

the sector are blind to the business risks posed by water pollution across their whole value chain, and are therefore not acting with the urgency required. A new report, *Interwoven risks, untapped opportunities* from investor-backed environmental disclosure platform CDP, reveals the tangible business case for immediate action – to recover better from COVID-19 and build a resilient and sustainable fashion industry.

<https://www.cdp.net/en/research/global-reports/interwoven-risks-untapped-opportunities>

If you would like to receive the prayer diary each month by email (free), please email:

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Picture on front cover: taken by Emma King, 2006

Website links accessed 23/9/20.

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## Prayer guide for the care of creation



# October 2020

**“Now I know that the LORD saves his anointed; he answers him from his holy heaven with the saving power of his right hand.**

**Some trust in chariots and some in horses, but we trust in the name of the LORD our God.**

**They are brought to their knees and fall, but we rise up and stand firm.”**

**(Psalm 20:6-8)**

### Thursday 1<sup>st</sup> October

Plant protein foods—like lentils, beans, and nuts—can provide vital nutrients using a small fraction of the land required to produce meat and dairy. By shifting to these foods, much of the remaining land could support ecosystems that absorb CO<sub>2</sub>, according to a new study appearing in the journal *Nature Sustainability*. In their study, the researchers analysed and mapped areas where extensive production of animal-sourced food, which requires 83% of Earth's agricultural land, suppresses native vegetation, including forests. The study highlights places where changing what people grow and eat could free up space for ecosystems to regrow, offsetting our CO<sub>2</sub> emissions in the process.

<https://phys.org/news/2020-09-offset-years-climate-warming-emissions-analysis.html>

### Friday 2<sup>nd</sup> October

Airbus has offered a glimpse of a potential zero emissions future for flight, revealing concept designs for three hydrogen-powered aircraft which it claims could enter service within just 15 years. All three concepts rely on hydrogen as a primary power source in some form, with the aerospace giant touting the fuel ... as a climate-friendly solution for transforming the aviation sector. The largest 'turbofan' model

designed is capable of carrying up to 200 passengers with a range of 2,000 nautical miles, and would be powered by a modified gas-turbine engine running on hydrogen rather than jet fuel, the company said. It is envisaged the liquid hydrogen fuel would be stored and distributed via tanks located behind the rear pressure bulkhead. Also unveiled [in September], a smaller propeller plane and a third "blended-wing body" design

<https://www.businessgreen.com/news/4020494/airbus-unveils-futuristic-designs-zero-emission-hydrogen-planes>

### Saturday 3<sup>rd</sup> October

Each year, Arctic sea ice goes through a seasonal cycle, growing in area and thickness through the cooler winter months before shrinking back again as temperatures rise in the spring and summer. The point at the end of summer when sea ice reaches its lowest level for the year – typically in September – is known as the “sea ice summer minimum”. This year, the Arctic has reached its second lowest summer minimum on record, according to provisional data from the National Snow and Ice Data Center (NSIDC), which is based at the University of Colorado Boulder. On 15 September, Arctic sea ice extent fell to 3.74m square kilometres (km<sup>2</sup>) – just 350,000 km<sup>2</sup> larger than the record low in 2012.

archipelago and aims to curb reliance on food imports in the world's fourth most populous country.... The estate will allocate 148,000 hectares to rice and 622,000 hectares of non-irrigated land for crops like maize. Green groups have ... criticised the latest plan and warned of the risk that dried out peatland could trigger devastating forest fires.

<https://news.trust.org/item/20200923053205-ut5ij/>

### Thursday 29<sup>th</sup> October

Latin America is more than twice as rich in plant species as tropical Africa and is home to a third of the world's biodiversity, a new paper published today in *Science Advances* confirms. While it has long been understood that Latin America is richer in plant species than tropical Africa, the paper quantifies that difference for the first time by providing a precise number of vascular plant species in the Afrotropical Region and Latin America. With tropical forests being removed at alarming rates, and likely to nearly disappear by the end of the century, this information can help focus conservation efforts in areas with the greatest biodiversity while there is still time to do so.

