planning and liaising with third parties to get things done. Being a 'mover and a shaker' definitely helps! Projects like this also yield highly desirable results for the environment and the community, but they're very different to the first example: demanding other skills to make them possible. While the speakers are talking about their activities, do consider whether the projects they describe are like either of my two examples, or fall somewhere in between.

We are seeing that within the communities there are individuals whose original aspirations are being met either by their own individual actions, or through a little persuasion and the collective actions of groups of residents. On the other hand, there are groups of people whose shared aspirations are being fulfilled either through joint activities, or through individual activities at a household level.

They are identifying their own environmental issues, tackling them, and sharing experience and best practice, through our newsletter and other means of publicity.

And through all of the activities, the messages are more powerful, the groups stronger, and the level of activity greater if we remember those four E's. And the *Inspire* and *Celebrate*. Throughout the Project so far, we've been very mindful of the energy and enthusiasm and great work of Cumbrian communities that are not in the 'pilot' group of five. They deserve every-bit as much recognition, and if they're agreeable, we'd like to celebrate what they're doing too. We touch on this in the current newsletter ... maybe in the next edition there'll be lots more from other communities ... if you would like us to report on any of your sustainable development activities, do get in touch.

We hope everyone goes away with something new that they want to implement, or act upon, or encourage others to do. Let's hear about some specific sustainable community activities ...

## **ARTHUR STREET SUSTAINABLE COMMUNITY**

**Jim Blease & Nicola Vecqueray**

### **The Street**

- Arthur Street, Penrith, Eden Valley
- 64 households on a steep hill
- Mainly Victorian terraces with the odd mansion
- Conservation Area, about 20 Listed Buildings
- Age range 0-85+
- Wide range of professions

### **The Story So Far**

- Cumbria Green Build & Eden Local Agenda 21
- Gamblesby Village Hall Launch Nov 2004
- Project proposal
- Temporary steering group
- Marketing

### **The Gatherings**

- First street meeting – the launch 21<sup>st</sup> April 2005
- Follow up steering group meeting
- Second street meeting – the issues 24<sup>th</sup> May 2005
- Inaugural steering group meeting
- Newsletter
- Survey developed and distributed – August 2005
- Third street meeting – Cumbria Energy Efficiency Advice Centre (CEEAC) 8<sup>th</sup> Sept. 2005

### **Survey**

- 62 delivered, 58% returned
- Sympathy for sustainability issues
- High %s of recycling generally - kerbside collection
- Only 10% 10” insulation, 25% with 4”
- 22% no draughtproofing
- 31 birdtables
- 1/3 of residents not used bus or train in 3 months
- 70% not aware of water consumption
- Issues to be addressed - parking, recycling collections, speed limit dropped, bells on cats

### **24<sup>th</sup> September 2005 A Stuff-Swap**

We all put stuff we didn't want outside our houses e.g. gadgets, paint, furniture, clothes, childrens' toys, bikes etc.

We then perused the road, and negotiated deals!

Teas, cakes etc sold/ haggled-over and enjoyed at various establishments.

Anyone and everyone could join in.

### **Successes**

- Starting up
- Managing to deliver already – survey, CEEAC
- Enthusiastic core group with range of skills and backgrounds and from different parts of the street
- Good turnout at events – 41% of households – generating interest
- Lots of ideas
- Extended community interest / involvement

### **Challenges**

- Time
- Mass action
- Communication
- Knowledge
- Resources
- Planning permission
- Extended community
- What are we aiming for? What is success?
- Less talking, more action

### **The Future**

- ‘What’s it all about?’ talk
- Prioritisation
- Programme of meetings / discussion groups
- Community events – barbeque
- Regular junk swaps
- Notice board
- Intensive monitoring?
- Chip fat sharing!
- Carbon footprints

## ECO-KLPLUS: KIRKBY LONSDALE SUSTAINABLE COMMUNITY

### Dr Noel Charlton

For us it all started, in this room, in June of 2004, at a Carlisle Diocese conference on the churches and environment. In conversation with John Biggs about the developing plans for Sustainable Communities and the pilot projects; John said he was interested in our area because of the existing co-operation between the Kirkby Lonsdale area churches. In the 'Rainbow Parishes' there are eight Anglican churches served by one clergy team, good relations with Methodist and Catholic churches, plus the ecumenical Christians Together in Lunesdale, shared prayer groups and other activities.

Later that year I talked about the possibility at the Rainbow Parish Away Day. This exercise recruited our first three members – Sarah Lunn, our young and very 'hands-on' curate, Clive Rigby, a lay preacher (both from the Rainbow Team) and Anne Foulerton, who works in primary education.

I followed this up with a letter to all clergy in the area. There was, disappointingly, little response from the churches but successive articles in our local newsletter *Around Kirkby Lonsdale* brought in more people: Fenner Pearson, a local computer wizard and businessman, his wife Hannelie, Clare Millington, who runs 'Hidden Country' - offering environmental courses in the area, Alan Day, chairman of Kirkby Lonsdale Town Council, Marjorie Mellor, a retired biology teacher, Amanda Hutchinson, who has skills in wildlife gardening, Sarah Johnston, who teaches religion, philosophy and ethics at Queen Elizabeth School and has initiated their 'Green Schools' project, Jennifer Green, a retired teacher, Sarah Crombie, a local businesswoman, Ginny Moore, a Kirkby Lonsdale resident with three children at the schools and Chris Thornton, a local Health Visitor.

Chris, a member of the Preston Patrick congregation, came with me in November to the Sustainable Communities meeting in Gamblesby, which brought the potential projects together for the first time and allowed us to meet Alex McKenzie, Tim Gale and other committee members. In that month I got a general introduction to the scheme into *Around Kirkby Lonsdale* and spoke about it to the Parish Council of the eight Anglican churches. In January of this year we had a meeting at which we developed the shape of what we hoped to do, named the project Eco-KLplus and began to put together a bid for Pilot Project status. Fenner produced our embryonic website. Our proposal was submitted and I had the good news of acceptance just in time to add it to a presentation to the Town Council's Public Forum. None of the councillors betrayed much excitement! Shortly after this we formally met to constitute our group as a voluntary body, appointing our Chair, Secretary and Treasurer.

Our first profile raising public activity was a Launch Event in June, held in the foyer of Booths Store in Kirkby Lonsdale. This ran for most of a Saturday, various combinations of our members giving out two free low energy bulbs, a water-saving 'hippo' and an information pack to some 300 local families. We were encouraged by the number of people who showed real interest in the issues and solutions. Many already realised that

burning electricity, gas or oil fuels adds inexorably to the layer of carbon dioxide gas in the atmosphere. They understood that it is preventing heat from Earth passing out into space, making the whole planet hotter. They knew about the melting of the polar ice fields and rising sea levels, the floods and wild weather in many countries, drought and famine in others.

Queen Elizabeth School's Green Project was coincidental – but we are keeping in close contact through Sarah Johnston's membership of our project and we hope to develop more specific collaboration soon.

So far there has not been much awareness or interest from the churches and religious organisations in general. Sarah (our Curate) is enthusiastic and energetic in our interests, Andrew Webb is supportive but (being responsible for several Methodist congregations) does not have time to be personally involved. Contact with the Catholic Church has been affected by the retirement of their priest and the very recent appointment of his successor.

There seems to be little general understanding of 'the environment' as sacred *because* it is God's creation, or that justice and mercy should extend beyond the boundary of the 'human world'. Few people seem aware that the 'human world' is no more than a socially constructed *illusion* and that our interdependence with *all* of 'nature' is so *complete* that limiting our moral attention to human concerns is an absurdity.

