



GUILDFORD ENVIRONMENTAL FORUM

newsletter

JUNE 2010

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Turn to back page for our future events



Remember?

AS THE CLOUD of volcanic ash grounded all aircraft movements in large parts of northern Europe in April, we suddenly discovered that although inconvenient (even for Guildford Environmental Forum) the absence of aircraft did not mean the end of the world, or even that the sky fell in. Maybe this is a good time to reappraise society's assumption of dependence on air travel.

Instead the ash treated us to a few days of clearer skies without the usual graffiti of condensation trails. We could see what real high-level clouds looked like. This view was taken from Holmbury Hill in the south-east corner of the Borough on the first day of the ban (and includes a place called "Gatwick" beyond Leith Hill).

Raymond Smith

The closure of UK airspace in April enabled scientists to prove that airports themselves are significant causes of pollution. Previously, aircraft pollution could not be measured separately from pollution caused by vehicles operating nearby.

The Environmental Research Group from King's College, London, analysed air quality at Heathrow and Gatwick airports during the first three days of the shutdown. Results showed that levels of the two major pollutants associated with jet aircraft – NO₂ (nitrogen dioxide) and NO_x (the generic term for oxides of nitrogen, taken together) – fell virtually to zero. These substances can exacerbate breathing difficulties in older people and those suffering from cardiac conditions, and can react with sunlight to form ozone.

Researchers from the Group will also be studying the effects on pollution of the fall in airport motor traffic during the shutdown.

MEMBERSHIP RENEWALS

We thank members who have renewed their subscriptions for the year 2010 to 2011.

If however you have not yet renewed your subscription or would like further information, please send your subscription to the Treasurer or contact our Membership Secretary (contact details on the back of the newsletter).

We are keeping the annual subscription at only £5 per year or £7 for two people at the same address.

If you are not yet a member we would be delighted to enrol you. Please contact our Membership Secretary or any officers listed on the back of the newsletter and we will send you an application form.

ALL SET FOR A FRESH START *by John Bannister*

OUR 2010 ANNUAL GENERAL MEETING on 12 May was the last for me as Chairman. I've filled that role for over seven years and felt that the new leadership would take the Forum to even greater heights. Raymond Smith, who has served the Forum as Vice Chairman, is the new Chairman.

My annual report identified the Forum's achievements over the year just ended: we have

- ◆ engaged fully with the public through presentations, visits, stalls, films and newsletters, exceeding even previous years.
- ◆ developed our own website www.gefweb.org.uk independent of Guildford Borough Council, thanks to Raymond Smith.
- ◆ founded Transition Guildford www.transitionguildford.co.uk, attracting an expanding group of young people.
- ◆ helped Trudy Thompson establish Bricks and Bread www.bricksandbread.com and the Sustainable Living Centre.
- ◆ funded rain-harvesting at schools in Uganda through the Guildford-Mukono Link www.guildford-uganda.com.
- ◆ worked with several Guildford schools – St Peters, Sandfield, Send, the County, Kings College, etc.
- ◆ started a major project in conjunction with Transition Guildford to retrofit Bushy Hill Community Centre with new boilers and insulation. We have funded an energy study and raised £2,000 to date.
- ◆ supported local conservation volunteers on Pewley Down and Henley Wood/Green Lane.
- ◆ remained active in the Guildford Local Strategic Partnership, Guildford Business Forum and the associated Rural Group.
- ◆ supported the Guildford Greening Campaign, Chris Coventry providing a strong lead in the Horsleys.

◆ built even stronger links with other local "green" groups – Guildford and Waverley FOE, Transition Guildford, Geographical Association of Guildford, WWF – and worked with Guildford Borough Council.

I was anxious to hand on the baton with the Forum in the strongest possible condition and over the last few months some excellent new people have been recruited into key positions. Your committee is now as follows:

Chairman	Raymond Smith
Vice Chairman	Damien Short
Waste and Recycling	Lucy McSherry
Transport	Alastair Atkinson
Renewable Energy	Jenny Barnes
Sustainable Construction	Trudy Thompson
Food for a Future	Alwyn Marriage
Biodiversity	Raymond Smith
Community Projects	John Bannister
Schools	John Bannister
Membership Secretary	Chris Coventry
Treasurer	Adrian Thompson

Our Newsletter Editor is Clare Windsor.

This is the strongest leadership team we have had for some time. Our sincere thanks are due to Stephen Rainbird who has done sterling work over the years on both the Waste and Food groups, and to Howard Allison who has done an excellent job as Treasurer and much more besides for a long time.

Following the formal business, Surrey Wildlife Trust's Sarah Jane Chimbwandira gave a fascinating talk on the Trust's 'Living Landscape Project', which ended with a lively question and answer session.

FOOD FOR A FUTURE

A NEW GROUP, called 'Food for a Future', has recently been formed within Guildford Environmental Forum. The group is being chaired by Alwyn Marriage, who until recently chaired the Transport Group, and she would be pleased to hear from you if you would like to be involved. Have you got knowledge or experience that you could share with others? Would you like to organise a seed swap or an allotment day? What subjects would you like to see covered by the new group?

