

16 02 2019

Hi

Thanks to everyone who has booked on the Redland series of talks. If you find you can't make it, please do cancel your ticket as there are limited places. Many thanks. **If you still want to book, the links are at the bottom of this email.**

And here's some news. Apologies - much of it is dismal - and a **big emphasis on land use**, given the recent reports on how much damage we are doing to our biosphere. But there's much we can do and I hope you find it interesting and useful.

1. **We are destroying our life support systems...**
2. **Australian government holds a climate crisis meeting**
3. **Food shortages in Turkey following tornadoes - this is what climate change looks like**
4. India and China are 'greening' the world - **reforestation works**
5. **We vote on our land-use three times a day...** plus some other suggestions for saving our biosphere
6. The decision to stop fracking may be reversed... **Please sign.**
7. What a difference a few **LEDs** can make...
8. **Big wind can fill our nuclear gap**
9. Frequent fliers are **most** concerned about climate change!

1. **'We are destroying our life support systems.'** With all we know about climate change, it's still shocking to hear that extreme temperatures are silently killing the creatures that we depend upon for our food production and waste disposal. A recent study shows a catastrophic **98% drop** in insects in Puerto Rico, and this is largely put down to climate change. When the insects go, so do the birds, so does....everything.

It's not just the tropics. **Parts of Germany are experiencing a 75% drop - over just 25 years.** The UK is described as one of the **most nature-depleted countries with a 56% decline in species 1970-2013.** For us it seems that **climate change is not the primary cause of this collapse.** It's our **pesticide use** that is the main problem. It's our demand for cheap food, produced on industrial scale, often low in nutrients - but blemish free and all identical..

Although the **UK organic market** increased about 5% last year, it remains tiny compared to most other European countries. Somehow we are not valuing our own health, or the health of the planet, when we make our food choices - and we don't always think things through... In 'Veganuary', there was a **marked increase in demand for fresh produce.** But two of the products most in demand were **cucumbers and berries - in January!** They will have been **flown in and most will have been sprayed repeatedly**

with pesticides, fungicides and fertilisers. We need a much more thought-through approach to decarbonising our food and saving the world's insects. **What's wrong with local, organic winter veg in winter?**