One area where progress *is* being made is our idea of planting fruit trees on an area of church land near to the town centre. The trees would take in and hold some carbon as they grow, provide some natural beauty and the fruit would be an organically grown resource for the community. This proposal is making its way through the appropriate committees (with Sarah Lunn's help) and we are hopeful that it will 'bear fruit'.

We will soon have further distributions of low energy bulbs and hippos around the eight parishes, the Cumbria Energy Efficiency Advisory Centre is to offer low cost and free energy-saving equipment (and a competition with energy saving equipment as prizes) to all households in our area. Sub groups of Eco-KLplus are working on developing safer access routes (and encouraging walking) to our schools, developing the website into a useful tool, and influencing people towards more sustainable gardening and composting practices. We also hope to institute a system for car-sharing and lift giving, and to develop a Local Exchange Trading Scheme.

What we see as our most serious challenge is the task of expanding the excellent awareness and concern of the existing core group - to the wider public, in the town and in the wider Lune valley. We are seeking (and hoping to learn from others today) ways in which we can get much larger numbers of local folk interested, concerned and responsibly active in their own lives.

Ideas at present being discussed include holding 'green parties' – social events – perhaps monthly – where people can come, bring food and drink to share, chat and have a good social community time – with a *short* interlude where environmental plans and concerns

can be explained and discussed. We would like to engage in discussion and learning *with* the clergy and church-people – in the hope of extending Christian concern and empathy beyond the human world. Other thoughts include inviting well-known speakers, public discussion groups or evening classes.

We really need to find *new* ways of involving the people who are at present vaguely aware of problems and threats but are so immersed in their busy lives that they do not change the damaging ways in which they live. I hope this afternoon's sharing will help us all in finding ways to do this.

## **GRASMERE SUSTAINABLE COMMUNITY**

### **Bev Dennison**

Grasmere's Sustainable Community Group is trying to demonstrate that community partnerships can provide positive leadership and commitment to change attitudes and lifestyles and bring about real benefits for the environment and our community as a whole.

#### **Achievements of Environmental Benefit**

1. Creating and writing the Grasmere Green Pages that go into the existing monthly Parish magazine.
2. Putting together the contact numbers in our yellow pages section of the Parish Magazine.
3. Raising funds for and putting together the knotweed eradication project.
4. Raising the awareness of other local environmental problems.
5. Working on our Red Squirrel project, together with the Grasmere Village Society.
6. Lobbying for and help with the planning and funding for our new bus shelter.
7. Working out community involving projects with Grasmere Primary School to help them achieve Eco School status.

#### **The Grasmere Green Pages**

We were fortunate enough to be engaged on Parish Plan, and thoughts formulated from that led to Green Pages, which fitted perfectly with the Grasmere Sustainable Community Group's action plan. We realised that every one of us in the community would benefit from having a place to pass on eco friendly tips etc. This would help us as a community to be more sustainable. Using the Parish Magazine seemed a brilliant platform to try it and we are very grateful to Rev Cameron Butland and the editor for letting us try out our ideas. The idea is to offer free community advertising on a page to help find a market place for all those unwanted things we would not otherwise ever find a new home for. It's a place to advertise village events; to tell people about new services and useful phone numbers. It's a place to offer not just things for sale, but to offer things for free or for a small donation to your favourite charity. Things like garden plants or those leftover building materials, a surplus apple crop, outgrown toys, the use of a redundant greenhouse or a lawn mower that's no longer needed. But we hope that the pages will be much more than that. We hope to remind people that the school can often use things like wrapping paper and containers for craft projects. To remind people to save their jam jars for Mrs X and not to forget that Mr Y is still hoping to find someone who can offer a lift to Ambleside every weekday. We hope to help those who are looking for a baby sitter or someone who could move a grandfather clock, re-calibrate a barometer, or resolve a computer problem. The Grasmere Sustainable Community Group hopes to contribute a regular article about what we are doing and why we are doing it; to bring any good environmental tips and information about any eco friendly product promotions we can get for the village.

### **Raising the Profile of Environmental Issues and Action in the Community**

- Using Green Pages to communicate to the widest possible audience.
- Using our knotweed project as a positive example, to show everybody the difference we can make by working together and taking community led action.
- Taking stands at Ambleside Flower Show and Grasmere Sports to promote Grasmere Sustainable Community Group's work.
- Giving monthly presentations about our projects at the Grasmere Village Society meetings.
- Bringing to a wider public awareness the issues brought forward in the Parish Plan, including: dog fouling, litter, light pollution, sustainable transport, visitor pressure, foul water and surface water problems.
- Reporting in the Parish Magazine on the effects of our lobbying for better and a wider range of recycling facilities in the village.

### **Connections Made between Individuals and Groups in the Community**

- Using Grasmere Village Society socials to reach individuals.
- Grasmere Village Hall Trustees.
- Working with the teachers and pupils at Grasmere Primary School.
- Using the local pharmacists as a distribution point for low energy light bulbs and water savers.
- Grasmere traders, clubs, local charities.
- The Church, farmers, hoteliers, the primary school and countless individuals.

### **Knotweed Project**

- Recognising that the knotweed invasion was a big problem and if left it would be too difficult to eradicate from the valley.
- Working out how best to tackle it.
- Raising an awareness of it via Green Pages, village socials, Grasmere Village Society etc.
- Updating the knotweed survey done by the LDNPA in 2002.
- Negotiating permission from all the agencies concerned.
- Obtaining quotes from contractors.
- Fund raising for a three year eradication programme.
- Facing a mammoth task of getting 40+ landowners to agree to land access and permission to spray the knotweed.
- Volunteers accompanied contractors to speed up the finding of knotweed sites to spray, thus saving a fortune.
- Promoting the project from a Sustainable Community objective.

Japanese knotweed is Britain's most noxious, aggressive and fastest growing weed. It is a serious threat to the native ecology of one of the most beautiful valleys in the Lake District. It is not a native species but an imported one that grows up to eight feet high and forms dense bamboo like clumps that shade out all native plant life. The plant has no natural predators in Britain and eradication has to be done on a wide scale as its roots can go down three metres. It can also travel sideways seven metres before re-emerging above ground, and can lie dormant underground for up to two years.

In 2002 the Lake District National Park Authority did a valley-wide survey of the problem, revealing nearly 200 knotweed sites around the valley. The Grasmere Sustainable Community Group could see that the problem was getting worse and would be too difficult and too expensive to tackle if left any longer. The plant has propagated itself right from the top of the valley down to and around the lake shores, largely by pieces re-rooting themselves after falling into the many streams and the river. The eradication plan therefore had to be based on a catchment wide as well as a community wide scheme.

Once the survey was updated and plans formed, the Environment Agency, who issue licences for spraying near water, were contacted for their approval of the plan. The biggest task for the group was to identify and gain permission from every landowner to treat the weed. This was achieved through person to person negotiation, letters and much hard work by the group. Funding has been hard to come by, but eventually the group gathered enough funds for the work from various sources including the Sustainable Communities Fund, the Lake District Tourism and Conservation Partnership, the National Trust, and The Friends of Grasmere (a village charity). The Sustainable Communities Project has fortunately provided the vehicle through which to focus efforts on the knotweed and mobilise community action. Spraying was done successfully by professional contractors in September. Given the aggressive nature of the species, it is planned that further spraying will have to be carried out for the next couple of years. It is an expensive business but so far the operation has been carried out well under budget thanks to local knowledge of the area and volunteer time. It's only through collective community action and working together with various agencies that knotweed is being tackled effectively in the valley. By promoting the issue through the Sustainable Communities Project rather than from an agency objective it was much easier to get everyone on board. Grasmere community is fighting back against this aggressive invader and winning; something the largest agencies probably would have found difficult to co-ordinate and struggled to do.