Some of the issues that were covered by the earlier Forum group, 'Grow your own food', will still be on the agenda; but the range of topics will be wider and will probably include such issues as Organic Food, Vegetarianism, Feeding a Hungry World, Food and Transport, Eating Local Food, Fair Trade, and What Happens to our Food Supply When Oil (or Water) Runs Out?

Alwyn's email address is a.marriage@surrey.ac.uk

The long view

The Natural History Museum in London houses 70 million specimens. Spending just one minute viewing each would take 130 years.
(Source: BBC Wildlife, April 10)

Waste – 1

In 1990, a 25% target was set for recycling of household waste. Even though we've reached the target, the amount we consume has risen so steeply that unrecycled waste has fallen only slightly.

Waste – 2

Only 9% of total waste is domestic, but the government is reluctant to confront powerful business interests. Regulations exist but they are opaque, fitfully enforced and disjointed.

(Source: New Statesman, 1 Sept 08)

FACTS & FIGURES

Conservation success

North Sea cod, once on the brink as a result of decades of overfishing, has started to recover. WWF says that it has been saved through a combination of conservation techniques, which have reduced the numbers tossed back dead into the sea, and cuts in landing quotas.

(Source: The Independent, 15 May 10)

Life is short

Life expectancy in Zimbabwe in 1980, when Mugabe came to power, was 59.1 years. It's now 45.8 years.

(Source: New Statesman, 26 Apr 10)

Food emissions more challenging than thought

by John Bannister

FRIENDS OF THE EARTH and others have been telling us that the food we eat in the UK accounts for 18% of our overall greenhouse gas emissions. However, it now transpires that these are only the direct emissions associated with our food. A recent study by the Food Climate Research Network (FCRN), based at the University of Surrey's Centre for Environmental Strategy, is showing that when both the direct and the indirect land use changes associated with our food are taken into account, the proportion of UK consumption emissions attributable to our food rises to 30% of all UK emissions.

To meet the UK legally-binding target for the reduction in greenhouse gas (GHG) emissions of 80% by 2050 under the Climate Change Act, it is suggested by WWF-UK and FCRN that our food-related emissions need to be cut by 70% by 2050.

FCRN have examined how this might be achieved while we still eat enough to live well. In summary they conclude it will need a combination of strategies. These are

- 1 An energy-based programme focusing on the de-carbonisation of food processing, cooking and refrigeration, plus the de-carbonisation of energy used in transport.
- 2 An emissions-led plan centred on reductions in direct GHG emissions, such as methane from cows and sheep and nitrous oxide from fertilizers; and improved crop yields and improved livestock genetics.



sheepofthepasture.com

- 3 A conservation approach targeting waste avoidance and using wasted food to generate energy coupled with changes to our food consumption patterns in the UK.

Each of these strategies alone will not deliver a 70% cut by 2050. There are also doubts and uncertainties about just how much scenario 2 would be able to deliver, and the de-carbonisation envisaged in scenario 1 will be difficult and expensive. Therefore, a combination of these strategies will be needed, and the extent to which we will have to cut back on eating livestock products (meat and dairy) in scenario 3 will depend upon the cuts in emissions that can be achieved by other means.

Globally, most people do not consume nearly as much meat and dairy produce as we do in this country. If UK dietary habits were to become prevalent across the developing world, global emissions would increase dramatically. So it seems only fair that we should consume fewer livestock products, allowing those in the developing world who are undernourished to eat a little more. A resulting added benefit for us would be improvements to our health.

To learn more about the FCRN study we have arranged for them to give a talk as shown in the calendar on the back page.

No matter how small your outside space or balcony, there is always space for wildlife!



Mary Bridge's lovely garden that won the Garden for Wildlife category last year.

THE GUILDFORD IN BLOOM Committee would like to recognise the effort that Guildford's residents put into making their gardens a haven for wildlife.

Enter your garden into the Best Garden for Wildlife Category and maybe win a prize. Entry forms can be found on the back of the Guildford in Bloom newsletter, the *Green Thymes*, or you can contact Alison Carter at Guildford Borough Council on 01483 444715 or parks@guildford.gov.uk for more details.

Closing date for entries is Monday 21 June. The judges are due to judge all entries between Monday 28 June and Friday 9 July.

RIVER WEY FLOOD RISK MANAGEMENT DRAFT STRATEGY 2010

public consultation document

Comments of Guildford Environmental Forum

(prepared by Alastair Atkinson and Raymond Smith)

Whilst the Forum supports the publication of the long-term plan, we make the following comments.

Water Framework Directive

We would like to be reassured that the strategy in the plan is compatible with the implications of the Water Framework Directive.

Level of protection

If the plan is to maintain the 1 in 20 year level of protection for Guildford into the future even when allowances for climate change have been made, there must therefore be schemes envisaged to make this possible. It should therefore be possible to implement the schemes earlier and provide a better level of protection to Guildford in the interim and allow the level of protection to drop back to 1 in 20 years at the end of the plan period. Why is this not being considered?

The level of protection of 1 in 20 years is likely to blight areas and properties and therefore we urge the Environment Agency to Inform the Guildford Borough Council of the funding opportunities provided by DEFRA for the property flood resilience grants.

