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Local events and activities

Hedges, hedge-laying and biodiversity

The photo shows the hedge that we have laid along the southern border of the Blewbury allotments. Laying the hedge has had a transformative effect on the allotment plots alongside the hedge, allowing much more light in, and probably adding up to a metre of extra useable ground. We would welcome suggestions for further hedges to be laid.



We had alerted people to the possibility that we may soon bring in a trained hedge layer to give our volunteers a day of training from an expert. COVID-19 put an end to those hopes but we have received a grant from Transition Networks to cover the costs and we hope to arrange this for early October when the hedge-laying season resumes. There is a possibility that we could fit it in before the end of March but that seems unlikely with current restrictions.

John Ogden

Watlington Climate Action Group has made a very interesting, non-technical, informative video about hedges, hedgerows, hedge laying and why they are important for improving biodiversity. View the video at: tinyurl.com/wwzvy4y7.

There is much activity these days about planting more trees to fight against climate change, but the humble hedgerow can be overlooked. In the UK we have lost approximately half our hedgerows over the past 50 years, but even so it is estimated that over 500,000 km of them remain. Collectively, that is Britain's single largest nature reserve. Protecting and enhancing them is a hugely valuable contribution towards carbon reduction and improved biodiversity. For a fascinating article about how hedges both store carbon and are havens of biodiversity go to tinyurl.com/14lq3avc.



Jolyon Kay 1930–2021

by Hugh Osborn

As chairman of Blewbury Village Society, Hugh set up the BVS Environment Group (now Sustainable Blewbury) and with the late John Richards established the Blewbury Energy Initiative (BEI). Hugh is an Emeritus member of Sustainable Blewbury

Peter Saunders shared his memories of Jolyon Kay and his involvement in starting the Blewbury Players in the 1970s in a Blewbury Bulletin Stop Press and in the March 2021 Blewbury Bulletin, but Jolyon was involved in many Blewbury activities as well as theatre.

The Kays (Jolyon, his wife Shirley and their four children) first moved to Blewbury in 1958, but Jolyon's career in the Foreign Office meant that they were often away from Blewbury for years at a time, and they lived in five different houses in Blewbury after their first arrival in Blewbury. They were in their home in Cyprus when Shirley died last November, and Jolyon returned to Blewbury to live in St. Michaels in Church Road, until he passed away in late January.

Hugh writes:

We first met at Frensham Heights where their daughter Katty and our daughter Katherine were at school. We all met again soon after our coming to live in Blewbury in 1986 and I became involved in Blewbury Village Society (BVS) matters. When setting up the BVS Environment Group (BVSEG) in 1993, Jolyon was very keen to help, especially with recreation facilities, and thanks to his initiative we established the Ticker's Folly Field Trust, which acquired this much-needed extension for the recreation ground. He was actively involved in the Sports Council-supported Recreation Ground Enhancement Project. He also had an interest in groundwater levels [of great interest to the Environment Group at the time] not least because of problems at their house on the London Road where water was found flowing under the dining table at dinner one night when we were there!* Shirley was interested in all we were doing and was especially helpful with editing Peter Cockrell's drafts of the book *A View from the Hill* – I have fond memories of her happily humming away in her kitchen/diner while I was checking technical details on the drafts in 2006.

* Hugh has been providing information for the Environment Agency on the weekly level of water in his well since 1989.

Blewbury's own snowdrop

Snowdrops are everywhere in the village this year. We have lived in Blewbury for over 40 years, but I had never heard of a Blewbury Tart Snowdrop until I was reading a feature in the January RHS magazine about a nursery called Avon Bulbs, which specialises particularly in snowdrops. There were lots of pictures of snowdrops, and one of them was described as *Galanthus nivalis f. plenifloris* "Blewbury Tart", found by Alan in 1975 in an Oxfordshire village.



Then I read that Alan is the head nurseryman at Avon Bulbs, in Somerset (avonbulbs.co.uk), and his full name is Alan Street. Street is one of the old Blewbury village names. So this became really interesting. There is more about Alan and his snowdrops in the RHS magazine article, and he was also the subject of a 30-minute BBC Radio 4 Open Country episode, called "Snowdrop Country". You can listen to him talking on BBC Sound. Search for Open Country Snowdrop Country, or go to bbc.in/3dEh2Bp.



Alan joined Avon Bulbs when it started in 1979, four years after he found the snowdrop that he was to call Blewbury Tart in St Michael's churchyard in 1975. He was still at school, and when he asked the Rector, Hugh Pickles, if he could have a clump of the bulbs, the reply was "of course". The process of creating more bulbs from the original one is called twin-scaling: the original bulb is cut into many tiny pieces, which are then kept carefully for a year, by which time they have grown into identical bulbs that can be sold. Most new varieties of snowdrop are found in people's gardens or woodlands, named by their finder, then twin-scaled to produce more. Alan described the Blewbury Tart as a "short snowdrop with green frilly flowers that face upwards". He still has family living in Blewbury, and every time he comes back he plants snow drops in the centre of the village, in the churchyard, the Playclose and Grahame Close and along footpaths. Once I started looking I found masses of different ones.



Wide-leaved and narrow-leaved snowdrops

Snowdrops have always been important to people – they are the first flower to appear – a harbinger of better things to come. In the past people planted snowdrops along the road outside their houses, because they shone in the dark and showed where their house was. They also planted them to show the way to the privy after dark! Candlemas is on February 2nd, when churches were traditionally decorated with masses of snowdrops. The Victorians saw the snowdrop as a symbol of hope, which is why they have been so appreciated this year.