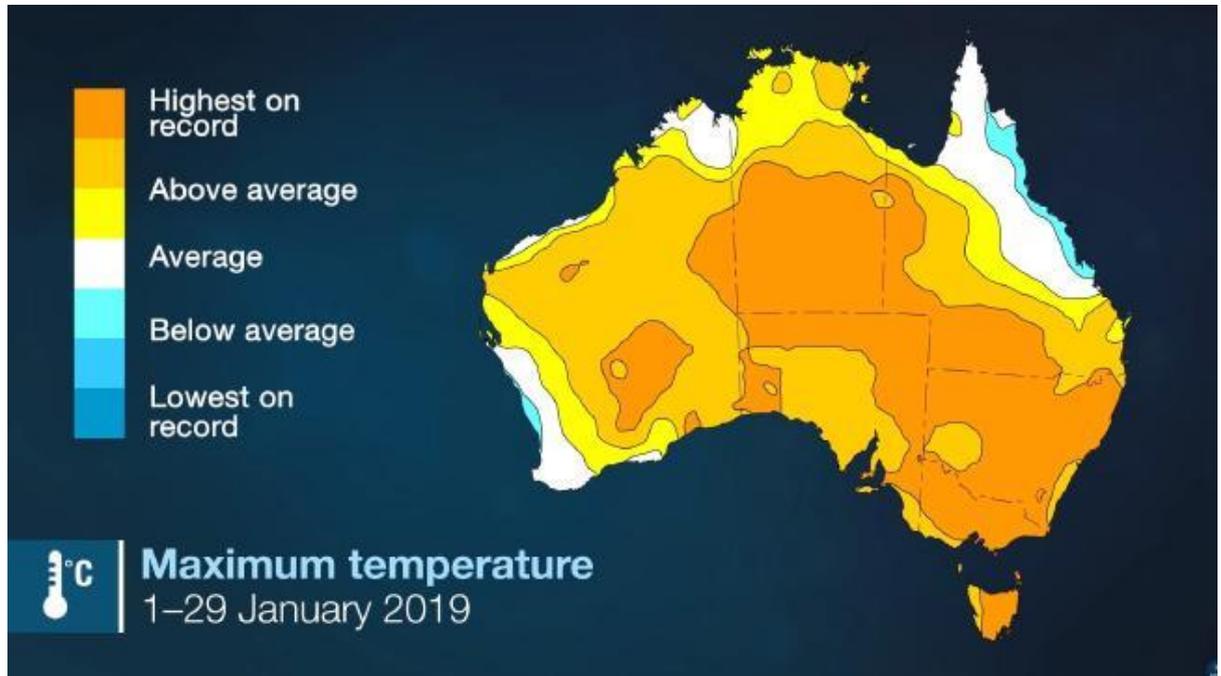
Bristol Students' Strike

2. I was down in central Bristol yesterday, to support the students' strike. Wonderful, scary - but **so were the temperatures. It felt more like May....** We've escaped extreme cold this winter so far, but parts of the US have been down to **minus 45** degrees, while much of **Australia has been scorching at +50....** Tasmania and New Zealand are on fire while Townsville is flooded. A million fish have died in New South Wales as rivers have run dry. [Here's a really disturbing fly over](#) some of their cattle pasture. It's utterly shocking.

Last week, the Trumpier than Trump Prime Minister **Stuart Morrison finally called an emergency meeting** - but he **still won't discuss climate change....!** It's not the time for 'engaging in policy debates' - apparently. Meanwhile his party funders have proposed another two coal fired power stations, [one of which has just been shot down by the](#)

courts... With all that sun and wind, it's incredible that the country is **only at 20% renewables**, but the extraordinary thing is that in the face of a completely climate sceptic government, the current rate of increase in renewables could bring them to **50% by 2024 and 100% by 2032**. It seems the **population and business leaders get it** - even if their government doesn't... Australia is about to become the **world leader in domestic batteries**.

3.