Strategic planning

The River Wey and its flood plain provides a valuable opportunity to create a river corridor for wildlife which could be enhanced when urban regeneration occurs and could also reduce the flood risk to the area. However, this area runs through the heart of the town and could act as a barrier between the town and the railway. Therefore, we believe the Environment Agency and the Council should create a plan for the river corridor which takes into account both the flood risk



Raymond Smith

issues and if appropriate the wider sustainability of the town. This plan should be produced earlier rather than later to ensure the planning

and flood risk issues are interlinked and could support the next Core Strategy.

Long term measures

a) We cannot see why the review of research on land uses and the Environmental Stewardship schemes would be long term measures (i.e. not for 25 years) rather than short term (i.e. less than 5 years). We believe these should be implemented in the short term to try to mitigate the flood risk and then be reviewed regularly.

b) Whilst river flooding is confined to a small part of the overall catchment, the origin of the floods is diffuse, being obviously an aggregation of rainfall. The physical management options considered in this document are, however, concentrated in the proximity of the river.

In rural areas such as cover a large part of the catchment, much of the rapid run-off is derived from roads. It seems to us that improved management of this run-off, using the increasingly well known methods of "sustainable drainage systems" throughout the catchment would reduce flooding lower in the river valley, by slowing down discharge. If the principle of the systems used is to increase groundwater recharge then this would have the added advantage of supporting flows during dry periods with obvious wildlife and navigation benefits, and also protecting water resources which are already over-licensed in some areas. This approach would be of increasing value as the effects of climate change take hold.

Nightingales

Nightingale numbers in England dropped by 60% between 1994 and 2007. A recent study carried out for the British Trust for Ornithology suggests that deer are to blame.

When browsing in woodland, the deer destroy the understorey of shrubs and bushes – the nightingale's key habitat.

(Source: *Independent*, 24 April 10)

Consumers rule

Expected deforestation up to the year 2050 – feeding the demand for wood floors, garden furniture and ministerial front doors – will have the effect of releasing more than 34 billion tonnes of carbon dioxide, somewhere close to the UK's entire emissions over the course of 60 years.

(Source: *New Statesman*, 19 Oct 09)

What's that?

In a 2008 survey, 38% of 9-11 year-olds couldn't identify a frog.

(Source: *Natural World*, Spring 09)

FACTS & FIGURES

Natural remedy

Chimpanzees are known to supplement their plant meals with kaolin clay. Recent research has revealed that kaolin activates chemicals in the leaves of *Trichilia rubescens*, their favourite food, which fight the malarial parasite. This could lead to new anti-malarial drugs for humans.

(Source: *BBC Wildlife*, July 08)

Population and economic growth

by Richard Weavis

THERE IS A GENERAL feeling that both population and economic growth are necessary for the security and prosperity of a country and there appears to be little challenge to this. As if to confirm this a number of articles and reports tell us to expect a sizeable growth in world population from around 6 billion to around 9 billion sometime this century.

I have not read the Stern report, but listening to Lord Stern recently I understand that a world population of 9 billion will be allowed an annual carbon footprint of **2 tonnes of CO₂ per person** to prevent climate destabilisation.

In the UK our current carbon footprint is around **12.5 tonnes per person per annum** and in the USA around **25 tonnes per person per annum!** The proposal as I understand it is that we will purchase carbon credits from countries where the average CO₂ per person is less than 2 tonnes until we stabilise our own emissions but, given that most rapidly developing countries including China and India probably exceed this average figure already, how is this likely to work?

And of course hand-in-hand with population growth goes increased food production and economic growth, both requiring considerable energy input. This makes near impossible the already difficult task of rapidly stabilising emissions within the timescale strongly recommended by climate scientists.

So, instead of just simply accepting population and economic growth as inevitable, should we not be challenging this potentially self-destructing ideology and allow a better quality of life to all living things.

For more information on population growth and its effects contact the Optimum Population Trust, a registered Charity, at www.optimumpopulation.org or phone 07976 370221.



"Not waving but drowning"

by John Bannister

ACROSS THE WORLD millions of people live close to the sea on low-lying land. Estimates indicate 600 million are at risk. Some are already being displaced by rising sea levels and many more will be. So pressures on migration and immigration are bound to rise as inexorably as the sea itself. The simplistic debate on immigration during the election did not for a moment recognise this.

The rate at which sea level rises is a function of the rise in temperature of the sea and the rate of glacial ice melt. Both are accelerating and both are being caused by global warming.

The delta of the Ganges in the Bay of Bengal shared by India and Bangladesh spans a distance of more than 400 kilometres and is one of the world's locations most at risk. Here sea level has been rising at 5mm a year over the last decade, whereas until 2000 it was only rising at 3mm a year. One of the disputed Sanderban islands has already disappeared and others are being overwhelmed. In Bangladesh alone 18% of the land or 20 million people could, according to some models, be inundated by 2050.

Here at home a recent study by the South East Climate Change Partnership, with Arup and others, recommends contingency allowances for net sea level rise when addressing adaptation in the East of England, East Midlands, London and South East England of 4mm per annum from 1990 to 2025, rising to 8.5mm/a from 2025 to 2055, 12mm from 2055 to 2085 and 15mm/a from 2085 to 2115. Our region, the South East, has the highest likelihood of worsening flooding of all the regions with over 100,000 homes likely to be flooded.