### **Developing Plans for the Future**

- Engaging the community in the CEEAC energy offers and the energy efficiency surveys.
- Distributing donated energy saving light bulbs and water savers in the village.
- Working with the Grasmere Village Hall Trustees to improve the village hall's energy efficiency and possibly install a ground heat source pump for heating.
- Encouraging better community participation in the Cumbria in Bloom competition especially in relation to the eco elements of the competition.
- Buying equipment for community litter picks.
- Community litter picks around the valley and on the island.
- Working with the Grasmere Primary School to help them with eco projects. We hope to help them with the heavy physical side of projects, such as creating a pond, a willow bird hide, wildflower meadow, composting and wildlife areas to help them become an 'Eco School'.
- Phase 2 & 3 of the Knotweed eradication project.
- Organise community work parties to hand pull Japanese Balsam.

## BRAMPTON SUSTAINABLE COMMUNITY

### Rev John Smith

Brampton began with a well-attended public meeting following the adoption of the idea by the Brampton and District Ecumenical Justice and Peace Group, which I chair. Mrs Judith Pattinson, Chair of the Parish Council and Ex Mayor of Carlisle, chaired the meeting from which a small committee of seven was drawn. This committee represented the local secondary school, the Methodist Church, the Roman Catholic Church, a local organic farmer and other interested local enthusiasts.

After several useful meetings problems occurred. These were nothing to do with the content, but unfortunately to do with the personal health of the committee, all very serious. Eventually we were reduced to a residue of two committee members.

I called a second public meeting as by this time the extent of the project had grown and the prospects for increased funding had become an opportunity which the town should be more aware of.

This second meeting in the Methodist Church, again chaired by Councillor Pattinson, attracted a small group including the interest of the Brampton Community Centre and one other organic farmer. It was suggested that unless we were able to take up the generous offers on the table Brampton should pass its opportunities to another community.

A second committee was established and we relocated to the Community Centre and Bob Allan, chair of the Community Centre became the secretary and I became the chair.

We established a list of possible projects following the Cumbria Energy Efficiency Advice Centre home energy efficiency survey, which attracted a 12% response (over 300 households). This is now going forward with a subsidy of £92,000 including two grants of solar panels and heat pumps.

Other projects now being undertaken as priority are two extra leaflets: an A5 flier *Think Global-Act Local in Brampton* and a booklet *Living in Harmony with the Environment*. We are also keen on establishing a day workshop on Sustainability/Climate Change/Lifestyle issues at Low Luckens Organic Resource Centre, attached to one of our organic farms. Other projects under consideration are an energy audit of the Community Centre (report October 2005), healthy food initiatives, tree survey and planting, local information leaflet, community arts initiative, the development of the Brampton Farmers' Market, and finally a launch either at the market or on a resource day for the Community Centre.

## ESTHWAITE GREEN LINK

### Rachael Milling

It all began with the Churches Together in Hawkshead harvest festival last year, where John Biggs spoke about the Sustainable Communities Project. As newcomers to the village we felt unsure about the way forward, and were unable to get anything going in time to be considered as one of the initial pilot communities. However, we were encouraged by Churches Together in Hawkshead to organise a public meeting, and to everyone's surprise nearly 30 people attended. John Biggs kindly came along and helped us. Since then we have had monthly meetings, now changed to two monthly.

There is no shortage of ideas – everyone has a pet project – the challenge is to find people with the time to carry them out. Our first effort was the Hawkshead Agricultural show, where we had a stall. One or two of us made about 50 cloth bags from odd bits of fabric as alternatives to plastic, and we gave them away, along with water hippos and various leaflets. Our aim is to encourage people to do any little thing to help save the world! Naturally it rained, but quite a few people came and looked, and took things away. We are going to source fairly traded organic cotton bags to sell in local shops as one of our next efforts.

We are very fortunate that one of our members, Steve Wyburn, is an experienced graphic artist, who designed our logo and oversees our layouts. He is also involved in developing the website without which no organisation can hold up its head. We hope to be able to have a space in the Parish Magazine, full of handy eco-tips.

We started out with a non-hierarchical organisation but fairly soon realised that we needed a structure to enable us to set up bank accounts and access grant funding, so we now have a committee which is looking at the way we work. We want to involve as many people as possible in greening the valley - sustainability is not just about resources, it is also about empowering people to take charge of their lives and their environment.

Future ideas include:

The website

Involving school children in environmental issues

Next year's Hawkshead Show

An exhibition in the Market Hall for visitors

The bag project

A possible biodiesel co-operative

Investigations into hydroelectric schemes

Leaflets on household chemical hazards and green alternatives

Leaflets for holiday lets on using septic tanks

And much much more ....

## ENERGY CONSERVATION WORKSHOP

**Suzanne Burgess and Lucy Smith**  
**Cumbria Energy Efficiency Advice Centre (CEEAC)**

Suzanne began with a talk on the background to the CEEAC from its beginnings in 1996 through the creation of ICE (Improving Cumbria's Energy) in June 2004 to its present day partnership working with the Cumbrian District Councils, Primary Care Trusts, Scottish Power, Everwarm Services Ltd, housing associations, and now the Sustainable Communities Project. Services include: insulation costing, so that people can be clear on the benefits of insulation; free insulation in some circumstances; a renewable energy adviser; and most recently the 'One Tonne Challenge' – challenging any individual or group to save a tonne of carbon emissions. This is easily done as it is estimated that for each type of energy saving measure installed, one tonne of carbon is saved. The idea is for the word to be spread from friend to friend and community to community, such that someone takes action to save their tonne then encourages others to do the same.

The delegates were then given the option of discussing one of a range of issues and chose:

### **Group 1: Air Source Heat Pumps**

Useable for central heating only at the moment, these pumps extract heat from the air – even under very cold conditions – in a very efficient way. They are cheaper to run than any central heating system other than mains gas and are particularly useful in rural areas served by either solid fuel or oil. Although not fully carbon-neutral, they are much better than any system other than wood-burners - a report from Strathclyde University found that 1 unit of electricity used produced between 3 and 3½ times as many units of heat. A system heats the CEEAC offices! Having bid and won funding of £90,000 CEEAC are in the process of installing 30 units in selected houses around the county and training 10 engineers around the county in best practice in installing the systems.

### **Group 2: Low Cost / No Cost Measures**

A lively discussion of practical steps which all householders could take, such as switching off electrical apparatus instead of leaving it on stand-by, switching off unwanted lights, not leaving the fridge door open longer than necessary as it takes 7 minutes of continuous running for the fridge to cool down again for every minute the door has been open.

### **Group 2: Insulation**

A question was posed as to whether cavity wall insulation can be a cause of dampness penetrating house walls. Assurance was given that damp is a problem only in cases where there is rubble in the cavity and that today no responsible contractor would fill a cavity unless it is clear. Cavity wall insulation of an average house could save 1 tonne of carbon products being released into the atmosphere each year.

## **Pledges**

Participants were asked to sign pledges stating the action that they would take as a result of the workshop. The following pledges were made:

- Investigate further improvements to insulation and reducing our energy consumption.
- Support local sustainable community as possible.
- Cut down on using electric oven to cook one item only.
- Look at cavity wall insulation.
- Fit energy efficient light bulbs we were given today.
- Replace light bulbs at home with energy saving ones as I have some but not in all rooms.
- Switch off stand-bys, and enquire about solar panels.
- As editor of a church newsletter (which has already had an occasional Think Globally – Act Locally feature) I intend to publicise Cumbria EEAC and some of the ideas from this and other of today's sessions. In fact this was my reason for coming today: to go away with messages which I could pass onto others.
- Tell my family and friends about cavity wall insulation.
- Talk to my husband about installing solar panels.
- I will take our electricity from a green supplier.
- Find out more about air source heat pumps and earth heat systems.
- Look into fitting an air source heat pump.
- Do something about our loft insulation.
- Contact rural churches in Solway (maybe beyond) regarding air source heat pumps – some churches are using oil, so I presume there is no gas there, and there are 30 parishes in West Cumbria.
- Get my car mileage down below 5,000 miles per year.
- Find out about better loft insulation.
- In future I am going to limit my flights and think seriously about where I take my holidays.
- Raise the issue of energy conservation and CEEAC advisory services with my local parish councillor.