Jo Lakeland

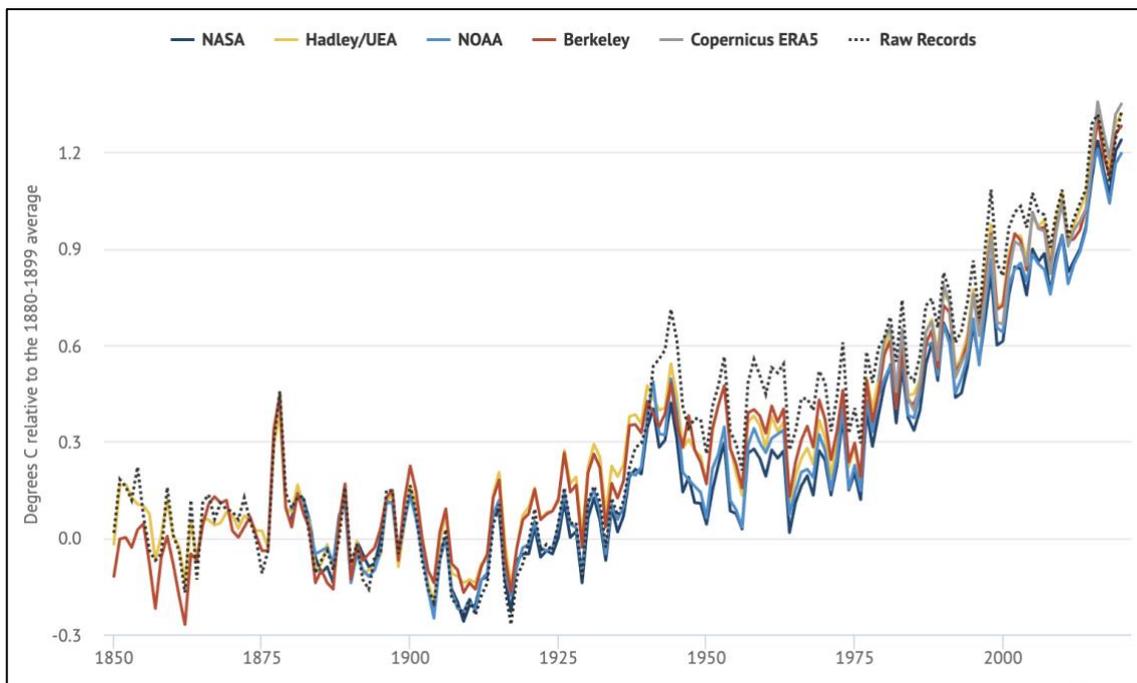
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Short articles and interesting links

2020 may have been hottest year ever recorded

Climate change of course has not gone away. The pandemic-disrupted year 2020 was one of the hottest ever recorded, though some of the calculations conclude that it was not the hottest but equal first or second hottest. But in 2020, carbon emissions were only slightly lower than usual, and it takes several years for the full, cumulative effects of previous greenhouse gas emissions to work through the atmosphere, forests and oceans. Global average temperatures in 2020 were between 1.2°C and 1.3°C warmer than temperatures in the late 19th century, as shown in the graph below.

Here are some links for more information: record year – (NASA: [tinyurl.com/1szybf46](https://www.nasa.gov/1szybf46)); tied with 2016 – (BBC: [tinyurl.com/1gnm5lzy](https://www.bbc.com/1gnm5lzy), Carbon Brief: [tinyurl.com/to4bruvc](https://www.carbonbrief.org/to4bruvc), EU Copernicus: [tinyurl.com/4oag6u3v](https://www.copernicus.eu/4oag6u3v)); second hottest year – (NOAA: [tinyurl.com/3gx6xcu5](https://www.noaa.gov/3gx6xcu5), UK Met Office: [tinyurl.com/a2c5iy3r](https://www.metoffice.gov.uk/a2c5iy3r)). Note that nine out of 10 of the hottest years ever recorded have been in this century (the tenth was 1998).



The Earth’s oceans are warmer than ever recorded. See [tinyurl.com/yr75akha](https://www.nasa.gov/yr75akha). And everyone will remember 2020 for huge wildfires in Australia, Siberia and California, many severe storms and other extreme weather such as crazily high temperatures up to 38°C in Arctic Siberia and unprecedented warm weather elsewhere in the Arctic. See [tinyurl.com/35txoog8](https://www.nasa.gov/35txoog8) and [tinyurl.com/1ek1a7x2](https://www.nasa.gov/1ek1a7x2).

Eric Eisenhandler

Green Homes Grant scheme collapses

At present there is a debate going on about future zero-carbon space heating of buildings in the UK. The two main options are to use modified boilers burning a mixture of hydrogen and biogas supplied by the existing gas grid, or to use electric heat pumps. In the end both methods will probably be used but the big question is: which will dominate? The government’s 10-point green action plan has mentioned both: installing up to 600,000 heat pumps per year and building a model hydrogen-based village.

The UK has Europe’s largest number of old, poorly insulated houses and buildings. Either heating option demands that the energy efficiency of virtually all buildings must be upgraded to use as little energy for heating as possible, and heat pumps (which are quite expensive) in particular only work efficiently in buildings that are very well insulated and have bigger radiators than usual. Adequately insulating millions of buildings will be a huge, expensive programme requiring some help from the government.



Old terraced houses, typical of UK towns and cities

Previous programmes: The Green Deal and other support for domestic renewables

The main programme of financial aid to improve housing for the future was supposed to be the 2010–16 coalition government’s flagship **Green Deal**, which started in January 2013. Based on loans (at relatively high interest) tied to the property and paid back via electricity bills, the Green Deal was widely regarded as being over-complex and misconceived. Take-up was abysmal, and it was closed to new applicants in July 2015. For several years no replacement for the Green Deal appeared.

Starting in 2010 the **Feed-in Tariff** mainly aided solar photovoltaic (PV) panel (i.e. electricity generating) installations, both on houses and on the ground in solar farms. The initial payments were probably too generous, and many households installed panels, including a discount scheme in Blewbury arranged by Sustainable Blewbury, but the tariffs were rapidly reduced (often at very short notice) and the scheme was ended for new entrants in 2019. Many small, local firms that specialised in solar panels that had started up at the beginning of the scheme were forced out of business as the much lower tariffs greatly reduced take-up of the scheme.

The **Renewable Heat Incentive** for industrial installations began in 2011, and for domestic customers finally began in 2014. It is still running, and it provides support for solar thermal (hot water) panels, ground- and air-source heat pumps, and biomass (e.g. wood-pellet) boilers.

Under the coalition government, from 2016 all new houses were supposed to be built to zero-carbon standards. However, that requirement was dropped in 2015, which means that the owners of houses bought new today, in 2021, will soon face large bills (up to £20,000?) for upgrading them. If gas boilers become illegal from 2025 (a frequently mentioned proposal, see [tinyurl.com/19v6bgzv](https://www.tinyurl.com/19v6bgzv)) then most houses will need to upgrade their heating systems. Read more in an article at [tinyurl.com/2q5782by](https://www.tinyurl.com/2q5782by).