A SOLAR HOT WATER SYSTEM: some personal experiences

by Howard Allison

WE HAD A SOLAR thermal system installed in our house in 2008, and the following notes describe our experiences and assess how effective and useful the system has been during its first year of operation.

Our household consists of two adults living in a bungalow, which had a loft conversion to create two additional bedrooms and a bathroom upstairs. Before the installation we had a gas- heated boiler for providing hot water, radiator central heating and some cooking, using a cooker with gas hobs, an electric oven and electric grill. In 2004 we replaced the old conventional boiler with a condensing one. For a number of years I have recorded monthly gas consumption by checking the meters on the last day of each month and using the data to calculate gas savings made, first of all by changing to the condensing boiler and later by adding the thermal hot water system. Annual and monthly figures of gas consumption have been recorded from 2005 to 2010, but unfortunately only annual figures from 1998 to 2004.

If one considers obtaining a quite expensive solar thermal system, it is essential to ensure that simpler and cheaper energy-saving measures have all been considered and if possible undertaken. These include adequate loft and cavity wall insulation, low-energy lighting and thermostatic radiator valves. Also one should make simple changes in domestic habits, such as switching off unused lights and equipment and perhaps using a shower instead of a bath. We had already tried to implement such measures and also to obtain the most energy-efficient equipment when old items

needed replacing. Many such measures save at least as much energy as solar thermal.

Solar thermal works by installing solar collecting panels on a southerly-facing roof which convert light energy from the sun into heat energy. This heats a heat transfer fluid contained in a closed system circulating from the solar panel to a coil in the hot water cylinder thereby heating water in the cylinder, then out of the cylinder back to the solar panel. The circulation is driven by an electric pump which only functions when the fluid in the collector reaches an appropriate temperature. In addition there is a similar system originating from the boiler as a standby when solar heating is insufficient. Hot water is of course available from the taps, but the solar system makes no contribution to central heating, which requires a boiler or other means of providing hot water for the radiators (see diagram).

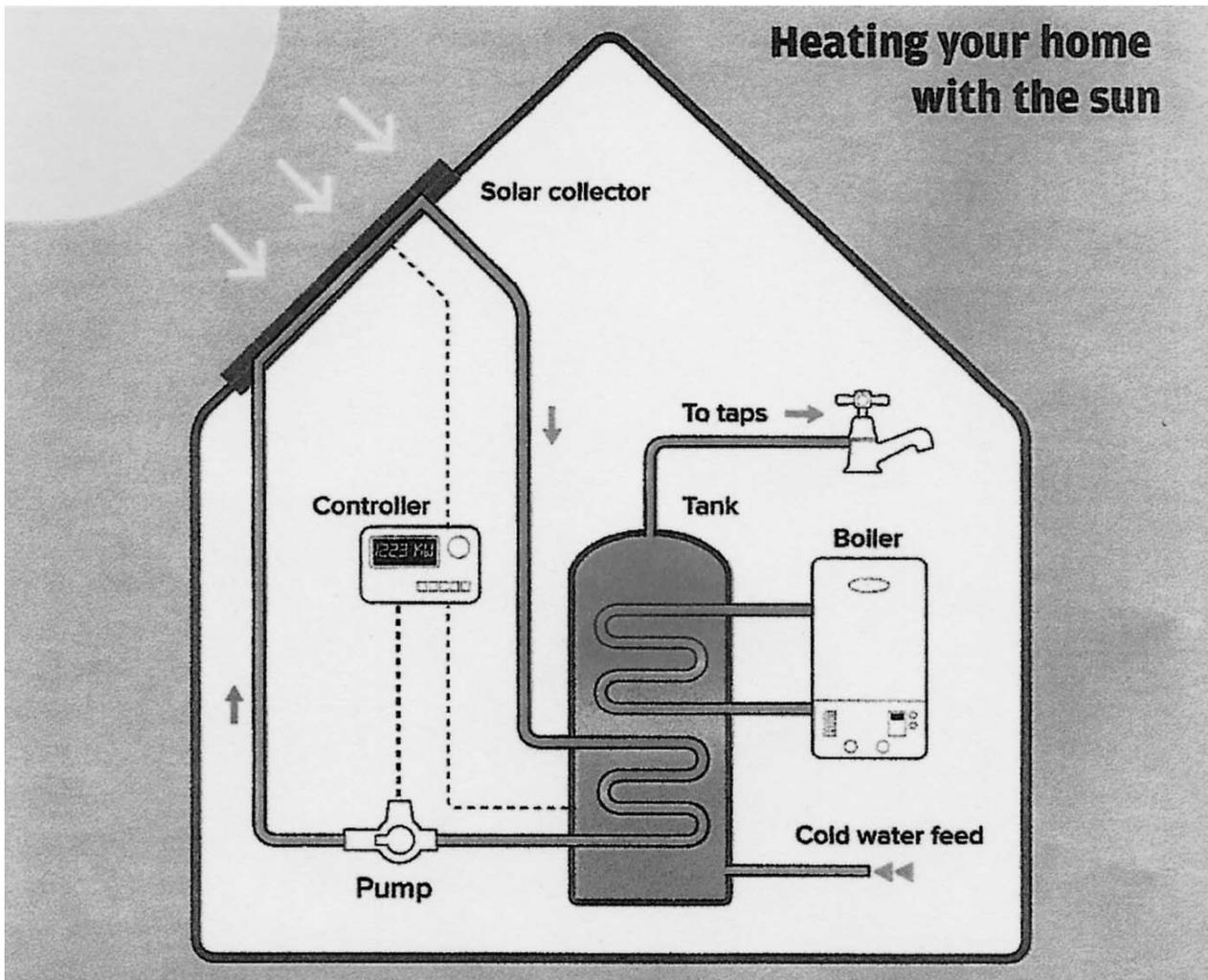
A monitor is situated near the cylinder and this shows when the solar fluid is being circulated, together with the temperatures in the collecting panel and at the top and bottom of the cylinder. Although some water heating occurs during bright days in the colder months of the year, the amount is small and it is only during the period May to October that substantial amounts of hot water are produced.