<https://phys.org/news/2020-09-latin-america-rich-species-tropical.html>

### Friday 30<sup>th</sup> October

One of Earth's most biodiverse habitats lies off the Scottish west coast – but climate change could wipe it out. Maerl beds stud the ocean floor like underwater brambles. They're pastel pink and, despite their knobbly appearance, made up of a red seaweed. Like tropical coral reefs, the seaweeds in maerl beds interlock as they grow, creating nooks and crannies that serve as the perfect home for a huge range of sealife. Maerl grows at a glacial pace – just 0.2 mm per year in Scotland. This makes it difficult for these habitats to respond to rapid changes in water temperature or ocean currents. But these are just the kind of environmental changes that are expected around Scotland over the coming century. If global emissions stick to their current trajectory, [researchers at Heriott-Watt University] predict a massive 84% decline in maerl bed distribution

<https://theconversation.com/one-of-earths-most-biodiverse-habitats-lies-off-the-scottish-west-coast-but-climate-change-could-wipe-it-out-144832>

### Saturday 31<sup>st</sup> October

The apparel and textiles sector has a vital role to play in reducing water pollution at the scale and pace urgently needed. However, many companies in

answers and already creating ripples of change. All the talks, workshops and panels will be online.

<https://www.ethicalconsumerweek.com/>

### **Sunday 25<sup>th</sup> October**

Lord Jesus, you have called us to be your witnesses on earth. Help us to proclaim, by word and deed, the message of your love to all humankind, and to declare your lordship over creation and our responsibility as your stewards.

### **Monday 26<sup>th</sup> October**

The world's largest mining company BHP has betrayed international efforts to reform the mining sectors' ongoing potential to cause catastrophic impacts though the failure of tailings dams. Operations at the Olympic Dam copper-uranium mine in South Australia show BHP has failed to learn key lesson's regarding transparency, accountability and corporate responsibility following its complicity in the November 2015 disaster at the BHP and Vale joint venture Samarco iron ore mine in Brazil. Samarco was a corporate mining disaster which caused the loss of 19 lives and catastrophic environmental impacts with permanent pollution of native people's land and rivers. Brazilian prosecutors say the company failed to take actions that could have prevented the disaster.

<https://theecologist.org/2020/sep/15/bhp-betrays-international-safety-efforts>

### **Tuesday 27<sup>th</sup> October**

Twelve cities from across the globe, representing over 36 million city residents, pledged to divest from fossil fuel companies and advocate for greater sustainable investment, as part of their commitment to accelerating a green and just recovery from COVID-19. C40's declaration, "Divesting from Fossil Fuels, Investing in a Sustainable Future," brings together mayors of some of the world's most influential cities, led by Mayor of London, Sadiq Khan, and Mayor of New York City, Bill de Blasio, stating that: "Now is the time to divest from fossil fuel companies and undertake investment and policy change that prioritises public and planetary health, building back a more equal society and addressing this climate emergency." The declaration champions fossil fuel-free, green finance as a key strategy for rebuilding equitable, sustainable urban economies and increasing resilience against future crises.

[https://www.c40.org/press\\_releases/cities-commit-divest-invest](https://www.c40.org/press_releases/cities-commit-divest-invest)

### **Wednesday 28<sup>th</sup> October**

Indonesia has started developing a food estate to grow rice, corn and other crops that should eventually span the

<https://www.carbonbrief.org/arctic-sea-ice-shrinks-to-second-lowest-summer-minimum-on-record>

### **Sunday 4<sup>th</sup> October**

Protect us, O Lord, from thoughts without action,

Guard us, O Lord, from words without feelings,

Defend us, O Lord, from ideas without results,

And surround us with your presence.

(David Adam)

### **Monday 5<sup>th</sup> October**

The UN has revealed that 14 of the 20 goals set in 2010 to halt the accelerating decline of nature have not been met and is urging governments, businesses and individuals to accelerate habitat and biodiversity restoration. According to the body's fifth *Global Biodiversity Outlook* report, just 2% of the world's terrestrial habitat which is degraded and would benefit from restoration is currently receiving such attention. This is in spite of the fact that more than one million species are classified as 'at risk' of extinction, and that the risks of nature loss to society, the economy and efforts to halt climate change have been quantified. The report outlines, in detail, eight major transitions away from "business-as-usual" models which the UN believes must be made if the world is to align

with its forthcoming 'Paris-style' agreement on preventing Earth's sixth mass extinction.