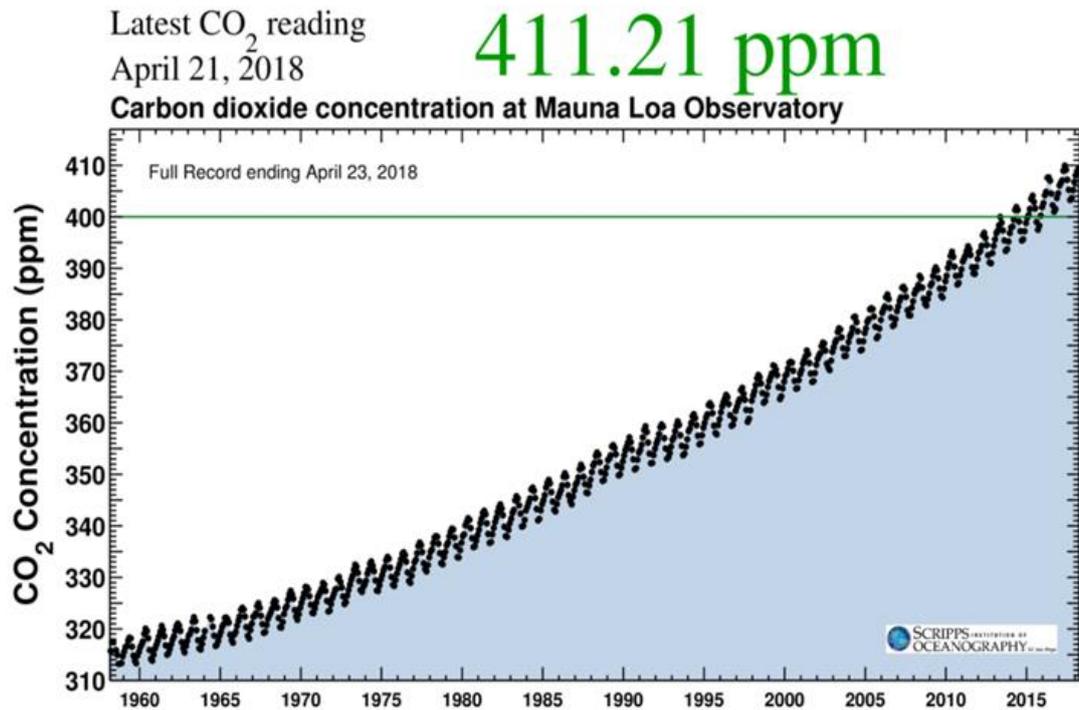


Perhaps the scarier news for us in Europe is that, following **multiple tornadoes in January**, **Turkey is now experiencing food shortages - to the point that the government is setting up vegetable stalls in Istanbul and Ankara**. Antalya, one of their main food growing areas, was badly hit - and now **food inflation is at 31%**. Much of their food is still being exported to us, of course. Global food shortages in 2007/8 led to the Arab Spring and then the Syrian war... **It is hard not to see this as another early sign of the chaos that climate change will bring.**

4. There is a hint of good news on the land-use front from recent NASA observations of the world's green cover. It appears that together, **India and China have increased green cover by roughly the whole area of the Amazon** since the mid 1990s. They have been engaging in massive reforestation projects, (**1.5 million volunteers recently planted another 60 million trees** in less than 12 hours in Madhya Pradesh, and just last year **China mobilised its army** to plant an area the size of Wales).

This hasn't compensated for our loss of rainforest, but it **does show that human intervention in the landscape can really achieve results**. Increased greening is useful because plants absorb CO2 as

they grow (you can see the 'spring inhalation' on the Keeling Curve below, the **annual dip** as growth starts in the Northern Hemisphere). **Forestry and extensive grassland is what we need to sequester carbon and store it...** The report is generally good news but it's worth noting that some of this greening is from an extension of intensive farming, using chemicals and irrigation - and that's likely to have caused carbon loss from soil and its own carbon emissions. As ever, it's complex - but we know trees and grassland work...



5. .

But how can we, as individuals, help protect our biodiversity and return carbon to our soil and vegetation where it's needed? One thought is to buy a few acres of land, to plant trees and create a nature reserve - maybe for family camping? I'm told there are Inheritance Tax advantages in passing money on this way - as well as creating a great family project. While doing the talks, I've met several individuals who have done this and I know they'd be willing to talk to others who need advice. Avon, and most counties in the UK, are severely deforested, and **more tree planting - however small - could positively affect our flood risk.** Just an idea for those with spare cash....

Buying land may be too ambitious for most of us, but with so much alarming news on our insect loss, there are things we can do. One is to **eat more organic food**. At the end of last year the government's Chief Medical Officer urged us all to buy more organic to stave off an antibiotics crisis: now our scientists are telling us to do the same simply to preserve our

[insects.](#)

Another thing we can do is **plant native wildflowers**. Many of our [insects rely on specific plants](#) - so showy flowers that attract bees are not enough - we need to provide the plants that are essential for our butterflies and moths. [Feed Bristol](#) has a great selection of peat-free wildflowers and you can buy as presents using [Avon Wildlife Trust gifts](#). A new [report shows that gardens and allotments are a better wildlife resource](#) even than urban nature reserves.

One last suggestion: you can just use [Ecosia as your search engine](#). They plant trees in areas where they are most needed - and have now reached 50 million...



plant trees...