### **CEEAC contact details:**

Unit F, Baron Way, Kingmoor Business Park, Carlisle, CA6 4SJ  
01228 672459 [cumbriaeeac@btconnect.com](mailto:cumbriaeeac@btconnect.com)

Contact them for more information on home visits, presentations and training sessions, and for specific information on:

### **Energy Efficiency Measures:**

Cavity wall insulation, loft insulation, boilers, heating controls, top ten tips, white goods, low energy light bulbs, double glazing, draught proofing.

### **Renewable Energy:**

Solar thermal, solar voltaics, air source heat pumps, ground source heat pumps.

### **Home Energy Checks:**

CEEAC will produce a report on the energy efficiency of properties.

## WATER CONSERVATION WORKSHOP

Margaret Siberry, Wells for India

**Wells for India** ( [www.wellsforindia.org](http://www.wellsforindia.org) )

Project by-line is Water – Dignity – Wellbeing. The project works in the most deprived areas of Northern Rajasthan in northwest India. The area is a mixture of desert and semi-desert and has very erratic rainfall with only 100-500mm in a few summer months. Temperatures can rise to 45 degrees and droughts are frequent. Water resources are scarce and life, particularly for the women, revolves around the need to find, fetch and store water. Without access to a good supply of clean water the health of the poorest people suffers. One in nine children die before they are five years old and 50% suffer from malnutrition. The death rate of women in childbirth in rural Rajasthan is one of the highest in the world.

Wells for India works with local organisations in Rajasthan to bring water security to villages. It concentrates on water harvesting. When the rains come during the brief summer monsoon period there is little vegetation to slow down the rush of water. This results in soil erosion and poor refilling of groundwater wells. Water harvesting is slowing down and capturing the flow of water by the use of dams, covered underground tanks (taankas) and wells, which allows the water to penetrate the ground, irrigating the upstream lands and recharging the wells and thus providing increased fertile areas for crops and water for animals. Wells and village ponds are also deepened and desilted.

Part of the problem in the area, as in so many other parts of the world, is deforestation, which has denuded the Thar Desert of windbreaks and stabilised soil. The Trees for Life project arranges for suitable indigenous trees to be planted in the area, which have the added benefit of providing edible fruits and herbal medicines and pesticides, on behalf of donors who commission them to mark a special occasion or event in a life-giving way.

### Water Quiz

*‘When the waters run clear, and their life is restored, we might see ourselves reflected whole.’*

1. The changing of water from a liquid to a gas is called ... **Evaporation**
2. The changing of water from a gas to a liquid is called ... **Condensation**
3. The changing of water from a solid to a gas is called ... **Suspension**
4. The process by which water molecules condense to form drops heavy enough to fall to earth is called ... **Precipitation**
5. The process by which moisture is carried through plants from roots to leaves, where it changes to vapour and is released into the atmosphere is called ... **Transpiration**
6. The flowing of water over land from higher to lower ground is called ... **Surface runoff**
7. The process of water filling the porous spaces of soil is called ... **Infiltration**
8. The process of groundwater moving in the saturated zone below the earth’s surface is called ... **Percolation**

9. How much of the fresh water on earth is available for our consumption?  
 a) 60%      b) 25%      c) 10%      **d) <1%**
10. How many people in our world lack access to clean water?  
 a) 500 million      **b) 1.2 billion**      c) 2.4 billion
11. In Asia and Africa, what is the average distance that women or girls walk each day to collect water?  
 a) 60m      b) 600m      **c) 6km**
12. What is the average weight that these women carry on their heads?  
 a) 5kg      **b) 10kg**      c) 20kg
13. Which human activity uses most water?  
 a) personal hygiene      b) cooking      c) manufacturing      **d) irrigation**
14. How many litres of water does it take to produce a fast food lunch of burger, chips and a soft drink?  
 a) 600 litres      **b) 1600 litres**      c) 6000 litres
15. How much water does it take to flush a toilet that does not have a water saving device?  
 a) 1-3 litres      **b) 8-10 litres**      c) 15-20 litres
16. How much water does an average dishwasher use?  
 a) 15 litres      **b) 20 litres**      c) 30 litres
17. How much water does the average person in the UK use each day?  
 a) 50 litres      **b) 135 litres**      c) 200 litres
18. How much water does the average person in the developing world use each day?  
**a) 10 litres**      b) 50 litres      c) 75 litres

**Facts to Ponder** (*sources: Thames Water Waterwise, Water Aid, BBC, Water UK*)

Each person in the UK uses an average of 135 litres of water per day – more than 10 times the average daily use of a person in the developing world, who uses just 10 litres per day.

Litres

- 2.5 Recommended daily amount of drinking water for an adult.
- 5 To fill up a watering can
- 6 Brushing teeth with the tap running
- 10 Flushing the toilet
- 10 Washing the car with a bucket
- 20 One load in a dishwasher
- 35 A five-minute shower
- 60 A power shower
- 65 One load in a washing machine
- 80 Filling the bath
- 540 Using a hosepipe or sprinkler for an hour

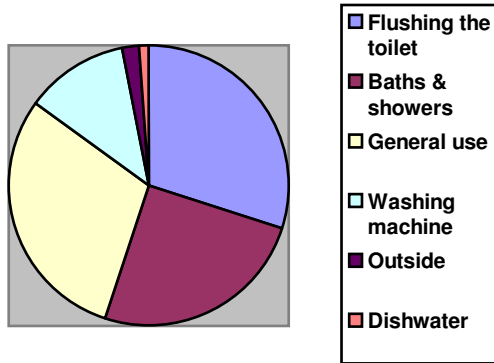
The North West region's demand for water: the equivalent of 93,000 glasses of water a second.

A tap dripping at one drop per second wastes 1544 litres a year; enough to fill 20 baths. If every person in the North West turned off the tap for one minute whilst they brushed their teeth, it would save enough to fill a major reservoir.

Collected rainwater is better for plants because it allows them to absorb important minerals more easily.

Saving water can save energy too.

### Average Household Water Use



### Discussion Questions

#### 1. Water ownership and governance

Is access to clean water a human right?

Who owns water? Who controls water supplies?

Are water wars really a future possibility?

Who are the major shareholders of United Utilities? How can we hold them to account?

#### 2. Pollution

Across the planet the oceans and seas are being polluted at an unprecedented rate – do we regard them as a giant sewer?

Closer to home – what is happening off our own coasts, to our own rivers? (Useful resource [www.waterwatch.org.uk](http://www.waterwatch.org.uk) )

Could a church group research the facts, global and local, raise awareness and prepare a liturgy of lament and call to action?

#### 3. Health issues

Water-borne diseases are responsible for 80% of the illness and deaths in poor countries.

2 million people, mainly in Africa, die needlessly each year from diseases like diarrhoea, malaria and other water-borne diseases.

6000 children die each day from water-borne diseases like gastro-enteritis. (Twice the number killed in the 11<sup>th</sup> Sept attacks; where is the crusade for clean water?)

How can we make sure that the millennium development goals of halving the number of people without access to clean water and halving the number of people without sanitation (currently 2.2 billion) by 2015 are high on the international political agenda?