<https://www.edie.net/news/7/UN---Business-as-usual--must-be-transformed-to-prevent-collapse-of-nature/>

### **Tuesday 6<sup>th</sup> October**

While the overall picture presented in the UN's *Global Biodiversity Outlook* report is negative and disheartening, the document does highlight several success stories to have materialised in the past decade. Around 43% of the world's key biodiversity areas are now included in protected areas, up from 29% in 2000, the report reveals. The UN's agreement on nature, in its current form, would see nations agree to protect at least 30% of all areas. Moreover, annual deforestation rates were one-third lower between 2015 and 2020 than between 2000 and 2010; up to 48 species of mammals and birds have been saved from extinction since 1993 and 1.4 billion species are now listed through the Global Biodiversity Information Facility (GBIF) – seven times more species than were listed in 2010. Full report and details are on this link:

<https://www.cbd.int/gbo/>

### Wednesday 7<sup>th</sup> October

Tonight at 7pm is a Green Christian workshop, *Sitting among the ashes*. As someone who has long lived with some degree of eco anxiety and climate grief, Andii Bowsher (lead chaplain at Northumbria University) is concerned that we learn together to handle them as well as can be and to support one another in it. As Christians, liturgy and ritual have a part to play in this for ourselves and shared with others, this is a discussion on their role, and how they can help. Booking needed.

<https://greenchristian.org.uk/green-christian-workshops/>

### Thursday 8<sup>th</sup> October

The number of Indo-Pacific humpback dolphins seen around Hong Kong has jumped as the pause in high-speed ferry traffic due to the coronavirus allows the threatened species to make something of a comeback, scientists said. Marine scientist Lindsay Porter of the University of St. Andrews said the mammals - also known as Chinese white dolphins and pink dolphins - were moving back into parts of the Pearl River Delta that they typically avoided due to the ferries that connect Hong Kong and Macau. Dolphin numbers in the area had jumped by up to 30% since March when the ferry traffic was suspended, allowing scientists a rare opportunity to study how underwater noise affected their

behaviour, she said. Scientists think there are about 2,000 dolphins in the entire Pearl River estuary.

<https://www.reuters.com/article/health-coronavirus-hongkong-dolphins/rare-dolphins-return-to-hong-kong-as-coronavirus-halts-ferry-traffic-idUSL4N2GB0BF>

### Friday 9<sup>th</sup> October

A warming climate threatens crop diversity; the 'Seeds for Needs' approach combines farmers' knowledge of resilient crops with 'elite' varieties identified by scientists. In a review paper published in *Frontiers in Plant Science*, scientists urge the importance of combining the knowledge harbored by farmers of diverse crop varieties - which is often overlooked by scientists - with high-tech breeding done in laboratories. Authors argue that farmers' knowledge and high-tech breeding to improve crops can be effectively combined to unlock more resilient and nutritious food supplies in the face of climate threats. They say that involving farmers in crop improvement enhances the chance that new varieties will be adopted, making crop improvement more efficient.

[https://www.eurekalert.org/pub\\_release/s/2020-09/icft-fki092120.php](https://www.eurekalert.org/pub_release/s/2020-09/icft-fki092120.php)

(OGTC), with support from exploration and production firm Chrysaor and the Scottish Government.

<https://www.businessgreen.com/news/4020228/report-uk-invest-net-zero-north-sea>

### Wednesday 21<sup>st</sup> October

Tonight is the next Green Christian workshop *Green Discipleship: Knowing your carbon footprint and doing something about it* with Adrian Frost of Climate Stewards. This session is focused on the tools to help people and organisations to understand their impact on climate and how to take action as a result. Adrian Frost works for Climate Stewards, one of the UK's leading Christian climate charities, helping people to actively reduce their carbon footprints, then offsetting the rest through carbon offsetting and international development. Adrian developed Climate Stewards' carbon footprint calculator for individuals, and a newly released collaborative platform for churches. Register for free at: <https://greenchristian.org.uk/green-christian-workshops/>

### Thursday 22<sup>nd</sup> October

Zimbabwe has banned exploratory coal mining operations and many small gold mining contracts in all 11 national parks, heralding a massive victory for Zimbabwean wildlife. This is a reverse

from an earlier decision to allow two firms belonging to Zimbabwe's Chinese allies to drill and survey for coal in the world-renowned Hwange National Park, home to more than 40,000 elephants and a population of endangered black rhino, as well as leopard and painted dog conservation programs.

<https://www.goodnewsnetwork.org/zimbabwe-bans-coal-mining-in-hwanche/>

### Friday 23<sup>rd</sup> October

This weekend is Green Christian's Festival: Re-imagining the promised land, with our AGM on Friday evening. This free festival includes discussions and workshops on a variety of topics, including politics, creativity and imagination, land use, activism, and spirituality, as well as opportunity to hear new Christian music and to join together in worship.