50,192,121

Trees planted by Ecosia users

6. **Is fracking over in the UK?** Cuadrilla has said it can't operate, given our strict limits on seismic activity that can be set off when drilling - and so far, the government has held firm. But according to Channel 4 News, [government ministers 'gave the green light' to 48 scientists](#) who had a letter printed in the Times, saying current standards are too strict. Channel 4 News last night revealed how many of those scientists have links to the oil and gas industry... Clearly, the fight is not yet over... Here's one last [petition...](#)

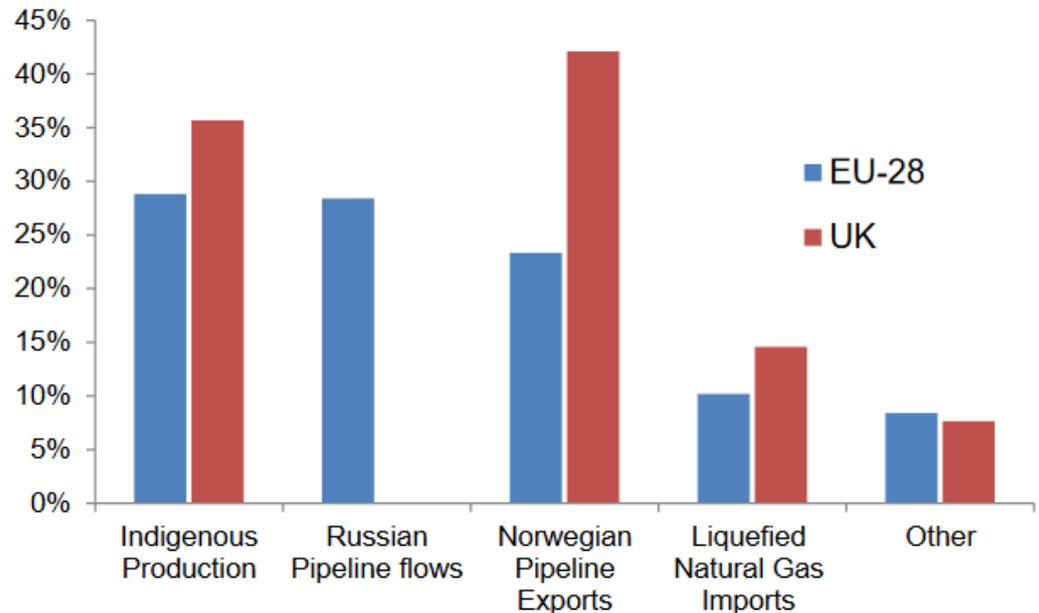
It's worth noting that **Russia and the US are both fighting to supply gas to Europe** - plus [Eastern Mediterranean gas](#) reserves are still to be developed, a [pipeline is being built across Turkey](#) to bring Caucasus gas and [Centrica \(British Gas\)](#) has just signed a deal to develop massive off-shore gas reserves in Mozambique. **Europe is not short of gas options and in the UK we are**

still supplied mainly from the North Sea, our side and Norway's.

Although we are all focussed on Brexit, it's worth noting that **gas is at the centre of some big struggles in Europe.** Germany has said 'yes' to Nord Stream 2, a direct link from Russia that will **not bring 'new gas'** but will by-pass Ukraine, the usual transit route. Much of Europe is criticising this as an economically unnecessary project - it's about Germany keeping good relations with Russia. The US is the most vocal critic and has threatened sanctions - so Germany has also agreed to two liquefied natural gas (LNG) import terminals, to match the new gas export facilities planned for the Gulf of Mexico. There may be a lot of US shale gas coming into Europe in a few years time.... To be consistent, we need **to cut our gas use - for heating and for electricity.**



