

sake of Jesus our Lord and Saviour.

Amen

Monday 30th September

When the Government planned to exclude climate change from the National Curriculum, public outrage caused it to reinstate a passing reference to it in Key Stage 4 (11-14 year olds), but to exclude it from junior schools. All references to sustainable development have also been dropped. Nic Reeves, late Director of CIWEM, who sadly died in July, commented: "Without good knowledge and understanding of the social, economic and environmental impacts of climate change, how can we expect young people to be ready to deal with future shocks and find the solutions so crucial to their future? Climate change remains the single most urgent and important issue facing the world. Instead of being pushed out, it should be embedded and placed at the heart of education. This would be a real sign of political will and of a government committed to being the greenest ever."

Sources:

The Environment

"Snake Oil" (Richard Heinberg)

www.edie.net

Additional Prayers

If you would like to receive the prayer diary each month by email (free), please email prayer-guide@christian-ecology.org.uk

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Prayer guide for the care of creation

September 2013



"Trust in the Lord with all your heart and lean not on your own understanding.
In all your ways acknowledge him and he will make your paths straight."
(Proverbs 3.5-6)

"Prayer is the slender nerve which moves the muscle of Omnipotence."
(Charles Spurgeon)

"When it comes to climate change . . . what is often missing is quiet reflection and passionate prayer. As the world descends into fearful uncertainty, we need space to ask God for his perspective and intervention, to think about what our abuse of his creation says about us, and to plead for a new vision of God's purposes for us in his world."
(Dave Bookless)



ChristianEcologyLink

Sunday 1st September

Lord, you have given us this beautiful with the ability to harvest its products for our nourishment and comfort.

Yet in our greed we are robbing future generations, poisoning your world and destroying many of your creatures.

Help us, dear Lord, to come to our senses, to know that we interfere with your world at our peril, for it is your hand, not ours, that rules your world, for you created the universe and we have been put on earth to look after it in your Name.

Amen

Monday 2nd September

Water UK, which represents all our major water suppliers, has warned that fracking for shale gas raises the risk of water shortages and contamination of drinking supplies with methane and harmful chemicals. "The fracking process requires huge amounts of water which will inevitably put a strain on supplies around extraction sites." It adds: "The power of the drilling and fracturing process risks damaging water pipes, which could lead to leaks and shortages in people's homes and businesses." The water industry has commissioned a report into the potential impact on water supplies. Shale gas firm Cuadrilla says it is "too early to say" how much water would be needed in developing shale sites.

Tuesday 3rd September

American researcher J. David Hughes, analysing shale gas production from the top five US production sites, finds a boom-and-bust pattern everywhere. Production declines by an average of 80-95% within 36 months. He calculates that, in order to maintain present production rates, 30-50% of shale gas production must be replaced each year –

amounting roughly to 7,200 new wells a year. We are reminded of the Red Queen, running fast but getting nowhere, and explaining to Alice: "It takes all the running you can do, to keep in the same place."

Wednesday 4th September

The US Environment Protection Agency reports that wastewater used in fracking is too radioactive to be dealt with safely by municipal treatment plants. A study in the Proceedings of the National Academy of Sciences reports that chloride from fracking wastewater ended up in Pennsylvania's rivers even after it had been treated at municipal facilities. Another study from the NAS found that methane concentrations in wells near active fracturing were 17 times higher than in wells in inactive areas. These findings suggest that fracking and water safety just don't mix.

Thursday 5th September

Methane gas is at least 20 times more potent than CO₂ as a contributor to global warming. A study by the US National Oceanic & Atmospheric Administration reported that 9% of the natural gas produced in a gas field in Utah was leaking into the atmosphere. A report on pipeline leaks under Manhattan streets estimated the total losses of gas in production and transmission exceed 5%. This suggests that greenhouse gas emissions from methane – especially from fracking – are worse than those from coal over a period of 40 years.