<https://greenchristian.org.uk/green-christian-festival-2020-programme/>

### Saturday 24<sup>th</sup> October

Ethical Consumer Week starts today. It will explore the role of consumers, businesses, and NGOs in building more resilient communities in the face of Covid-19 and the ecological crisis. The week will explore the underlying issues, a radically reimagined future and the actions that we can all take to support just transitions. Participants will gain inspiration from those exploring the

plain backward. Such progress follows the iron logic of maximising benefits while minimising costs. All productive forces have been harnessed to draw from the Earth all that it can provide. A systematic assault has been mounted on its wealth in the soil, the subsoil, the air, the sea and the outer atmosphere. War has been waged on all fronts. Victims have been produced on an unprecedented scale: the working class oppressed world-wide, peripheral nations exploited, the overall quality of life in decline and nature plundered.” (Leonardo Boff)  
Father, forgive us and show us a better way.

### **Monday 19<sup>th</sup> October**

The world's largest emitting country, China, has pledged to carbon neutrality by 2060, in a surprising yet welcome move that will boost global negotiations on climate action ahead of next year's COP26 summit. China's President Xi Jinping announced late on Tuesday 22<sup>nd</sup> September that the country would aim to reach peak emissions before 2030, which would be followed by a long-term target to become carbon neutral by 2060. As the world's largest emitter, China is accountable for around 28% of global emissions. However, up until this point, the nation had yet to commit to a long-term emissions goal. Under the Paris Agreement, China had

pledged to cut the carbon intensity of its economy by 60-65% against a 2005 baseline.

<https://www.edie.net/news/9/China-s-carbon-neutral-target-for-2060--What-does-it-mean-for-global-climate-action/>

### **Tuesday 20<sup>th</sup> October**

A new era of net zero energy production has the potential to transform the North Sea into one of the world's leading clean technology hubs, according to a major new report from the Oil and Gas Technology Centre (OGTC). The wide-ranging plans hail the potential for the basin to become a test bed for next generation offshore wind turbines boasting larger blades and taller towers, saltwater electrolysis plants capable of slashing the cost of green hydrogen production, and the development of advance catalyst materials for the manufacture of hydrogen fuel cells. The electrification of oil and gas platforms, methane leak detection and flaring mitigation, meanwhile, could help to limit the climate impact of fossil fuel production and provide a show case for how the fossil fuel industry can support the transition towards net zero emissions. The sweeping plans are outlined in *Closing the Gap: Technology for a Net Zero North Sea*, a report by global energy and infrastructure consultancy Wood Mackenzie on behalf of the Oil and Gas Technology Centre

### **Saturday 10<sup>th</sup> October**

New York Climate Week kicked off [in late September] with confirmation the number of corporates and governments pledging to deliver net zero emissions by 2050 at the latest has more than doubled in the past year. According to a new report ... by Data-Driven EnviroLab and the NewClimate Institute, there has been a three-fold increase in the number of businesses that have set net zero goals, rising from 500 at the end of 2019 to 1,541 currently. Similarly, the number of regional governments with net zero goals has climbed from 11 to 101 so far in 2020, the number of city-wide net zero commitments has risen eight-fold from 100 to 823. With a growing number of countries also setting net zero goals, the latest signatories to the Race to Zero programme mean that a sizeable chunk of global GDP is covered by sweeping decarbonisation goals in line with the targets set out in the Paris Agreement.  
<https://www.businessgreen.com/news/4020416/race-zero-global-net-zero-commitments-double>

### **Sunday 11<sup>th</sup> October**

Dear loving Father, we are sorry for destroying your world. We are sorry for the pollution of the sea and for pouring gallons of oil into it every year.

We are sorry for the car fumes in the atmosphere, for acid rain and all the things it destroys.

We are sorry for the destruction of animals and their homes, and for litter in the streets.

Please help us to make our world a better place. Amen.

O God, the whole of creation groans Set us free and make us whole  
(Geraldine Murphy, aged 10)

### **Monday 12<sup>th</sup> October**

Global banking firm Morgan Stanley has unveiled a new commitment to reach net-zero financed emissions by 2050, while new research reveals that while almost half of the FTSE 100 companies have net-zero commitments in place, they don't yet have detailed strategies to reach these goals [see tomorrow's entry]. Morgan Stanley currently holds more than \$2trn in client assets, growing exponentially from \$546bn in 2008 during the financial crash. The new net-zero commitment will cover emissions from its financial portfolios and offerings. "Climate change is one of the most complex and interconnected issues of our time," said Audrey Choi, chief sustainability officer at Morgan Stanley. "Morgan Stanley believes we have an important role to play in facilitating the transition to a low carbon future, and we are proud to embark on this journey."