Details of gas consumption before and after installing the condensing boiler, together with those for 2009 when the solar system was in full operation, are shown in the table below.

In retrospect I regret that I do not have monthly totals for 1998 – 2003. However, assuming the annual amounts of gas used do not vary much from year

Average annual gas used (units)	1998-2003 (units)	2005-2007 (units)	2009 (units)	Presumed savings due to condensing boiler (units) (%)	Presumed savings due to solar thermal (units) (%)
Total	406	286	190	120 units (30%)	96 (34%) **
'Cold period' Jan-Apr + Nov-Dec	n.a.	220	169	n.a.	51 (23%) **
'Warm period' May-Oct	n.a.	66	21	n.a.	45 (68%) **

** The presumed savings due to solar thermal in the cold period of 2009 are almost certainly much too high, because the calculation is based on the **average** total use for previous years. As the main use of gas during the cold period is for central heating, we cannot be certain in any one year whether the average is appropriate and it could be considerably higher in some years. In the warm period little or no central heating is used, and the main gas use is for cooking with probably only a little water heating.



Solar illustration reproduced by courtesy of *Which?* from a recent article in its magazine

1. Solar collector converts light energy from the sun into heat energy.
2. Heat energy is then transferred to a heat transfer fluid. This is circulated through the solar collector using a small electrically powered pump.
3. Heat transfer fluid flows through the heat exchange coil at the bottom of the hot water cylinder. The heat is then transferred through the coil into the water.
4. Heated water rises to the top of the cylinder and is available at taps. Fluid is pumped to the roof again for reheating.
5. The boiler provides back-up heat or operates when solar energy is not available.

to year, it appears that the condensing boiler saved more gas than solar, with the proviso that we have only one year's experience; and unfortunately the very large apparent saving in the cold months of 2009 is almost certainly too high, perhaps because we happened to use less central heating than average in that period. If it is assumed that the saving in the warm months is more or less the total for the year, the saving would be only 45 units (or 16%). At all events it is suggested that the probable inaccuracies must be recognised, and at best the figures are no more than pointers to what we may have achieved.

No attempt was made to calculate financial savings because the cost of fuel has already markedly increased and we do not know what will happen to costs in the future except that they will probably rise.

I hope the above comments will be helpful, accepting of course that individual circumstances such as family size and many other variables will mean

that my experience can be at most a rough guide to what may be the result for other households.

Finally, for those who are thinking about water heating, photovoltaics or other energy-saving measures, I suggest that the following agencies may give valuable advice.

GUILDFORD BOROUGH COUNCIL

Millmead House, Millmead, Guildford, GU2 4BB.

Planning Department: 01483 444609 – this may be important because planning permission may be required in certain circumstances.

Climate Change Helpline: 01483 444509 – I have found the people on this number very helpful.

ENERGY SAVING TRUST

21 Dartmouth Street, London, SW1H 9BP.

www.lowcarbonbuildings.org.uk

Helpline: 0800 512 012.

Very helpful. They will provide a list of recognised installers, and give details of any grants for energy-saving measures and tariffs for installing low-carbon electricity and heating.

Planning policy and the historic environment

by Raymond Smith

AFTER A RATHER agonised consultation progress, the government launched the “**Planning Policy Statement 5: Planning for the Historic Environment**” in the spring. This reflects an even more protracted process aimed at simplifying the protection of significant historical remains, and uses the concept of a “Heritage Asset”. This is a “*building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment.*”

Some within the wildlife conservation circles hope that the inclusion of landscapes within this definition will be of value for wildlife preservation. “Historic” landscapes by their nature may be relatively undisturbed, and this inherent continuity may have ensured the survival of more complex ecosystems. The protection of a historic landscape may therefore help to protect the ecosystem.

The document also addresses the relationship between the preservation of old buildings and climate change measures. Here it says:

HE1.1 Local planning authorities should identify opportunities to mitigate, and adapt to, the effects of climate change when devising policies and making decisions relating to heritage assets by seeking the reuse and, where appropriate, the modification of heritage assets so as to reduce carbon emissions and secure sustainable development. Opportunities to adapt heritage assets include enhancing energy efficiency, improving resilience to the effects of a changing climate, allowing greater use of renewable energy and allowing for the sustainable use of water. Keeping heritage assets in use avoids the consumption of building materials and energy and the generation of waste from the construction of replacement buildings.