The 2003 Water Inspectorate for Britain reported that 99.87% of the water analysed met the stringent UK and EU purity standards, yet the sales of bottled mineral water grew by 10% in 2002.

Bottled water is 1000 times more expensive than tap water and bottles may have been on a warehouse shelf for up to two years.

Why has bottled water become such a lifestyle issue? Can we make the facts known?

#### **4. Stewardship or relationship?**

We are planetary pilgrims, interdependent participants within the earth community.

How can we express this relationship in our everyday use of water?

Can we find our nearest stream or river, pond or lake, get to know it and care for it?

#### **Additional Topics Raised in Discussion**

Use of dishwashers? - modern ones use less water, and there are ways of using them more (or less) responsibly.

Pollution - what goes down the sink, chemical rather than effluent.

Privatisation of water was considered an outrage - water supply must be in the control of the national authorities. Most people, as they make their choices, are driven by cost, and this goes for the providers as well as the consumers.

Political choices - A Cumbrian farmer cited the example of Brazil, where the government are making water available to growers of maize feed to enable them to feed their cattle, fattening them up for the international market. They are then being sold into the British market more cheaply than home producers can compete with, with the result that Cumbrian farmers cannot sell their animals. It is not a shortage of water that is the issue here, but the political use of water through state intervention boosting production of one particular commodity.

Over-use of water - Leads to depletion of underground reserves in some areas.

## **RECYCLING AND WASTE MINIMISATION WORKSHOP**

**Alex McKenzie, Sustainability Manager, Cumbria County Council**  
**Kim Williamson, Waste Minimisation Officer, Cumbria County Council**

### **Key Issues**

Social effect, e.g. of waste disposal plants, degradation of human habitat, resource depletion for future generations.

Economic effect – initial cost wasted when an item is thrown away; cost of disposal. Landfill allowance trading scheme now fines counties (and therefore householders) at £150 per tonne if allocated landfill tonnage is exceeded.

Effect on environment:

Problem of disposal.

Habitat destruction.

Methane production from landfill.

Pollution from landfill leachate and stack emissions.

Effect on plants.

Climate change - CO<sub>2</sub> emissions from production of materials and disposal of waste

Waste produced in Cumbria has increased 10% since 2002/3 and is now 300,000 tonnes a year.

68% of household waste is biodegradable.

### **What are Local Authorities Doing?**

Procuring waste treatment contract to divert waste from landfill.

Improving household waste recycling centres, including re-use facilities.

Expanding kerbside recycling collections.

Waste prevention initiatives:

- Recycling Rewards For Schools (RRFS)

- WRAP project to encourage home composting through free delivery of subsidised bins and after care provision of a home composting advisor and free helpline.

- Real nappy promotions.

- County wide waste awareness campaign.

Tackling fly-tipping.

Communities or charitable organisations responsible for recycling can be given 'recycling credits' to use for their community/charity. Recycling credits are to be standardised across the county soon but can only be given for household waste.

A leaflet will be coming out shortly from Cumbria County Council with advice on environmental activism within our communities

### **Challenges and Obstacles to Recycling**

- Household reluctance to separate waste.

- Insufficient recycling facilities.

- Two weekly collection causes storage problem.

- Large boxes distributed for recycling collections are difficult to store and lift.

- Insufficient information is provided on what is recycled, where it goes and what it is made into.

### **Action We Can Take**

1. Promote to wider community and other communities through leaflets and workshops.
2. Link with local authority initiatives on recycling, home composting, community composting and recycling work in schools.
3. Petition supermarkets to reduce packaging. Possible direct action, i.e. removing the packaging and leaving it in the supermarket.
4. Use re-useable bags such as rucksacks rather than taking plastic bags; currently over 900,000 plastic shopping bags are distributed each week in Cumbria. Ask supermarkets to sell cloth bags.
5. Only buy the food that you need to eat. 32% of all food bought is thrown away uneaten. Compost left-overs.
6. Buy products with little or no packaging: organic box schemes or from markets.
7. Even better, grow your own food – and use the compost you have produced to do so.
8. Use gift boxes instead of wrapping paper.
9. Give non-material presents, e.g. vouchers for events, charity gift schemes (Christian Aid, Oxfam, World Vision, Save the Children Fund etc) whereby the recipient gets a card and the money pays for a much needed item in a poor country.
10. Purchase re-useable rather than disposable goods, e.g. nappies, razors.
11. Buy products from recycled materials.
12. Have a stuff swop on your street where everyone brings and exchanges their unwanted goods.
13. Don't replace products that work.
14. Use Mail Preference Service to stop 'Junk' mail. [www.tpsonline.org.uk](http://www.tpsonline.org.uk).
15. Campaign – lobby MPs, local authorities and retailers – so that issues like packaging are tackled at a policy level.

### **Action Plan**

An action plan is recommended to local groups and communities to help ensure we do take action, e.g:

- A. Short-term (3 months) – Change personal habits; one a week.
- B. Medium-term (3-6 months) – Produce and distribute leaflets to the wider community; petition the local supermarket about packaging; link with local authority initiatives.
- C. Long-term (6 months – 1 year) – Set up local home composting workshops; introduce a community composting scheme; provide real nappy support for parents; produce a community information newsletter on progress.

## CARING FOR THE COUNTRYSIDE WORKSHOP

### Bishop John Oliver

The outcome from both workshop groups was fairly similar. In the first group we had one farmer, in the second group we had nobody who was actually involved in farming. Everybody was clearly committed to the countryside, they loved it for its beauty, its recreational value, its biodiversity, and its importance as a spiritual resource. Its role as a 'lung' for the towns was recognised.

Both groups agreed that the future of farming is critical to the future of the countryside, since the landscape as we know it has been formed by farming over many many centuries, and the difficulties facing the farming industry at the moment may pose very significant threats to the future of the countryside. It was agreed that food production is a very important function of the countryside.

One of the saddest indicators of decline is the unprecedented number of farmers' children who are failing to follow in their parents' muddy footsteps. In contrast very significant movements of population from the towns are bringing retired folk and long distance commuters to a countryside which is alien to them. In doing so house prices are forced up to levels that local people cannot afford. The farmers' children are probably having to find their feet in suburbia. The long-term worry is that once the inherited skills are lost they would be well nigh impossible to resurrect.

Many spoke of the tension between people who have lived in the country all of their lives and the incomers who arrive from towns wanting tranquillity, beauty and a better lifestyle, but in some cases not understanding at all what makes the country tick, not liking farming activity, and of course resenting the fact that in recent years intensive farming has damaged the environment very considerably.

There were varying levels of understanding of the implications of the reform of the Common Agricultural Policy, which is paying farmers increasingly to maintain the landscape in an environmentally sustainable way and promote biodiversity, and has decoupled payments for production from payments for land management. There have been problems in changing to the new system of single farm payments, not least late payment. However, most people found it a hopeful development. Less intensive farming should prove to be of benefit to wildlife.

It was recognised too though that the extremely low commodity prices prevailing at the moment mean that the future of traditional farming, in particular that kind of mixed farming that has created the landscape most popular among most people in this country, is still under severe threat. The recent disposal of Beatrix Potter's farm by the National Trust indicates the particular financial fragility of upland land. A bank manager was quoted as saying: 'If you're still here in three years you're sustainable'. Farming is a highly regulated industry without control of farm gate prices; price control is in the power of the supermarkets. It was suggested that low earners have little choice but to shop at supermarkets. Local farming needs fair trade too. Farmers will be better off if they do not

bother to plant winter wheat this year. The dairy industry is on its knees largely as a result of deregulation and the loss of the Milk Marketing Board. The beef producers are also struggling here in the face of competition from producers who are unhampered by rules and regulations. The importance of auction marts was highlighted, as were farmers' markets.