Friday 6th September

The ratio of energy produced as compared with the energy required to produce it is known as EROEI (energy return on energy invested). New gas and oil fields tend to require greater investment than old ones. The low-hanging fruit

Wednesday 25th September

The leaders of environmental charities Groundwork and Keep Britain Tidy have urged business-led Local Enterprise Partnerships to place protection and development of green spaces at the heart of a £6 billion EU project. According to Natural England there were 4.3 billion visits to urban parks and green spaces in the 4 years since 2008, with almost 90% saying the visit made them "refreshed and revitalised" or "calm and relaxed". People with easy access to green spaces are 40% less likely to become obese, a condition which currently costs the NHS £5 billion a year. Keep Britain Tidy CEO Phil Barton said: "The first public parks were created by enlightened civic leaders working with industrial philanthropists with the help of public subscriptions. We need to rediscover this spirit of joint enterprise."

Thursday 26th September

A report from ActionAid claims that the EU requirement to source 10% of vehicle fuels from renewables by 2020 is indirectly promoting biofuels as a greener alternative to fossil fuels. "While 1 in 8 globally goes hungry, agricultural land is being diverted from food production to produce biofuels. In the UK we already use enough food as fuel to feed around 10 million people each year. In sub-Saharan Africa 6 million hectares of land – 38 times the size of London – are now under the control of European companies (30 of them British) seeking to make money from Europe's biofuel policies.

Friday 27th September

The European Investment Fund is to contribute 25 million euros to the Althelia Climate Fund, which is developing revenue streams from forest protection and sustainable land use. Firstly, it

will invest in forest carbon and other socially-orientated tradable carbon assets. Secondly, it will increase the volume and quality of sustainably-produced, certified agricultural products. Its strategy, focussed mainly on Africa and Latin America, is to align the interests of local communities and the fund.

Saturday 28th September

The Worldwatch Institute has published "State of the World 2013: Is Sustainability Still Possible?" in which Erik Assadourian argues that environmental groups have become increasingly splintered, focussing on niches such as conservation, climate change and land degradation, rather than addressing root causes – namely society's fixation on growth and consumerism. He suggests they take a look at missionary religions and create a comprehensive philosophy complete with ethics, human purpose, cosmology, exemplars and stories of redemption. If they were to offer ecocentric social services including food, clothing, education, livelihoods and medical care, eco-philosophies could be spread more widely through schools, hospitals, homeless shelters, libraries, community lenders and other essential institutions.

Sunday 29th September

Father, we know that while we in our country have an abundance of good things, much of the world is in terrible want.

While we have money enough and to spare, vast numbers are desperately poor.

While we have far more to eat than we need, multitudes are going hungry day by day.

Lord, give us courage to face these things and to think deeply about them. May thought lead to action in whatever way is in our power, for the

use it to improve the quality of life for everyone. To increase the birthrate or encourage immigration to avoid the hiatus would simply hand over the unsolved problem to the next generation. We can do better than that.

Friday 20th September

The Office of National Statistics reveals that Britain's population of 63 million is growing by 1,000 people a day. We could have another 10 million by 2050. England and Wales are seeing the fastest increase in population since records began in 1801. Towns and cities are merging together. All parts of the NHS are under strain. Today's babies will need another 800,000 primary school places by 2020. We need 300,000 new homes a year. There are 2 million people on housing waiting lists. Road traffic is expected to grow by 44%. Rail is running at full capacity with over 1 billion journeys a year. Instead of painting a doomsday scenario, we need to offer a vision of a sustainable and secure society, with a planned scaling-down of the birthrate to achieve it, and technological invention to make the transition as painless as possible.

Saturday 21st September

Every year around September 22nd World Carfree Day encourages people to get together in streets and neighbourhood blocks to remind the world that we don't have to accept our car-dominated society. WCD is the perfect opportunity to take the heat off the planet and put it on to city planners and politicians to give priority to cycling, walking and public transport. For information about local WCD events, go to www.infocarfreeday.com

Sunday 22nd September

Lord of all nations, we pray for rulers and statesmen who are called to leadership in world affairs.

Give them the vision to see far into the issues of our time, courage to uphold what they believe to be right, and integrity in their words and motives.

May their service to their peoples promote the welfare and peace of all humankind, through the strength of Jesus Christ our Lord. Amen

Monday 23rd September

A report from Global Food Security says that with global population expected to rise from 7 billion to 9.3 billion by 2050, demand for food will increase by 50-70%. While 868 million people go under-nourished, an estimated one-third of all food produced globally goes to waste, 75% of it at the consumer stage. In Britain, the report claims, up to 40% of edible fruit and vegetables are turned away because of retailer standards of how the food should look.