The Green Homes Grant scheme (GHG)

In October 2020, the government introduced a fairly modest scheme for England. It was originally funded with £2B (billion) of which £0.5 B is earmarked for local authorities to cut their carbon footprints. It was initially to run until March 2021, but has now been extended to March 2022. The official government information about Green Homes Grants can be found at [gov.uk/search/all?keywords=green+homes&order=relevance](https://www.gov.uk/search/all?keywords=green+homes&order=relevance) but there is a more readable account at homebuilding.co.uk/advice/green-homes-grant-what-is-it, which mentions some of the problems discussed below. Note that unlike the earlier, failed Green Deal, this scheme offers subsidies not loans, which is already a big improvement. One target is to install up to 600,000 heat pumps per year.

The Green Homes Grants cover up to two-thirds of the cost of a lot of fairly basic energy efficiency improvements: not just insulation, but also aim to help with heat-pump installations. The homeowner must pay at least one-third of the cost of what is done. The maximum grant of £5,000 (£10,000 for people on certain low-income support benefits) is quite modest; for example, it would not be enough to fully insulate an older house with solid walls.

Successful applicants are given vouchers to pay registered contractors for the work being done.



Preparation for a ground-source heat pump

Contractor problems

The first sign of problems was a report that many local contractors, who must be registered to and accredited by the scheme, found the registration process very time consuming and expensive for the amount of work they might expect to get. This meant that the first homeowners to be given grants found it very difficult to find nearby local contractors to do the work. There is more on this at [tinyurl.com/y7l97bf4](https://www.tinyurl.com/y7l97bf4).

Management and payment problems

Contractors given vouchers covering work they have already done have encountered long delays in being paid and some have given up altogether on the scheme. See [tinyurl.com/1ljl71](https://www.tinyurl.com/1ljl71) and [tinyurl.com/gtrde2sn](https://www.tinyurl.com/gtrde2sn).

One problem seems to be due the company chosen to run the scheme. They are an American firm called ICF: see [icf.com](https://www.icf.com) or [tinyurl.com/td5lvszc](https://www.tinyurl.com/td5lvszc). Details of the government's contract with them have not been made public, and on Christmas Eve 2020 at 9.35pm (possibly due to the 5-hour UK/US time difference) an email was sent from the company to thousands of people applying for the grants,

saying they were unable to verify their identity, and claiming that the quote for their work was too high, despite the installers providing estimates within the accepted range of the industry body the MCS.

Less than 25% of grant applications have been approved and as of February only 20,000 vouchers had been issued. It is not clear why these numbers are so low.

Removal of funding

On 10 February the government removed most of the £1.5 B allocated to the scheme for grants, because only £71 M of the £1.5 B (4.7%) had been spent, and for the financial year from April 2021 to April 2022 only £320 M will be made available. You can read more about this at tinyurl.com/2rydkk9n and at tinyurl.com/299999q9.



Air-source heat pump in Arctic Norway

The future?

The scheme seems to have almost taken off. New data released last week showed that more than 103,000 homeowners made applications under the scheme, but only one in five had received vouchers, and only 2,777 home improvements had been fitted. See tinyurl.com/4enpb9gl.

When asked why the scheme was considered to have failed, Boris Johnson blamed “low take-up” without making any attempt to explain any of the problems and possible causes mentioned above. It is not at all clear what is planned to replace or repair this scheme.

Cosy Homes Oxfordshire

Do not confuse the GHG with **Cosy Homes Oxfordshire** (cosyhomesoxfordshire.org) which offers assessments to help you decide which green measures would most benefit your home’s comfort, carbon footprint and bills. My colleague Jo has had one of their assessments and found it both very competently done and good value. (There will be more about this from Jo in our next newsletter.)

Scams

Beware, these are becoming more sophisticated and more difficult to identify. Those of us who are at home most of the time, and especially if we are older and in many cases struggling with technology, receive a lot of cold phone calls offering mysterious ‘green’ grants from vaguely specified companies and government agencies under the auspices of unspecified non-existent grant schemes. Our general advice is **never to buy anything originating from a cold call or someone knocking on your door** – if it sounds too good to be true it probably is. Use local firms who can point you to local people who have used them and have had good experiences. Ask cold callers for specific information and try to verify it. Last week, for example, a phone caller told me that his wonderful offer was related to the Green Deal; he hung up when I pointed out that the Green Deal ended in 2015. Another caller said her company was based in London; she hung up when I asked for its address.

Eric Eisenhandler

The Economics of Biodiversity: the Dasgupta review and the UN Report on Nature

On 2 February, the UK Treasury published an important review, pointing out that nature is a huge blind spot in our economic considerations. The review, “The Economics of Biodiversity”, by Professor Sir Partha Dasgupta of Cambridge University, strongly advocates making biodiversity and nature an essential part of our economics, and replacing the usual economic measure, GDP, with measures that take account of damaging biodiversity loss. In a way it is a logical follow-up to “The Economics of Climate Change” by Nicholas Stern (now Lord Stern) in 2006 (tinyurl.com/yn9emvqq), a hugely influential report that said strong and early action against climate change as soon as possible was urgently needed and the benefits would far outweigh the economic costs of not acting early.

Perhaps the most striking thing about this new report is that it comes from the UK Treasury rather than from the government's Environment Department or from BEIS, which deals with energy and climate change. This transforms biodiversity loss from an environmental issue into an economic issue.

Lord Stern, now a professor at the London School of Economics, said: "The Dasgupta review shows we are running down our natural capital fast, and we will pay the price. Reversing these trends requires action now, and as the review stresses, to do so would be significantly less costly than delay. Crucially, it would [also] help us to reduce poverty."

Jennifer Morris, head of the Nature Conservancy, said: "In the same way that the Stern review proved transformational in raising awareness of climate risk for business and financial markets, the Dasgupta review is likely to represent a watershed moment for how we value the contributions made by nature across nearly every aspect of our lives."

For background, there is a Guardian article at [tinyurl.com/yk7h2fj8](https://www.tinyurl.com/yk7h2fj8). To see the full report, or summaries of its conclusions, go direct to the UK Treasury website: [tinyurl.com/3n6oxre2](https://www.tinyurl.com/3n6oxre2). You can download the full report (606 pages) and summaries at [tinyurl.com/5hbpplsg](https://www.tinyurl.com/5hbpplsg). If you are very short of time, the brief summary of headline messages linked on that page is a good place to start.