There was some discussion of the sociological tensions resulting from shifting population in the country, and of the need to retain young families in rural areas, to support schools, to provide customers for local shops and pubs, and to prevent the countryside from becoming fossilized and geriatric.

There were some divergences of view over the desirability of development, and many people spoke of the particular problems created by the extremely stringent planning restrictions in the Lake District National Park. There was understanding of the undesirability of increasing the number of buildings and any kind of urban sprawl in beautiful surroundings, but one person made the point that farming does not necessarily enhance the landscape, and that there are still aspects of modern farming which are aesthetically rather unattractive. People with legitimate ideas about local, sustainable employment have found it impossible to get planning permission for housing or small business premises.

There was a conclusion - not entirely dissimilar from the one in the main part of the day about political influence over the worldwide environment - that politics is critical in the future of the countryside in Britain. It was felt that the present government does not really understand or like the country, and is not putting forward policies which are likely to enable it to continue to flourish. If climate change begins to dry mainland Europe, our wet climate would be much in demand to maximize food production, but the Government seems oblivious. Cheap food is as attractive to governments as to supermarket shoppers.

There is a need to recognise the changes since 1945 when farmers were heroes. Now they are less significant numerically and economically. The connectivity of understanding has decreased as townspeople now have few rural relatives. There is a need for food education, with the example given of children not knowing where milk comes from. It was commented that small scale 'hobby farmers' can make a lot of noise, but 'hefted' farmers tend to be very reticent, so views of farmers may be skewed. However, there are successful farms e.g. Yew Tree, Borrowdale, and larger farm shops e.g. Penrith, Tebay (M6). There is increasing involvement in food cooperatives. Groups like Cumbria Farming and Wildlife Advisory Group (FWAG) help farms and their own members.

Organics is part of environmental good housekeeping and is fine where crops can be rotated, but some questioned whether is viable in Cumbria. Post Foot and Mouth organic production has grown significantly in Cumbria yet 70% of that market is still satisfied from overseas. In some areas the market is saturated but fruit and vegetables command a premium. There are issues about the balance between economy and ecology. Water meadows are being ploughed to plant potatoes to boost farm incomes. Polytunnels are spoiling the appearance of the land but are essential to meet the demands for longer crop

seasons. It was pointed out that, 20 years on, nine farms in Cumbria are still subject to movement restrictions as a result of the nuclear fall out from Chernobyl.

Tourism is a very significant factor in Cumbria, and there were differing views about the impact of tourism; is it possible to have too many tourists? Some thought that it is; others thought that we need even more in order to sustain the local economy. Tourism appears to have recovered well after Foot and Mouth but depends, as agriculture, on low wages, so placing Cumbria on a knife-edge as the only sub-region of England which is not growing economically. Although tourist numbers are growing, anecdotal evidence suggests that, whilst people pack the car parks, fewer are to be found on the fell tops. The nature of tourism has changed with a predominance of short breaks booked on the internet. There has been debate recently about what kind of tourists are likely to come to the National Park, and there was criticism of the recent emphasis on the need to attract a more varied spectrum of visitors; with the argument being made by some participants that the traditional middle-aged, middle-class not only value the landscape most, but are least likely to damage it, or to encourage activities that are incompatible with tranquillity. There was some sharp criticism of one or two plans to introduce 'popular tourism', with mini theme parks, and activities, such as 4x4 off road use, which were not considered consistent with the traditional attractions of the Lake District.

Wind farms were discussed in one workshop. 'Angels on the Hills' was one description of those in the right place, which can bring benefit to farmers, but the majority view in this workshop was opposed on the basis of no sound economic case in favour, yet a strong case against from their intrusion in the landscape. It was felt by the majority in the workshop that the only beneficial wind turbines are small and local to supply individual farms and activity.

There was on the whole a deep affection for the country, and a profound commitment to keeping it beautiful, sustainable, and productive. It was recognised that everyone can do something to care for the countryside, e.g. reporting knotweed in gardens.

## **BIODIVERSITY & NATURE CONSERVATION WORKSHOP**

**David Muir, Biodiversity Officer, Cumbria Wildlife Trust**

The workshop aimed to introduce people to the general concepts of what is biodiversity, why is it important to conserve it, what are the local, regional, national and international structures for co-ordinating its conservation (including our own Cumbria Biodiversity Partnership in general and the *Wealth of Wildlife* project in particular), and what can organisations and individuals contribute to those efforts?

### **What is Biodiversity?**

Biodiversity is everything that grows and dies – the variety of life.

### **The Need for Conservation of Biodiversity**

- Wide variety is of economic benefit; dependence on a minimum could be dangerous
- Science & medicine
- We should value what we still do not know; there is much more to discover
- Food: may lead to better food in the future
- Sustainability of interconnection: interdependence of species; food chains
- Climate control
- Beauty
- Psychological value
- Inspiration for arts
- Spiritual well-being: biodiversity puts humankind in our place; we have been responsible for unjustifiable superiority over other species; biodiversity helps us to see our place in creation
- Health: people recover better from illness if they can see countryside or a garden from their hospital bed; nature relieves stress
- The cleansing and renewing of the Earth
- Human beings not just to preserve but to manage (e.g. knotweed in Grasmere)

### **Diversity in Cumbria**

Natural habitats are very diverse but intensively managed. There was discussion on fell farming and fell walking, with danger of overgrazing and interference. There is a need for economic stability to preserve the heritage. In nature there are boom times and hard times. If there is boom in the rabbit population, predators such as foxes increase in numbers. We perhaps jump in too quickly to regulate naturally occurring ups and downs. We see only the short-term gains not the long-term consequences. The main problem is conflicting interests, of the claims of economics over biodiversity. Different opinions need to be balanced: beauty and accessibility; economic stability, expectations. Compromise is needed in view of these differing opinions and needs as well as local variations.

There was discussion on imported species and their effect on native species, in particular, knotweed, grey squirrel, Himalayan balsam. There are 150 exotic species which enter this country each year; most will die but some will colonise. They can throw the ecosystem out of kilter. Should we discourage this, as most of our garden plants are imported species? Does it matter if our red squirrel dies out; we still have a squirrel, the grey squirrel?

Is GM good? Is it better to let nature take its course? We didn't do enough research to understand the effects of depleted uranium. We need more research on GM. However, we need to remember that we only survive today because people in the Fertile Crescent thousands of years ago learnt to improve wild cereals to produce wheat to feed the world. Most of the benefits of GM are for the Biotech companies; they can manipulate the market by producing infertile seed so that producers have to buy new seed each year instead of using some of what they have produced for the next year's crop.

### **Cumbria Biodiversity Partnership**

The idea for the Biodiversity Initiative came from the Earth Summit; as a means of prioritising what was most in need of conservation. A biodiversity plan was instituted for the whole of Great Britain, devolved to county level. Locally there was wide consultation and then a plan was drawn up which was made available in libraries and on the web. About twenty organisations were involved: County Council, wildlife groups etc. 40 species were identified as vulnerable, e.g. natterjack toad, hay meadows. Each has a plan plus a named individual/group/organisation that is overseeing the plan. Someone asked why the hen harrier was excluded from the plan; there had to be a compromise between tourist pressure, upland farmers and the big landowners. There is always a shortage of money, but additional money is now available to help where there are problems.

Is this helping Cumbria in any way? It can help in tourism, with low flying aircraft and hill farming. Through the Heritage Lottery Fund it can give people access, not necessarily physically, but through TV/books etc. The three aims of the partnership are to provide economic regeneration, heritage access, and biodiversity, e.g. all three are met by paying a local nursery to grow trees to plant locally to provide biodiversity and attractive scenery.