HE1.2 Where proposals that are promoted for their contribution to mitigating climate change have a potentially negative effect on heritage assets, local planning authorities should, help the applicant to identify feasible solutions that deliver similar climate change mitigation but with less or no harm to the significance of the heritage asset and its setting.

Ultimately it says that if there is a clear conflict a balance must be struck:

HE1.3 Where conflict between climate change objectives and the conservation of heritage assets is unavoidable, the public benefit of mitigating the effects of climate change should be weighed against any harm to the significance of heritage assets in accordance with the development management principles in this PPS and national planning policy on climate change.

This rather fudges the issue. Some of us would hope that the balance should be more clearly set in favour of the preservation of cultural remains. Put simply, there are better ways of reducing carbon use than by compromising listed buildings.

The Guidance that English Heritage has published to support PPS 5 takes a more upbeat approach. “*The historic environment has an important role to play in addressing climate change. The retention and reuse of heritage assets avoids the material and energy costs of new development. Many older settlements reflect good practice in sustainable urban design. They have compact layouts; co-locate employment, residential, retail and leisure uses; and, are usually near to transport nodes. The historic environment can inform and inspire the best modern, sustainable development.*” It then argues in more depth the environmental advantages of retaining older buildings rather than replacing them, in particular deprecating a narrow approach to what constitutes sustainability, and urging planners to keep abreast of current knowledge.

“**Planning Policy Statement 5: Planning for the Historic Environment**”

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/1514132.pdf>

“**PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide**”

http://www.english-heritage.org.uk/upload/pdf/Historic_Environment_Planning_Practice_Guide.pdf?1269365073

Spanish strawberries

WWF is taking action to save Doñana National Park in southern Spain from the impact of surrounding strawberry farms. Water extraction, both legal and illegal, is affecting water levels in the park. (Source: BBC Wildlife, Apr 09)

Laughing gas

Nitrous oxide is now the main ozone-depleting substance emitted by humans. It's produced by the breakdown of nitrogen in fertilisers and sewage treatment plants. (Source: BBC Focus, Oct 09)

FACTS & FIGURES

Our food – 1

The UK is 58% self-sufficient in foodstuffs overall, but 90% of all fruit and 50% of all vegetables are imported.

Our food – 2

The ‘big four’ supermarkets supply three-quarters of the UK's food. (Source: Living Earth, Winter 08)

Binge drinking

Many animals love a tippie. Some Australian parrots have found that sugar spilled from cane trucks and wet by dew overnight can rapidly ferment in the sun, providing free booze. And in West Bengal a herd of elephants once discovered an illegal distillery, drank 150 litres of alcohol . . . and then smashed down a village. (Source: BBC Focus, Sept 08)

Rubber and palm oil in the tropics

by John Bannister

MAN HAS BEEN exploiting the earth's resources since settlements and civilisations began. For example, Central and South American natives were well aware of the properties of rubber long before the Spanish conquest, when Cortez and Pizarro brought back the news to Europe that the Mayas and Aztecs played games with rubber balls.

What has transformed our exploitation of the earth's resources is of course the sheer scale of individual demands today and the vast global population making those demands. To date these demands have been heavily skewed to the rich countries.

The rubber boom

Back in the 1800s the demand for rubber from Brazil grew rapidly largely due to technology developed in Britain by pioneers like Hancock and Macintosh. The first factory for the production of "mackintoshes" opened in Manchester in 1824. A multiplicity of uses followed and by the time Michelin introduced the first rubber motor tyre in 1895 alternatives to Brazil had to be found. With the help of Kew Gardens millions of rubber plants were distributed by the British across the Far East and the West Indies. The establishment of plantations in the tropics had begun on a large scale, only for the demand for natural rubber to largely collapse by 1960, outflanked by synthetic rubber from petroleum. What happened next, particularly in Indonesia and Malaysia, was the replanting of the old colonial rubber plantations with palm oil.

Palm oil

The Dutch first introduced the oil palm to Indonesia in 1848 and large-scale production had begun by the early part of the 20th century. A native of West Africa, the oil palm is now an important part of the economies of Indonesia and Malaysia. These two countries account for 85% of global production. Other big producers are Columbia, Benin and some other West African countries. In Malaysia, palm oil is the third biggest foreign currency earner, with 95% of its palm oil production exported to over 150 countries, with export revenues of £10 billion in 2008.

It is a tropical plant and only produces fruit at an average annual temperature of 23°C, so it competes head to head with tropical rainforests.

Some efforts are being made to limit rainforest clearance and introduce sustainable palm oil, but because the plantations extend over such vast and sometimes remote areas standards cannot be upheld everywhere.

Unilever, the Dutch-British company, is the world's largest purchaser and processor of palm oil. It also currently provides the presidency of the Round Table for Sustainable Palm Oil (RSPO), which wants to show that palm oil cultivation can be carried out in a manner which simultaneously protects primary forests and indigenous people's rights to use them – a claim some NGOs dismiss as greenwash. Nevertheless, WWF, co-founders of RSPO, Wetlands International and Sawit Watch (Sawit is the Indonesian name for palm oil) are all RSPO members. Unilever maintains it intends to buy only certified palm oil by 2015.