Related to the Dasgupta review, on 18 February the United Nations Environment Programme (UNEP) released a report discussing how three issues: climate change, biodiversity loss and pollution can be tackled jointly within the framework of Sustainable Development Goals. The report is entitled "Making Peace with Nature. You can download the report and summaries of its messages from here: [unep.org/resources/making-peace-nature](https://www.unep.org/resources/making-peace-nature).

The UN secretary-general, António Guterres, has said: "Humanity is waging a senseless and suicidal" war on nature that is causing human suffering and enormous economic losses while accelerating the destruction of life on Earth."

The report says that carbon emissions need to be taxed, and trillions of dollars of "perverse" subsidies for fossil fuels and destructive farming must be diverted to green energy and food production. As well as systemic changes, people in rich nations can act too, it says, by cutting meat consumption and wasting less energy and water.

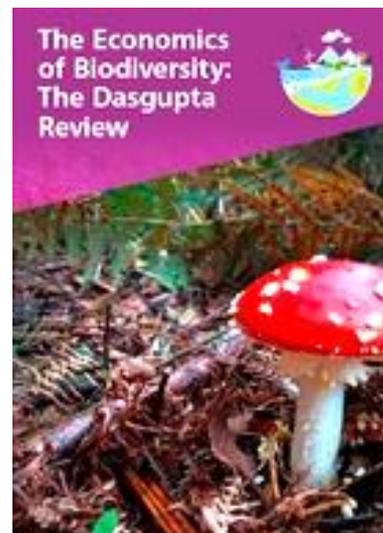
Prof Sir Robert Watson, who has led UN scientific assessments on climate and biodiversity and is a lead author of the report, said: "We have got a triple emergency and these three issues are all interrelated and have to be dealt with together. They're no longer just environmental issues – they are economic issues, development issues, security issues, social, moral and ethical issues. Of all the things we have to do, we have to really rethink our economic and financial systems. Fundamentally, GDP doesn't take nature into account. We need to get rid of these perverse subsidies, they are \$5 to \$7 trillion a year. If you could move some of these towards low-carbon technology and investing in nature, then the money is there."

Pollution was included in the report because despite improvements in some wealthy nations, toxic air, water, soils and workplaces cause at least 9 million deaths a year, one in six of all deaths.

Eric Eisenhandler

Particulate pollution from log burners

It is only in the last few years that the full effects of air pollution on health have begun to be understood. Small particles of so-called PM2.5, meaning particulate matter with particle sizes of less than 2.5 microns (a micron is one-thousandth of a millimetre) had various sources in the past. When a lot of homes, power stations and trains burned coal the resulting soot made the air filthy, but the



Clean Air Act of 1956, principally in response to London's Great Smog of 1952, mandated the use of smokeless fuel in towns and cities and ended killer smogs. A more recent big source of soot in the air was diesel cars, vans, lorries and trains but in the past decade the use of particulate filters for diesel exhausts has made a big improvement. Job done? Not yet!

A recent government-sponsored report ([tinyurl.com/1sa9r6ih](https://www.gov.uk/government/statistics)) finds, rather surprisingly, that wood burning at home is now the UK's biggest source of particulate air pollution, producing up to three times as much air pollution as road traffic (which contributes dust from tyres and brakes as well as exhaust). But wood-burning pollution seems to be caused by just 8% of the population, and a lot of the wood burning is done in urban areas primarily for aesthetic reasons rather than heating. The new [government statistics](#) show that domestic wood burning in both closed stoves and open fires was responsible for 38% of our PM2.5 pollution in 2019, the latest year for which data is available. The report said PM2.5 emissions from this source had more than doubled since 2003, to 41,000 tonnes a year. Road traffic is said to have caused only 12% of PM2.5 pollution in 2019.

To counter this, from 1 May 2021 all logs on sale must be properly dried not wet, and sales of bags of house coal will not be allowed.

Scientists have warned that wood burners can triple the level of harmful pollution particles inside homes and should be sold with a health warning. In January, experts at Asthma UK and the British Lung Foundation asked people to use wood burners only if they had no alternative source of heat. Prof Jonathan Grigg, of Queen Mary, University of London, said: "It is difficult to justify their use in any urban area." Open fires are worst, but log-burning stoves pollute when their doors are open for adding logs.

A second report, produced by Kantar for the government, examined who was burning solid fuels at home and why, and included a survey of 46,000 people. It found that just 8% of people in the UK burned fuel indoors, with two-thirds of them living in urban areas where levels of dirty air were worst. They are responsible for about 40% of PM2.5 pollution. Two-thirds of the people burning indoors used a stove, while a third had open fires, and 96% had alternative sources of heating such as gas or electricity. Most of the indoor burners used seasoned wood but 20% were using wet wood. The most common reasons given for using their indoor burning appliance were to create a homely feel. Gary Fuller of Imperial College London, a member of the government's air quality expert group, said "wood burning in homes has crept up under the radar while we all focused our attention on diesel traffic." Scientists also advise that they should not be used around elderly people or children.



Eric Eisenhandler

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Councils will be critical in the fight against climate change: Upcoming council elections offer a chance to bolster our council and 'spring back better' in a fairer, greener, healthier way
by Ellie Vincent

Hello! My name is Ellie, I live in Grahame Close and have lived in Blewbury all my life. I am currently studying a law conversion course at Oxford Brookes University. I first got involved with climate change activism after volunteering in a refugee camp talking to people seeking asylum from Syria and Sudan who told me about the droughts and extreme weather they had suffered, which have increased in intensity due to climate change. I completed my undergraduate degree at Durham last year, where I was involved in a campaign to stop the County Council building a major road project through green-belt land and calling for investment in public transport instead and was also involved in a campaign against Banks Mining to stop the expansion of an open-cast coal mine 😊

[Local authorities will be essential](#) in delivering climate action and a green recovery from coronavirus, as identified by a preeminent coalition of experts including The Association of Directors of Environment, Economy, Planning and Transport (ADEPT), Friends of the Earth, and the Grantham Institute at Imperial College.