Chart 1: Sources of all EU-28 and UK gas, 2016



7. One small but surprisingly effective way to start this is to **switch to LEDs**. I was at a conference last week where SSE were represented. They were asked about energy efficiency measures and the spokesman commented on a project they have run in the Solent Valley, where they achieved, apparently, an **astonishing 7% drop in peak consumption** through lighting changes alone. It seems to me that there are many 'easy wins' out there, still to be had....
8. It seems that plans for new nuclear at **Wylfa and Moorside are dead - but as with fracking, not so fast!** The good news is that Greg Clark, Industry Secretary, agrees we have good electricity capacity and even nuclear advocates such as Dieter Helm have now joined the National Infrastructure Committee in agreeing there are compelling reasons to focus on renewables instead. But the industry is fighting back and I'm sure it's worth [signing just one more petition...](#)

Meanwhile we are coping well with the [loss of two reactors at Hunterston and at Dungeness](#) - Hunterston may never come back on line as [100 of its graphite control barrels have been found to have 'keyway' cracking from top to bottom.](#) The good news is that the enormous Hornsea One off-shore wind farm is underway, and its developers, Orsted, are [confident they can fill the UK's nuclear gap.](#) To understand the extraordinary size of some of our wind turbines (and to see some incredible driving!) here's a [great, fun](#)

[youtube...](#)

Of course, there's still the **chance that Hinkley C will be cancelled**.... Part of the original deal was that our Treasury would provide 'loan guarantees' to enable EDF to raise the money for construction - but as this [excellent blog](#) explains, **they can be cancelled if Hinkley's Big Brother, Flamanville, has not performed well by 2020**. Flamanville was supposed to be online by 2012 but is still nowhere near finished. **Will our government cancel the deal, or more likely, will they dig into our pockets to provide construction finance?**

9. Bizarrely and worryingly, it seems that **frequent fliers are the most 'concerned' about climate change - but the least willing to change their behaviour**. Chris Goodall's latest [Carbon Commentary](#) highlighted this depressing research. It's worth looking at the [actual research](#) to see how this breaks down in terms of voting habits, age and gender.

Unbelievably, international flights have only *started to monitor their emissions from this year*. Plans to actually [cut emissions are yet to be decided](#) and discussions are behind closed doors. If aviation was a country, it would be the **sixth biggest emitter and that's increasing** - despite more efficient aircraft Bristol's Green Party are encouraging everyone to write to the **Ontario Teachers' pension scheme which is funding Bristol Airport's expansion** - please email me for more info.

Some dates for your diary.

- [Radiation Free Lakeland](#) are planning a 'Surround Springfields' in Cumbria on **April 27th**;
- [Extinction Rebellion](#) is planning a week of action beginning **15th April**;
- Bristol will be holding a new version of 'Green Doors', now called '**FutureProof**', on **Saturday May 11th** - a chance to learn from others on retrofitting;
- [Bristol Green Capital Partnership](#) are holding an event looking at Bristol's 2030 carbon neutrality target - **5th March, 9am-12.30**;
- [Kings Weston Action Group](#) need more volunteers for their coming work days, helping preserve ancient forest;
- Bristol Credit Union has teamed up with Bristol Energy Coop to provide [solar loans to commercial premises](#) - contact them if you know of suitable roofs

Many thanks. **As ever, if you want to come off the mailing list, just let me know.**

All good wishes.

Nikki

REDLAND DATES

Where Are We on Climate Change - 5th March, 7.30pm

<https://www.eventbrite.com/e/where-are-we-with-climate-change-tickets-56208475062>

UK Energy, Emissions and Targets - 12th March, 7.30pm

<https://www.eventbrite.com/e/uk-energy-emissions-and-targets-tickets-56209483077>

Is Nuclear the Answer?

<https://www.eventbrite.com/e/is-nuclear-the-answer-tickets-56209928409>

Land Use and Climate Change

<https://www.eventbrite.com/e/land-use-and-climate-change-tickets-56210396810>

The Way Forward

<https://www.eventbrite.com/e/the-way-forward-tickets-56210857187>

Discussion: Does individual or local action on climate change matter?

<https://www.eventbrite.com/e/discussion-does-individual-or-local-action-on-climate-change-matter-tickets-56211593389>