A current concern is the issue of application for World Heritage Status. The original application was turned down because Lakeland was not wild enough. The new application now stresses its heritage.

There is a need to educate tourists about ecosystems. People enjoy wildlife documentaries. They should understand the need to conserve that wildlife. Outdoor centres are a valuable resource for this. The John Muir Trust encourages youngsters to explore and conserve – e.g. canoe and litter pick.

A new partnership in Cumbria, *Wealth of Wildlife*, led by David Muir, also involves the Tourist Board and the County Council. There is a Cumbria website which tells people where and when to find individual species. There are also guides on mobile phones.

### **How Can We Help to Sustain Biodiversity?**

Volunteer to:

- Collect information: species/habitat surveys and monitoring
- Give out information
- Undertake practical conservation work
- Do repairs
- Lead guided walks
- Become bat workers to explain the protection laws
- Help with administration: maintain information databases
- Lobby

## **GREENING OUR FOOD WORKSHOP**

**Mike Downham, Low Luckens Organic Resource Centre**

### **Why food is a good focus for personal action:**

- We eat three times a day
- Big and diverse impacts on sustainability
- Good food is a pleasure personally and convivial
- Lots happening in Cumbria to take advantage of
- Impact on world poverty issues

### **Impacts of Food on Sustainability:**

#### **1. Land use:**

- Livestock farming uses more land for equivalent food value than arable in some areas.
- Cows produce methane.
- Waste management for use as fertiliser or fuel - not left to pollute land and water.
- Maintain rural employment/communities.
- Plan crops for biodiversity and sustainability.
- Intensive farming consumes energy and chemicals as fertilisers, pesticides, herbicides, and animal medicines.
- Landscape.
- House building on green land reduces food growing area.

#### **2. Energy and water inputs**

Intensity, method, etc

#### **3. Processing and packaging**

#### **4. Transport:**

- 40% of wagons on roads are carrying food.
- Air-miles are used to bring us out of season food from abroad.
- Food-miles waste energy and produce carbon dioxide.
- Local food consumption supports rural communities

#### **5. Health:**

- Diet choices lead to good health or poor health e.g. obesity, diabetes, heart problems.
- 2 billion poor people suffer malnutrition, or starvation but our systems of farming can be unsustainable in poorer countries because of their need for fertiliser and water.
- However, what we eat profoundly affects them (imported cash crops, seasonality, fair trade). Also very detrimental effect of our producer subsidies.
- Additives and residues (medicines, herbicides, pesticides) in processed food.
- To keep fresh during transport and storage and the need to process and /or package is a further waste of resources.

- Antibiotic use in animals can lead to resistant bacteria.
- GM.
- Positive factors in organic food.

#### 6. **Marine Environment:**

- Overfishing can lead to extinction.
- 90% of natural fisheries now gone.
- Damaged by pollution.

#### 7. **Cultural Impact:**

- Eating together builds family and friendship bonds.
- Seasonal variation of foodstuffs gives rhythm and stimulation
- Cooking and preparing meals can give pleasure.

#### 8. **Food Waste:**

- Lost in collection, storage and delivery systems.
- Left over and thrown away.

#### **Things to Consider When Sourcing Our Food:**

- How has it been produced (organic, fair trade)?
- Where has it been produced (transport costs, local, best of all your own garden)?
- Taste
- Is it in season? If not, do you really need it (e.g. out of season tomatoes)?
- Fresh versus processed.
- Shelf-life / sell-by date.
- Packaging use.
- Can you make a mutually useful ongoing link with the producer (e.g. farm shop, farmers' market)?
- Price (real cost of food).

#### **Ideal Order**

(But it was noted that compromises will be needed.)

1. Grow your own. Garden / allotment / community ground.
2. Buy direct from producer.
3. Use local shop that sources from as limited an area as possible.
4. Supermarket.

#### **Personal action choices in relation to food:**

Each participant wrote down one action to take now, one to work towards, and one new way to make their voice heard, on postcards that were subsequently posted back to them

Personal actions chosen included:

- Sourcing more local/organic/fair trade food
- Growing more of my own
- Planting apple trees
- Choosing more fresh food

- Choosing seasonal foods
- Baking bread
- Avoiding plastic packaging

New ways to make voice heard included:

- Talking to friends and neighbours
- Discussing origins of food being eaten when entertaining guests
- Organising meetings about food issues (church, PCC, village, WI)
- Lobbying for more allotments
- Connecting with Lib. Dem. Green group
- Promoting Fairtrade status for my town
- Asking shops for local/organic/fair trade food
- Lobbying MP
- Teaching school children about seasonal foods
- Protesting against prejudice against imperfectly shaped vegetables/fruit
- Campaigning for plastic bag charges

## CAMPAIGNING ON ENVIRONMENTAL ISSUES WORKSHOP

### Phil Davies, Eden Local Agenda 21

**Imagine** a corridor of posters showing:

(i) A low energy light bulb    (ii) Rainforest destruction    (iii) Eco-house

You are asked to choose. Which would you go for? Most people go for the eco-house. The light bulb, symbolising energy issues, is seen as dull. We think we have heard it all before with regard to rainforests. But an eco-house seems to offer a brave new future.

Yet in reality an eco-house will cost £300,000, even if it gets planning permission, but the speed of rainforest destruction is still increasing, and energy issues are right at the centre of global climate change and therefore crucial. We mustn't hide from what is important and showcase only that which is exciting.

### Why Do We Need to Campaign?

1. It is all our responsibility to change things; not just the Government's.
2. There is a need to raise awareness and to increase understanding of relevant facts and information.
3. We need to make action happen and influence policy.
4. We need to counter apathy.
5. WE DON'T HAVE MUCH TIME LEFT.
6. We need to take control.
7. Joining forces empowers individuals and groups and gets more attention.
8. We are subjected to advertising every day, explicit and implicit, that promotes consumerism and we need to counter this.

The group felt that campaigning needs to be professional in order to make things happen. It is important to make use of local skills and national resources that are available. Successful campaigning must involve the right people.

### Who Should We Campaign To?

Individuals

Interest groups, e.g. oil companies

Politicians

Gatekeepers, i.e. those who hold the key to money and resources and who have connection and influence

### How Can We Campaign?

Engage, enable, inspire, encourage, exemplify, celebrate – but how?

Need to engage peoples' interest.

Move from the problem to the solution.

Use media: email, magazines, radio, TV, newspapers, parish magazines, billboards, text messaging.

Use the skills of people.

Emphasise the state of the environment.

Use the education sector- target children, who are not yet set in their ways.

Should we incentivise, e.g. win an IPOD for getting your parents to promise to recycle?

## Methods

- Shock / in your face
- Repeat and reiterate
- Make it fashionable and cool
- Participation; give people something to do
- Gatherings and rallies
- Petitions and lobbying
- By example
- By celebration
- Make it positive: what can be done? Don't ignore the negatives, but engage and enable through the positive outcomes of change.

It was felt that the manner of the campaign should be tailored to suit the target group.

The workshop groups considered how to campaign on the topic of energy efficiency in the home. One group felt that:

- More information and knowledge is required, as 20% of CO2 emissions come from the home.
- People need to be able to see the difference (i.e. smart electric meters, rationing of energy). One member of the group commented that she had recently had a holiday in one of the cabins at the Centre for Alternative Technology in Wales where resources are rationed and there is also the education element. It was felt that this experience could be built on.

## IS NUCLEAR GREEN? A WORKSHOP TO LOOK AT OUR LOCAL LEGACY

**Dr John Biggs**

We began with an assessment of why there should be a sense of urgency in resolving our future sources and uses of energy, with a reminder that the Prime Minister had indicated at the Labour Party Conference that the nuclear option was still open.