However, local authorities have been critically underfunded; they have experienced a 38% decrease in the money they receive from central government since 2010 and on average local authority budgets have shrunk by 26%. ([Institute for Fiscal Studies](#)). The council elections offer us the chance to spotlight how important local action can be for a green recovery. Through voter engagement we can bolster local authorities in their calls for greater empowerment from central government and give our councillors a democratic mandate to pursue a greener, fairer future.

Oxfordshire County Council do have a Climate Action Plan but a vital part of its strategy, as explained by Planning and Place director Susan Halliwell, is to engage and mobilise the local community.

Thus, the local elections coming up in May 2021 offer us the opportunity to prioritise this issue and implement the ‘unprecedented’ and ‘transformative’ action that the UN Intergovernmental Panel on Climate Change has told us is required, and support the council by showing this is a priority issue. This in turn can help the local councils in their dialogue with national government.



COVID-19 has been devastating and it has revealed how dangerously unequal the UK is: as attested by the far higher fatality rates for Black, Asian and other ethnic minority people, for people living in socioeconomically deprived areas, and people with disabilities. COVID-19 has also offered a chance for reflection, for coming together and realising what is important: social connection; how interdependent we all are; how significant maintaining mental and physical health is and the importance of nature and fresh air, quite literally being able to breathe. Collective action, responsive and proactive governments, and listening to scientific advice has proved the most effective approach to keeping people safe, especially when you compare different countries’ success. This makes me cautiously hopeful that we will learn these lessons and apply them to tackling that other public health emergency, the ecological and climate crisis. We have an opportunity to mobilise and push for a positive recovery when it comes to the May 2021 local elections.

Oxfordshire County Council and our Vale of White Horse District Council have drawn up an ambitious Climate Action plan and Friends of the Earth notes that they have made more progress addressing climate change than other local councils. However, Friends of the Earth assesses “The Vale of White Horse area needs to do much more if climate catastrophe is to be averted, particularly on home insulation and tree cover”.

In the Vale, 25% of emissions come from housing, 49% from transport, and 26% from industrial and commercial activity.

Only 51% of homes are reasonably well insulated in the Vale of White Horse (in that they have an Energy Performance Certificate rating of A, B or C). This represents a shocking and avoidable waste of energy, high greenhouse gas emissions and high energy bills. Seven per cent of households in our area are in fuel poverty, meaning people in these homes can’t afford to heat their homes sufficiently. Thus, a clear priority for local government is upgrading insulation and expanding and accelerating retrofitting: this will provide skilled jobs, significantly reduce emissions and benefit residents’ essential comfort. Friends of the Earth estimates that the council needs to upgrade the insulation of about 2,900 homes per year in Vale of White Horse in order to ensure all homes are properly insulated by 2030. The County Council note in their Climate Action Plan that retrofitting is a crucial goal in their OP2050 spatial strategy, so we as voters should ask our candidates about it and demonstrate that it is a top priority. If the County Council receives a strong democratic mandate from us as voters and residents, that we support and back expanding the policy of local authority-led retrofitting, councillors will be emboldened to rise to this task and it will be reflected in their agendas, budgets and co-operation with district councils and central government.

Friends of the Earth recommends that all local authority areas should aim to double tree cover. In rural areas like ours this may involve farmers planting new woodlands. Obviously, local climate action groups are enthusiastically leading the way in this. Increasing the number of trees in our area would capture more carbon dioxide, boost biodiversity, and mean that more town dwellers can access nature and green spaces, something which has been proven to have significant positive effects for physical and mental health.

These are just two policies: expanding retro-fitting and tree cover amongst a plethora of necessary measures which our local authorities could and need to enact on a more ambitious and expansive scale than they have done so far. Estimates suggest that only 30% of people vote in local elections. If we could mobilise more people to vote and express that climate action is a top priority this would drive and encourage the local authorities to fulfil their role. Friends of the Earth are calling for climate action groups to mobilise their communities, question their electoral candidates and ensure climate action is embedded in the local political agenda for years to come.

The council elections are a prime opportunity to get ambitious policies which prioritise pursuing a green recovery and promoting policies of fairness and economic justice at the very top of the agenda. Local climate action groups, including Blewbury Climate Action, could mobilise and try to get climate pledges from all candidates and to host 'Climate Action hustings' where candidates would have to discuss their vision, and proposed policies and commitment for a green, equitable recovery.

Key Sources:

- tinyurl.com/zfju4xp6
- tinyurl.com/yf4banam

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Why 2021 could be the most important year ever!

by Jo Lakeland

The basis for this article is three speakers in two webinars I recently attended. All the material in this article comes from notes I took as I watched and listened to them, and you will see from the brief descriptions that they are all eminent in their fields. Some of the material will be new to you and may shock or worry you, but it is included because I agree with what all three said, that we need to act very soon to protect our planet.

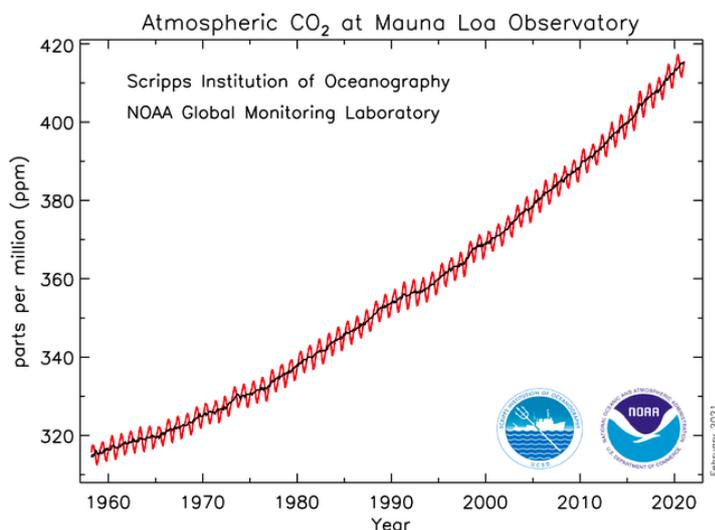
The first webinar was at the end of January: Protecting our Perfect Planet, with Dr. Keith Scholey, Director of Silverback films and producer of the Netflix series Our Planet, and director of David Attenborough's A Life on Our Planet and also A Perfect Planet (both with the BBC). Dr Scholey did a PhD in zoology before becoming a wildlife film producer at the BBC, and later ran their Natural History unit. He talked about how the forces of nature drive, shape and support Earth's great diversity of wildlife and nature; a delicate equilibrium that is vital to our existence, and about how new pandemics, agricultural failure and climate change are all symptoms of the world losing its balance. He said that we need to take action now to reset it.