<https://www.edie.net/news/6/Morgan-Stanley-commits-to-net-zero-financed-emissions-by-2050/>

### **Tuesday 13<sup>th</sup> October**

New research from sustainability consultancy EcoAct has found that 45% of the UK FTSE 100 have a net-zero commitment in place by no later than 2050. However, only 16% have a dedicated strategy in place to meet the commitment. Banking firms are amongst the best performing corporates in this area, according to EcoAct, which ranks FTSE 100 organisations based on sustainability reporting performance. The likes of Lloyds, Barclays, NatWest Group and HSBC all appear in the top 20 corporates based on the scoring criteria. Unilever is ranked as the best-performing corporate. The analysis found that only 35% of FTSE 100 companies currently have science-based targets in place. While three-quarters of FTSE 100 companies are calculating and disclosing their Scope 3 emissions, only 33% have a target to reduce them. [Reported on 12<sup>th</sup> Oct link, full report link below:]

<https://info.eco-act.com/en/sustainability-reporting-performance-ftse-100-2020>

### **Wednesday 14<sup>th</sup> October**

Ecuador's two oil pipeline operators prematurely halted clean-up operations

[in early September], declaring the remediation complete despite evidence of ongoing pollution in both the Coca and Napo rivers – tributaries to the Amazon river. The move by the OCP pipeline consortium, which includes CNPC, Sinopec, Repsol, and others, and the state-run Petroecuador, came as an Ecuadorian lower court judge ruled against thousands of Kichwa Indigenous peoples affected by the massive spill, which dumped an estimated 15,800 barrels (664,000 gallons) of crude oil and other pollutants into Amazon rivers and tributaries.

<https://www.amazonfrontlines.org/chronicles/ecuador-amazon-ongoing-oil-contamination/>

### **Thursday 15<sup>th</sup> October**

A German startup is bringing the lightness of kites to green energy production by building small flying wind turbines that use 10 times less material at half the cost of traditional options. In June, KiteKRAFT hit a major milestone with a 7-foot kite prototype, completing its first figure-8 flight, the motion that will provide the system's wind power. The kite has small onboard spinning wind turbines, which essentially act like regular blade tips. It does not need a tower made of hundreds of tons of concrete and steel or a foundation to hold those blade tips in the air, but instead uses smart algorithms to find

the best location in mid-air. Logistics, installation, and inspections are much simpler and the kite can easily reach stronger winds at higher altitudes. "Cost savings of over 50% compared to other sources are possible," says the company

<https://www.goodnewsnetwork.org/kite-raft-builds-wind-turbine-kites-in-germany/>

### **Friday 16<sup>th</sup> October**

A new report conducted by the Institute & Economics and Peace suggests... that by 2050, the climate crisis could displace 1.2 billion people, eventually leading to more refugee crises, global insecurity, and even more international conflicts —essentially, a world without peace. The Institute for Economics & Peace is a thinktank that conducts research with a goal of changing "the way the world thinks about peace." The group recently published the report, titled the *Ecological Threat Register*, using data from the UN and other groups to evaluate eight of the strongest ecological threats to predict which populations will be hardest hit by the climate crisis over the next 30 years

<https://www.greenmatters.com/p/climate-crisis-refugees-2050>

### **Saturday 17<sup>th</sup> October**

Ocean Conservation Trust scientists and conservation practitioners based at

the National Marine Aquarium in Plymouth are tending to tanks of rotting seagrass. Their work is a vital step in safeguarding this important habitat for future generations. A widely distributed temperate seagrass species commonly referred to as eelgrass (*Zostera marina*) once formed extensive meadows around the coastal waters of the British Isles but are now categorised as being nationally scarce. Large scale simultaneous die-offs of *Z. marina* meadows were observed on both sides of the Atlantic and Pacific oceans in an outbreak of 'wasting disease' in the 1920s and 1930s, leading to a 90% reduction in habitat cover. In recent decades, populations of *Z. marina* have continued to decline. Increased nutrient loading in the water is a major issue, increasing their susceptibility to disease and promoting the growth of epiphytic algae, seagrass lose their ability to absorb light and eventually die.

<https://theecologist.org/2020/sep/23/restoring-seagrass-meadows-england>

### **Sunday 18<sup>th</sup> October**

"For four centuries all world societies have been held hostage to a myth, the myth of progress and uninterrupted growth. Countries must show higher rates in the production of goods and services every year. That is the standard for judging whether a country is developed, under-developed or just