Waitrose have told the Forum that they are committed to using only Certified Sustainable Palm Oil (CSPO) in their own-label products from the end of 2012. They also told us they will use "Greenpalm" (traded CSPO) as an interim measure. But as of today the demand for RSPO-certified palm oil is minuscule because of its higher price, and global competition dictates that we are not prepared to pay that little bit extra.

Habitat loss

Rainforest destruction means loss of endangered species, of which the orang-utan in Borneo is just one high profile, iconic animal amongst hundreds of thousands of others. Rainforests are also the Earth's largest carbon sink and slashing and burning releases this carbon; then the peaty soils dry out and likewise release carbon.

It takes 1 to 2 cubic metres of water to produce



Orang-utans in Borneo are losing their rainforest home to palm oil plantations.

one tonne of palm oil, which results in an organic-rich, foul-smelling effluent. A very few of the most progressive plantations produce biogas for power generation from this effluent, usually with CDM (Clean Development Mechanism) funding organised through the RSPO.

We must change

We all have a responsibility here. One in ten supermarket products contains palm oil. According to WWF half of all packaged food products in supermarkets contain palm oil. It's there in foods such as cooking oil, biscuits, crisps, margarine, ice cream, sweets and many more processed foods. It is widely used in cosmetics, personal care products, soaps, detergents and chemicals. Waitrose told us that *"palm oil continues to be important to the texture of cakes, patisserie, biscuits and sweet and savoury pastry products"*. Soaps and biscuits alone account for 25% of the palm oil that Waitrose uses. We, the public, should pay much more attention to the labelling on products before buying if we want to be part of the solution.

Please see www.panda.org/palmoilscorecard on WWF's website. It's an eye-opener and might change your buying habits. But as our contact with Waitrose has shown, the position in the UK is changing slowly for the better, in some respects at least, through peer pressure.

Now biodiesel too

Palm oil consumption is dominated by the food and personal care markets. But now added to this is the rapidly growing demand for palm oil to make biodiesel to blend into diesel for our transport needs. Incorporation of biofuels in transport fuels is required by regulation in most countries, with the objective to reduce our CO₂ emissions! This cannot make sense in the case of palm oil.

The added demand for palm oil just makes the fate of our rainforests an even greater certainty. Too little too late is rainforest destruction being factored into our exploitation of the earth's resources and our behaviours in the High Street.

Our grandchildren will rue the day we stopped caring enough.

Surrey commits to reduce carbon

At the end of April Surrey County Council launched its Carbon and Energy Policy, specifying measures to cut the council's own CO₂ emissions by 20% over the next four years. Council Leader Andrew Povey said, *"We aim to have the lowest carbon emissions of any council in the country"*.

Measures announced include new boilers and better insulation in council buildings, cutting emissions from street lighting by 20% by 2015, buying over 50% of its electricity from low carbon sources (question: will this actually result in incremental carbon reductions?) and fitting smart energy meters.

Guildford Borough Council has committed to cutting its CO₂ emissions by 34% by 2015, and is well on the way. What is needed is to cut all our emissions by 40% by 2020. Time is of the essence.

Right to privacy

Local residents helping to improve the biodiversity of Henley Wood, and preparing the way for fencing to contain cattle on the surrounding chalk grassland, unwittingly invaded a creature's privacy.

The plastic tubes used to protect young hedge saplings were being removed, using a Stanley knife to slit them. These tubes are about 80cm high and 6cm diameter. One of them was situated deep inside a hedge, and as soon as it was slit a Coal Tit flew up the tube and straight back down onto a nest with four eggs!

After a quick peek down the tube to see that it was alright, the volunteers left it in peace.



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Can Surrey grow more of its own food?

On 25th March Hugh Broom, Chairman of Surrey NFU, gave us a fascinating talk about his farm, Sondes Place Farm, which has been in his family for generations.

He traced the evolution of farming in Surrey since 1980. Dairy cattle have fallen substantially, beef and sheep numbers are higher, horticulture and pigs have seen massive declines. Barriers to growing more of our own food in Surrey include planning, regulations, legislation and the lack of a local abattoir. But the fast-growing interest in quality, local food is helping our farmers and Hugh sells directly to local pubs and restaurants. Also, the locational advantage of Surrey

is huge. He farms sheep and chickens and sells logs. He grows chicory with clover for his lambs, to avoid using soy or wheat for protein, and alfalfa, which is high in protein and fixes nitrogen but needs added phosphorous and potassium.

He is striving to be more sustainable and is interested in promoting PV, rape for biofuel, wind and anaerobic digestion. He allows several local schools to grow vegetables on the farm, which they sell at their own farmers' markets. Forum members and friends are invited to tour the farm on Thursday 24 June (see calendar on back page).

COPENHAGEN 2009

Hopes, failures and futures

by Robyn Monaghan

(UNFCCC = United Nations Framework Convention on Climate Change COP = Conference of Parties)

THE THREAT OF AN impending climate crisis has rightly dominated headlines over recent years: unabated carbon emissions, in conjunction with peak oil and ecosystem collapse, are leading us to a grim, possibly apocalyptic scenario.

But in the wake of last December's UN Climate Change Summit in Copenhagen – the 15th and latest instalment of the UNFCCC's COP process – headlines have disappeared, scepticism has exploded and we've just had a general election in which the critical state of our planet's health didn't get a mention.