Protecting our Perfect Planet



Many scientists believe that we are in danger of entering an 'extinction event', only the sixth in the 4.5 billion year history of Earth. Our previously stable planet has become unstable because of what humankind has done to it. The biggest extinction event was at the end of the Permian era, 252 million years ago. As the continents crashed together to form the super-continent Pangea there was massive volcanic activity which produced enormous amounts of CO₂ for hundreds of thousands of years, resulting in runaway global warming and 96% of life became extinct. We are now mimicking this.

The most famous extinction event was at the end of the Cretaceous era, 66 million years ago. This was when a massive meteorite crashed into the Gulf of Mexico. It caused massive earthquakes and enormous quantities of rock were thrown into orbit then falling back as a blizzard of meteorites. The molten rock set the entire world on fire and 75% of the world's species were wiped out, including the dinosaurs. Complete instability in just one day, *but there was less life lost than when the massive amount of CO₂ ended the Permian era.* We have now increased the amount of CO₂ in the atmosphere from approximately 315 parts per million (ppm) in 1960 to about 413 ppm now, in just 60 years, which on a geological timescale is *equivalent to one day.* (In the pre-industrial times the CO₂ level was only 280 ppm.)



The Holocene era began 13,000 years ago, the end of the most recent ice age, with a global stabilisation of temperature (the average varying by only plus or minus 1°C) which by 10,000 years ago had allowed humans to stop being hunter-gatherers and become farmers. *Farmers still rely on a predictable variation of the seasons.*

But this was the beginning of the big changes we have made to the planet's surface, with an acceleration from James Watt's invention of the fossil fuel-burning steam engine in the 18th century. We have managed to change much of the world's surface in the last 50 years. We have cut down four trillion trees and built 56,000 major dams. Humanity and the domestic animals they eat make up 96% of all mammals, so all other mammals, the wild ones from mice to whales, are only 4% of the total, and 70% of birds are now domesticised (they are mainly chickens). Only one in ten of the large fish that existed 50 years ago exist today, and we have killed 10 million sharks every year for the last 10 years! That's not a stable situation. When global temperatures had risen by more than 1°C in this century, scientists suggested that we had left the Holocene and entered a new geological era called the Anthropocene, the age of man.

We can all see how our weather is changing. In the UK – in 2020 we had the wettest February ever and the driest May. Many more hurricanes in the Caribbean. Massive bush and forest fires, in California and Australia coupled with droughts, causing agriculture to collapse. Sea levels are rising everywhere, not least due to water in the oceans expanding due to the rise in average temperature.

And we are witnessing or approaching what are called tipping points: sudden events that accelerate through positive feedback (the event itself provides the acceleration). For example, the Greenland melt is accelerating, because as the glaciers melt they expose dark rocks which absorb more heat from the sun, accelerating the melting of the ice. The peat under the Siberian tundra is burning, melting the permafrost and releasing methane (a much more potent greenhouse gas than CO₂). At the same time, we are cutting down and burning the Amazon Rainforest. Up to now it has created its own continental weather system known as the "river in the sky". This irrigates more than half the continent's agricultural land. But deforestation is pushing the rainforest to a tipping point where it can no longer produce enough rain to irrigate itself, and it could turn into a dry savannah grassland.

We have to stop all this NOW, which means that we cannot just stop adding more CO₂ to the atmosphere, we also have to remove it. Carbon capture technologies *are* being developed, but slowly.

However, Dr Scholey suggested that a more straightforward and obvious way is to use nature. Rewild the planet: massive tree planting, reinvigorate grassland, and restore our biggest CO₂ sump (the deep oceans) by no longer pouring in pollutants and by creating reserves where no fishing is permitted. And for stable environment we need to re-establish ecosystems. Reintroduce or preserve the top of the food chains (beavers, wolves, wild boars, tigers, whales, sharks) which will stabilise the ecosystems.

The COVID-19 pandemic has shown us that we can adapt, we can work together, and if we can beat the pandemic, we can also adapt sufficiently to limit climate change. We cannot afford to eat as much meat or dairy. In the wild one large predator needs 100 prey animals every year to survive, which is unsustainable for billions of humans.

Dr. Scholey concluded by suggesting that 2021 could be **the most important year in history for humanity**: the UN Conference on Biodiversity (COP15) takes place in Kunming, China on 17–30 May, and the UN Climate Change Conference (COP26) will take place in Glasgow on 1–12 November. They *must* be successful.



If you want to read more: Dr Scholey's lecture was the 2021 Andrew Reed Online Lecture at Reeds School, and it was suggested that for anyone who wanted to read more, he had written a long article in their annual Alumni magazine which is a downloadable pdf at <http://bit.ly/3bAVTVR> (pages 24–34)



UN CLIMATE CHANGE CONFERENCE UK 2020

IN PARTNERSHIP WITH ITALY

That was the first webinar I attended. The second was a Methodist webinar: The Climate Emergency, COP26 and Fossil Fuel Divestment on 17th February. Dr. Scholey's lecture was an excellent introduction to why CO₂ is so important, the effects of climate change on nature, and how we must reinstate the biodiversity we have destroyed, but it lacks hope. After watching the Methodist webinar, I became hopeful that we can find our way through this climate disaster. Bill McKibben, the founder of 350.org, was the keynote speaker, and the second speaker was Mark Campanale, Founder of Carbon Tracker, talking about "The Risk of Fossil Fuel Investments"

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The Webinar was recorded and put onto YouTube for everyone to access, and if you would rather watch it than read the rest of this article, go to: bit.ly/37H1EQM. The first 45 minutes are the most interesting.

*

Bill McKibben

wrote his first book about climate change in 1989. Its title was *The End of Nature*, which was not particularly hopeful, but he has hope now. He founded the climate action organisation 350.org in 2007. Its stated aim is to "end the use of fossil fuels and transition to renewable energy by building a global, grassroots movement."