Tuesday 24th September

The report says: "Much discussion on food security in the UK has concentrated on the supply side, but as time goes on, it becomes increasingly difficult to grow enough to meet demand. It makes no sense for us to continue to buy a lot, and then over-eat. If we carry on getting more obese, we will be spending billions more on cardiovascular disease and diseases of over-consumption, and there isn't going to be enough food to go round." The report recommends that calorie intake should ideally fall by one-third, while supermarkets should cut pack sizes and halt buy-one-get-one-free promotions, and that restaurants should offer smaller portions.

has long been gathered. When the ratio approaches 5:1 or worse, recovery becomes uneconomic. Tim Morgan of Tullett Prebon believes that higher energy costs could absorb almost 15% of GDP by 2030. "The critical relationship between energy production and the energy cost of extraction is now deteriorating so rapidly that the economy as we have known it for more than two centuries is beginning to unravel." Richard Heinberg in "Snake Oil" comments: "Failing to notice this historic shift while celebrating a temporary breakout in oil and gas production in Texas, Pennsylvania and North Dakota, seriously hampers our ability to adapt to quickly-changing circumstances."

Saturday 7th September

The energy dilemma can be simply stated:

- Oil and gas are so abundant that if we burn much of what remains, we risk a climate catastrophe beyond imagining.
- There isn't enough economically-accessible oil and gas to maintain economic growth for much longer.

For politicians to convey these seemingly contradictory messages to ordinary people is a challenge which we must hope they will finally take up. The only realistic answer both to climate change and our economic vulnerability is that we must reduce our dependency on fossil fuels as quickly as possible. Either we break our addiction or we suffer the consequences, which will impact future generations as well as ourselves.

Sunday 8th September

Father, we lay before you the needs of the world's poor, the need for food, clean water, sanitation and fuel. Help us to stand with them in the search for renewable resources that do not destroy your creation. Empower those who

are working on gentle technologies appropriate to small communities and give to industrial leaders the strength and integrity to promote such developments. This we ask in the Name of Jesus Christ our Lord. Amen

Monday 9th September

US marines in Afghanistan are equipped with solar cells to recharge radio batteries and almost weightless solar blankets. The Pentagon is already off-grid for its energy and Pearl Harbour will follow. The US Department of energy expects the cost of solar power to fall by 75% between 2010 and 2020. Solar is expected to provide 27% of US power demand by 2050.

A team at Oxford University is working on perovskite, a cheap material that, in a thickness of 1 micrometre, can catch the same amount of sunlight as normal silicon layers of 180 micrometres thickness. estimated."

Tuesday 10th September

A third of UK cars now run on diesel – up from 7.4% just 9 years ago. The rise has been deliberately encouraged because diesel vehicles emit slightly less CO₂ than petrol-driven cars. But tiny particulates emitted from diesel engines are officially calculated to kill 29,000 people a year – more than 10 times the number who die in car accidents. The Government's Committee on the Medical Effects of Air Pollution suggests that particulates may play a part in 200,000 more deaths. In 2012, the WHO designated diesel fumes as a cause of cancer alongside asbestos and plutonium. The most deadly particulates come from black carbon, which is now considered one of the most potent causes of global warming. So the saving in CO₂ emissions is almost certainly outweighed by the rise in diesel emissions.

Wednesday 11th September

The other big danger from car exhausts is nitrogen dioxide which, according to a study of 25 major cities, could account for up to 30% of all new cases of childhood asthma. Unfortunately EU emission standards allow diesel engines to emit far more nitrogen dioxide than petrol ones. In the US, where equal limits apply, only 0.6% of cars burn diesel fuel. Worse, scientists from King's College London find that, while emissions from petrol engines have fallen by 96% since 2000, emissions from diesel engines have remained much the same.