What has been particularly frustrating about this collective amnesia and political/media sea-change is that, with the exception of Oxfam and WWF, those in the climate justice movement had always regarded last December's summit as being incapable of offering anything more than 'false' solutions.

The broad agreement is that the problem lies with the COP structure: the US with its swaggering ego, nation states pitted against each other just like trade negotiations in the old days of the World Trade Organisation, and the participating governments largely representing the corporate interests of their respective nations.

The solutions proposed in the run-up to December's summit – carbon trading, offsetting and reduction targets at odds with the science – galvanised the scepticism and anger that has surrounded the UNFCCC since the Kyoto protocol was adopted in 1997.

If any climate-positive opportunity was to be had in Denmark, it lay in the potential for building an internationally networked climate justice movement. The Copenhagen climate summit, and the certainty of its impotency, acted as a catalyst for the founding of Climate Justice Action (CJA). This new global network of peoples and groups committed to taking the urgent action required to avoid catastrophic climate change is the first of its kind, and has set a new precedent for movement-building in our increasingly interconnected world.

The mass civil disobedience witnessed at the summit – which climaxed in a 100,000 strong

demonstration and a 'people's assembly' – is testament to the effectiveness and potential of this new international network. This mass action, alongside the hugely successful Klimaforum (the alternative conference set up by just four paid staff and which 50,000 people attended) provided inspiration as the official process was derailed by a systematic campaign of sabotage by certain states.

The chaos which unfolded within the UN summit was aided by those nations which had initially made firm commitments, only to invalidate them with loopholes, false accounting and outsourcing. Across the board, self-interest, corporate profits and political expediency proved to be more urgent concerns than either the health of the planet or the future of human civilisation.

The secretly-recorded negotiating session between Barack Obama, Gordon Brown, Angela Merkel, Nicholas Sarkozy and Chinese and Indian diplomats which surfaced this month has shed a little light on just how unlikely an agreement, however inadequate, was going to be. Not only were the Chinese and Indian heads of state absent from a meeting held just two hours before the summit was due to close, but the lack of commitment to a deal was seemingly shared by President Obama, who can be heard telling his French counterpart: "Nicolas, we are not staying until tomorrow. I'm just letting you know. Because all of us obviously have extraordinarily important other business to attend to."

Copenhagen and its effects must force a change in how we struggle around climate change. The inadequacies of the UNFCCC process that invigorate this emerging movement have the potential to force the crisis of climate change back into the public-arena, and into a fundamental struggle over life itself.

With COP16 scheduled to be held in Mexico City in November, and with the first round of talks taking place in Bonn at the end of this May, the uncertainty of the future we face is an opportunity to be seized – for better or worse.



Guildford Environmental Forum aims to improve the environment in and around Guildford for wildlife and for people and to build a sustainable future. Forum membership costs only £5 per year or £7 for a couple, and new members are warmly welcomed. Please contact Chris Coventry on 01483 283571 or e-mail gefmembership@dsl.pipex.com



CALENDAR



All the Forum's Group meetings are open to the public

Wednesday 16 June

GEF Food for a Future Group. Adam Harrison, WWF Scotland, Senior Policy Officer Food and Agriculture.
"Orangutans and Oatcakes: WWF's Work With Global Industry Towards Sustainable Palm Oil".
1900. Council Chamber, GBC Millmead Offices. (Liquid refreshments from 1830)

Wednesday 23 June

Woking LA 21. Tim Jackson, Professor of Sustainable Development and Director of "Resolve" at the University of Surrey, and Economic Commissioner to the UK Sustainable Development Commission:
"Prosperity Without Growth". 1930. H G Wells Centre, Woking.

Thursday 24 June

GEF Biodiversity and Food Groups. Following his March talk to us, Hugh Broom, Chairman Surrey NFU, will give a **"Conducted Tour of Sondes Place Farm"**. (Directions: south off A25 just this side of Dorking opposite Sondes Place). Meet at farm by 1800. *Please tell John Bannister if you are going, to arrange car shares.*

Wednesday 30 June

GEF Energy Groups. Roland Clift, Professor Emeritus, Centre for Environmental Strategy, University of Surrey, and President of the International Society for Industrial Ecology:
"Invisible Impacts: the Environmental Effects of Everyday Purchases".
1900. Committee Room 1, GBC Millmead Offices. (Liquid refreshments from 1845)

Tuesday 6 July

GEF Biodiversity and Energy Groups. Award-winning film **"The End of the Line"**, about the state of our seas.
1900. Council Chamber, GBC Millmead Offices. (Liquid refreshments from 1830)

Monday 19 July

GEF Food and Energy Groups. Emily Lewis-Brown, Food Climate Research Network, CES, University of Surrey:
"New research by FCRN shows that food accounts for much more of our carbon emissions than we thought. So how can these be cut by 70%?"
1900. Committee Room 1, GBC Millmead Offices. (Liquid refreshments from 1830)

Wednesday 28 July

GEF Biodiversity Group. David Gardner, Chair of the Surrey and South West London Branch of Butterfly Conservation: **"Moths and Climate Change"**.
1900. Council Chamber, GBC Millmead Offices. (Liquid refreshments from 1845)

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