He talked about the power of divesting from fossil fuels – not just switching our home's energy suppliers to a green company or taking out the solid fuel fire, but finding out if our pension provider or bank has investments in fossil fuel companies. He considers divestment to be one of the most important and powerful ways of fighting climate change. And it is working. He said that Exxon was the biggest company in the world 10 years ago. Today it is not even in the top 10.



The fossil fuel industry's biggest problem now is divestment. It is reducing their power. And people are becoming more aware of their machinations. Several years ago one of the biggest fossil fuel companies advertised that they were investing money in renewables research. They were: 3% for renewables, leaving 97% for looking for promising new sources of oil and gas. People are not so likely

to fall for that now. Half of the UK's universities have divested, as has the queen. Last week Bill Gates announced that he was divesting his Foundation and personal investments. The Norwegian Sovereign Wealth Fund (the largest pool of capital on Earth) has divested. Total divestment is now measured in many trillions of dollars.

We should be more aware of how climate change is disproportionately hard on those who cannot afford it. The biggest hurricane to hit the USA was Katrina, which reduced its GDP by 1%. The biggest hurricanes to hit Honduras in the same year reduced that country's GDP by 40%. Bill said he was encouraged by the way attitudes have been changed by the COVID-19 pandemic. There is a renewed ethic of solidarity and less of the Thatcher-era desire for maximum profit/lowest cost.

He was asked how he held on to hope for the future. He said because he watched how movements are growing. When [350.org](https://www.350.org) started in 2009 they did hold demonstrations all over the world, but with only about 50 people at each one, but Fridays for the Future demonstrations might have 500,000 people at each one. There is still a need to petition governments or to demonstrate to block pipelines, but divestment is more powerful. He finished by stressing that COP26 is the most important meeting of governments since COP21, and above all that this will be a crucial decade – we have wasted 30 years because of the fossil fuel companies' campaigns of disinformation.

If like me you want to find out if your bank, your personal investments or your pension fund include investment in fossil fuels, I was recommended to look into [Share Action](https://www.shareaction.org). It will not tell you if your investments are fossil fuel-free, but Share Action can give you the tools to find out.

They build Responsible investment networks

"We build and support networks of foundations, faith groups, unions and NGOs to take action in the investment system. We bring together pension savers to get their voices heard."

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Mark Campanale – The financial risk of carbon fuel investments

I will only give a flavour of his presentation – there was a lot of information on his PowerPoint slides so I do recommend watching his presentation online in the YouTube video of the webinar. bit.ly/37H1EQM. There is more information about Mark and about [Carbon Tracker](https://www.carbontracker.com) on their website.

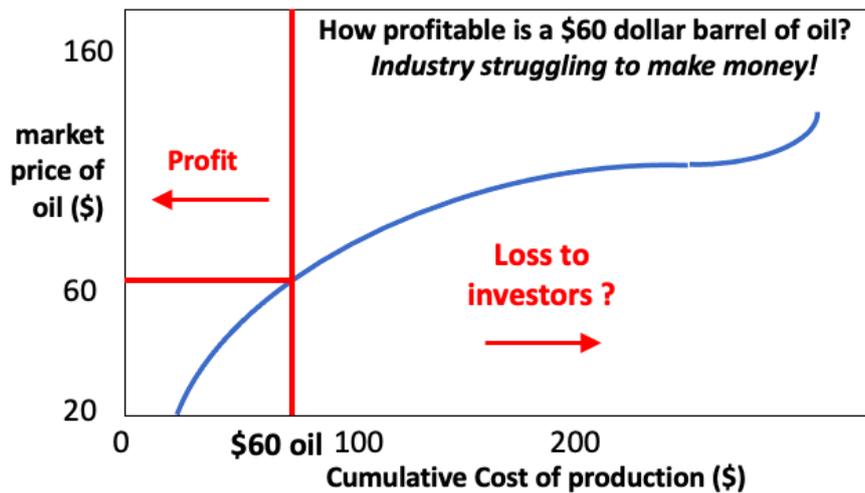
The basis of his presentation was this: if we keep fossil fuels in the ground, companies will have unbankable carbon stranded assets. Not only can they not sell their oil or gas, they will also have power stations, mines, refineries, tankers, etc. that must be left behind in our transition to a fossil fuel-less future. They will also need expensive decommissioning.

The likely scenarios as the world moves to zero fossil fuels are:

Scenario:	Temperature rise limited to	50% reduction in emissions by:	Zero emissions by:
Likely:	2.0°C	2038	2085
Medium possibility:	1.5°C	2032	2050

If the companies have unbankable carbon stranded assets, it will cost them more to produce oil, coal or gas, so their share dividends will drop, leading to very unhappy shareholders. The least productive companies will be in trouble first: tar-sands producers, the shale oil producers, the deepest oil rigs, those with the oil fields that are running out or who are situated in distant places,

At the moment the price of oil is at about \$60 per barrel, so if it costs your company less than \$60 to produce you will still be profitable, but if it costs more than \$60 per barrel you will run at a loss and your investors will lose money, unless you borrow expensive money from a bank to pay dividends as normal. And some big companies have already done that. See the graph on the next page



This graph is drawn from a copy of the screen, because it had been written on.

Source: Goldman Sachs Global Investment Research

This graph is a reminder that people are still able to take action on things that really matter to them. And divesting from fossil fuels is easy even in a lockdown. We cannot

march, but we can switch our savings to an ethical bank if we have access to the internet and a laptop or even a smart phone. There is a profound reason for divestment: fossil fuel companies are under siege from two directions: giant movements pointing out that their product is destroying creation and engineers are designing solar and wind generators that now deliver more product (energy) more cheaply.

Renewable energy costs keep falling!