The urgency arises because of the build-up of greenhouse gases in the atmosphere, especially CO<sub>2</sub> from the burning of fossil fuels, leading to climate change, which is increasingly seen as being on the world's agenda. The Intergovernmental Panel on Climate Change (IPCC) issued its Third Assessment in January 2001. The changes that have already taken place include:

- Global average surface temperature increased by 0.6 °C over 20<sup>th</sup> century
- Snow cover reduced by 10% since late 1960s
- Northern hemisphere spring and summer sea-ice decreased 10-15% since the 1950s
- Sea levels rose 0.1 – 0.2 metres during 20<sup>th</sup> century

It predicted changes in the period 1990 to 2100:

- Global Surface Temperature up 1.4 – 5.8 °C (average 3.6°C) [Second Assessment had predicted 1.0 – 3.5 °C]
- Sea levels up 9 – 88 cm (average 48cm = 20in)

There is evidence that there is a widening gap between the world's oil supply and its demand, exacerbated by sharp increases in demand for oil from India and China.

It is against this background that the questions are posed. With Britain's nuclear power plants steadily closing down until 2020, can renewable energy sources ('renewables') make up the shortfall? If we are to meet government targets for reductions in greenhouse gas emissions, can renewables replace fossil fuels to any significant degree? Should new nuclear power plants be commissioned to fill any gap until such time as renewables can come sufficiently on stream?

The targets accepted by our Government fall into two headings.

### *Kyoto targets*

Greenhouse gas emissions to be reduced by 12.5% by 2008-2012

Carbon dioxide emissions to be reduced by 20% by 2010

### *Government targets to achieve this (accepted 2000)*

Renewables to supply 5% of UK electricity by end of 2003 (this failed)

Renewables to supply 10% of UK electricity by end of 2010 (not currently on target)

Renewables to supply 20% of UK electricity by end of 2020

Part of the debate concerns cost. Both industry and power-supply companies will not wish to incorporate renewables if their cost is significantly above the 'pool' price of electricity, currently dominated by fossil fuel sources. The one large-scale source of renewables that has become reasonably competitive is wind, and the Government has put considerable resources into this, led by the report of the Performance and Innovation Unit

(PIU) of February 2002, which contained the following summary of costs of energy sources:

<b>Technology</b>	<b>2000 cost (in p/kWh)</b>	<b>2020 cost (in p/kWh)</b>	<b>Confidence in estimate</b>	<b>Cost trends to 2050</b>
Large CHP	less than 2.0	less than 2.0	High	Limited decrease
Micro CHP	3.5	2.5 – 3.5	Moderate	Sustained decrease
Fossil fuel with CO <sub>2</sub> C&S		3.0 – 4.5	Moderate	Uncertain
CCGT	2.2	2.0 – 2.3	High	Limited decrease
Coal (IGCC)		3.0 – 3.5	Moderate	Decrease
Landfill gas	2.5 – 3.0	2.5 – 3.0		
Onshore wind	2.5 – 3.0	1.5 – 2.5	High	Limited decrease
Offshore wind	5 – 6	2.0 – 3.0	Moderate	Decrease
Energy crops	6 – 8	2.5 – 4.0	Moderate	Decrease
Tidal stream	more than 8	4.0 – 8.0	Low	Uncertain
Wave	4 – 8	3.0 – 6.0	Low	Uncertain
Photovoltaic	70	10 – 16	High	Sustained decrease
Integrated Photovoltaic		5 – 7		Sustained decrease
Nuclear	1.8 – 6.0	3.0 – 4.0	Moderate	Decrease

A more recent report of the Royal Academy of Engineering (March 2004) attempted to cost energy sources not only by production costs, but also to make allowance for their environmental impact. Thus, in the following table, base-load plants are costed to also include costs incurred for CO<sub>2</sub> capture:

	p/kWh	with CO <sub>2</sub> costs
Gas-fired CCGT	2.2	3.2
Nuclear fission	2.3	2.3
Coal pulverised-fuel steam	2.5	5.0
Coal circulating fluidised bed steam	2.6	5.0
Coal integrated gasification combined cycle	3.2	5.2

And Renewables are costed also with the added cost of standby generation necessary for any intermittent supply (e.g. wind power when wind is insufficient or too strong)

	p/kWh	with standby generation
Poultry-litter fluidised steam	6.8	6.8
Onshore wind farm	3.7	5.4
Offshore wind farm	5.5	7.2
Wave and marine technology	6.6	6.6+

An even more recent report is from the Sustainable Development Commission (*Wind Power in the UK*, May 2005) which includes a comparison of the current wholesale price and that of wind power:

	p/kWh	additional system cost
Wholesale price	about 3.0	
Onshore wind	3.2 ± 0.3	0.17
Offshore wind	5.5 ± 0.3	0.17

### Arguments for nuclear power

No CO<sub>2</sub> emissions; not climate changing

Uranium is sustainable (but not renewable) – there are supplies for 1,000 years.

Provides baseload electricity

Plants constructed in the future will be built with the proven technology improved and therefore will: be more reliable, need less servicing, be able to run for longer sustained periods, be somewhat cheaper to run, use fuel more efficiently, be easier to decommission

Intensive: takes up little land

Problems of waste have been exaggerated

The legacy has also been exaggerated; technology for the disposal of waste is available

Can fill energy gap until renewables are sufficient

Capital intensive with lower running costs.

Cost comparable or less than renewables

Increasing public unease with wind farms

Mistakes have been made in the past but there is much disinformation

Gift of God to be exploited

### **Arguments against nuclear power**

Huge nuclear footprint for future generations; nuclear waste remains lethal for thousands of years; there is already a huge residue of radioactivity from the past

No consensus on waste disposal

Security risk: possibility of terrorist attack on Sellafield

Provides plutonium, the fuel of nuclear weapons; could be obtained by terrorists too

Our energy needs can be met by renewables

Invasive form of energy contaminating land, water

Generates unacceptable levels of radioactivity

Hidden costs

Underpins economic growth

Funding nuclear power would divert funding from development of renewables

### **Waste Management**

Current major review

Do we have long-term surface storage (not out of sight, out of mind)?

Or do we bury it?

The historic legacy has to be dealt with before decisions can be made about future provision of nuclear power.

There are moral, ethical and philosophical issues alongside the practical ones of the technology.

### **Other Discussion Points**

- Need for more tolerance of the other point of view.
- Must weigh up the advantages of nuclear and renewables (particularly wind farms) Wind is not available all the time and therefore needs back up. Is this best provided by nuclear?
- There needs to be a recognition that in the past sometimes the local people have been more sound in their judgements than the big national and international bodies. Therefore note should be taken of their views.

## **CLOSING LITURGY**

### **Lancaster RC Diocese Faith & Justice Commission**

Music: Rodrigo's Guitar Concierty de Aranjuez

#### **Luke 11:1-4**

He was praying in a certain place, and after he had finished, one of his disciples said to him, 'Lord, teach us to pray, as John taught his disciples.'

He said to them,

'When you pray, say:

Father, hallowed be your name.

Your kingdom come.

Give us each day our daily bread.

And forgive us our sins,

for we ourselves forgive everyone indebted to us.

And do not bring us to the time of trial.'

A Meditation on the Lord's Prayer

Our Response to the Day

Intercessions

Sung Peruvian Gloria

For further copies please contact:  
Helen Boothroyd  
Social Responsibility Administrator  
Churches Together in Cumbria  
Chapel View  
Milton  
Brampton  
Cumbria  
CA8 1JD  
[helen.boothroyd@ntlworld.com](mailto:helen.boothroyd@ntlworld.com)