Technology	Solar PV module prices \$/W	Onshore wind turbine prices euro/W	Lithium-ion battery prices \$/kWh
Year 2008	4.5	1.3	1180
Year 2013	0.8	0.84	650
Year 2018	0.3	0.82	250
Total drop since 2008	-94%	-37 %	- 85%

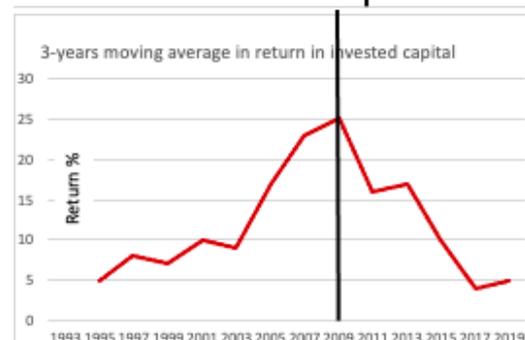
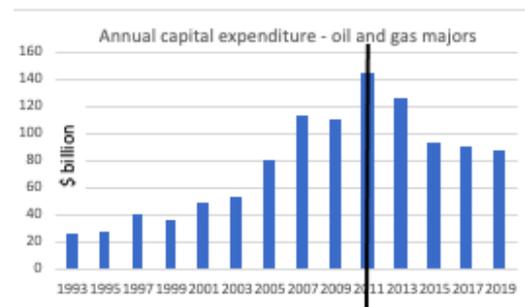
(Numbers are from Bloomberg new energy finance)

Renewables are undermining the fossil fuel industry. For every doubling of production by solar and wind the price has been dropping by 20%. And for the first time we do not need to burn fuel to move from A to B or to heat our homes. We can move in electric cars and we can be heating our homes by heat pump with the electricity produced by solar, wind, or even by hydrogen.

Mark went on to say quite a lot about electric cars: Lithium-ion batteries are becoming much cheaper, the range is increasing and there are more charging points. We have a charging pod with electricity and gas supplies from the same provider and this package means that our electricity is about 3p cheaper per kWh. A market prediction is that by 2022 the battery cost will have fallen to \$100/kWh and by 2030 it will be \$50/kWh, which is fortunate because by then fossil fuel cars may no longer be available (or legal)!

Oil and gas are investing more but making less

A graph to illustrate this is to the right. (It is for one particular fossil fuel company, but the trend of the graphs applies to all the big players). The top graph shows that the maximum expensive investments made to find and get more fossil fuels was in 2011 and after that the annual capital expenditure declined. The lower graph is carefully lined up with the upper graph. It is interesting that it shows



that the maximum % return on invested capital came in 2009, two years *before* the maximum investments, and then the return declined rapidly. More people were investing less so the return collapsed and producers had to borrow from the banks to pay dividends. Peaks in investments often happen when new technology produces incremental growth. By the time of peak investments the investors were receiving lower % returns, so they withdrew investments and the % returns fell, and so on. Another example of positive feedback. *The numbers are from Bloomberg new energy finance.*

It is predicted that renewable energy will provide 50% of the global energy demand by 2050.

Memorable quotations from fossil fuel companies:

Oil companies planned to spend an average of 3% of capital expenditure on low carbon projects in 2019.

Plans to increase oil and gas production “We will also sell more gas ...” (*Shell website: what is Shell’s net carbon footprint ambition?*).

Messages from Faith leaders:

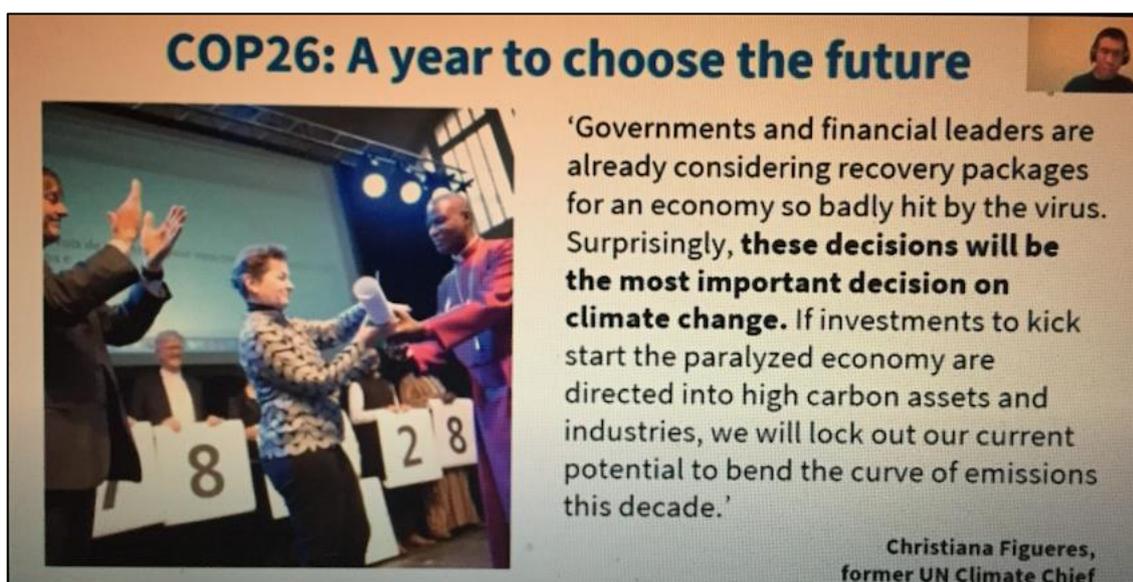
“Even more worrying is the continued search for new fossil fuel reserves, whereas the Paris Agreement clearly urged keeping most fossil fuels underground ... Civilisation requires energy, but energy use must not destroy civilisation!”

Pope Francis to oil company executives in the Vatican, 9 June 2018

“Divestment will send a positive and hopeful message to those vulnerable communities across the globe who will be most immediately affected by climate-related disasters.”

Dr Rowan Williams, former Archbishop of Canterbury and Chair of Christian Aid

And finally, a message from Christina Figueres, former UN Climate Chief:



COP26: A year to choose the future

‘Governments and financial leaders are already considering recovery packages for an economy so badly hit by the virus. Surprisingly, **these decisions will be the most important decision on climate change.** If investments to kick start the paralyzed economy are directed into high carbon assets and industries, we will lock out our current potential to bend the curve of emissions this decade.’

Christiana Figueres,
former UN Climate Chief

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The Sustainable Blewbury newsletter is produced and edited by Jo Lakeland and Eric Eisenhandler
We would be delighted to be able to include more articles written by YOU for this newsletter.

In more normal times we have a wide-ranging programme of activities in and around the village. Participating is fun and can make a positive contribution to village life and the local environment.

If you’d like to get involved, or to receive this free bimonthly Newsletter, email us at info@sustainable-blewbury.org.uk or phone John at 01235 850372 or Jo at 01235 850490.