Thursday 12th September

A report from technology advisory firm Digital Power Group finds that the increased use of data accessed through mobile phones accounts for nearly 10% of world electricity consumption. Information technology now uses about 1,500 terawatt hours of electricity annually – an amount equal to all the electricity generated by Germany and Japan combined. This is largely due to the energy intensity of smartphones using mobile data. Watching one hour of video weekly on a smartphone consumes annually more electricity than two refrigerators running continuously. Peter Hopton, representing the Chartered Institute for IT, comments: "I'm not suggesting we ban mobile data. Instead, service providers must recognise the impact that this kind of data usage is having on the environment and make sure that the underlying infrastructure is stored in environmentally-friendly facilities – particularly as savvy, modern consumers could boycott those which aren't. The solutions to make these facilities green are available. It just takes a little effort from IT decision-makers to implement them, and it's up to the rest of us to make them sit up and take note."

Friday 13th September

Carlsberg UK, which includes Tetleys, Tuborg, San Miguel and Somersby, has launched its "Every Can Counts" campaign to increase the recovery and recycling of aluminium cans at outdoor events across the UK. Its head of CSR, Matt Wedderburn, said that Carlsberg's involvement would help customers, suppliers and consumers to engage on a variety of sustainability initiatives, not just on aluminium recycling.

Saturday 14th September

Dame Ellen MacArthur, the fastest woman to sail non-stop around the world, established the Ellen MacArthur Foundation dedicated to changing the way we design, build, own and use everything from cars to carpets. This month she will address the World Economic Forum, politely telling the global plutocracy how and why it could do better. At the WEF meetings in Davos she produced a 96-page report from management consultants McKinsey explaining how a switch from a "linear economy" to a "circular economy" represents a \$630 billion bonanza for Europe alone. She aims to show that making money and saving the Earth need not cancel each other out. "We can and must decouple growth from resource constraints."

Sunday 15th September

Father, we thank you for the fruits of science and technology. We pray that human technology will never crush the human spirit.

We praise you for your great gifts of freedom and inventiveness, and we pray for wisdom to use them aright in your service and in the service of all around us. Amen

Monday 16th September

Ellen MacArthur's 2- month stay on Albatross Island off South Georgia showed her what happens when a whole industry employing 4,500 people engaged in whaling simply disappears.

What about all our other non-renewable resources? Will the whole world go the way of the ghost town on South Georgia, or can the economy be re-fashioned so that it continues functioning in the long term?

Michelin has started leasing rather than selling its tyres. When each tyre has done a certain number of miles, it gets re-manufactured and supplied back to the trucks. That's highly beneficial to the manufacturer, while the haulier knows he will get a good service. The same principle could apply to washing machines, cars, phones, office lighting etc. Team MacArthur avoids the language of environmentalism, but quotes examples of best practice that can make investors salivate.

Tuesday 17th September

Last spring a coalition of charities launched its "Enough Food For Everyone – IF" campaign to eliminate global hunger. Among the key issues of the campaign, population was conspicuous by its absence.

Currently we are using one and a half planet's worth of resources each year. By 2030 on current population trends, this could absorb two planet's worth of resources per year. Africa's population is growing at twice the global rate. 90% of its people depend on wood for their main energy source, but all round the world forest cover is shrinking by 13 million hectares a year. The Green Revolution of the 1960s and 1970s brought methods of farming that have kept most of the world fed ever since. But the cost has been the proliferation of fertilisers which leach

into rivers and oceans and damage food resources there, antibiotics which encourage the development of resistant diseases and the destruction of forests and vegetation which hold the soil together and produce much of the rain which many people depend on for food and water.

Wednesday 18th September

"We have been God-like in our planned breeding of domesticated plants and animals, but we have been rabbit-like in our unplanned breeding of ourselves."

(Historian Arnold Toynbee)

Everyone wants their grandchildren to inherit a safe and beautiful world – this is the supreme duty owed by one generation to another – a world where humanity lives in balance with the environment, where wildlife habitats are restored and where there is enough food, water, shelter, energy and employment. But the price to be paid for this future is to limit our reproduction to balance the extra life won for us by medical science. Every third child born in 2013 has a life expectancy of 100 years. If we want these children to have fulfilled lives, there has to be fewer of them.

Thursday 19th September

Every individual imposes a cost on the environment and on every other living creature on the planet. We all need living space, food, water and shelter. And we all generate waste. It is claimed that rising living standards will limit population growth. But why gamble on the assumption that living standards will rise, or that wealthier people will choose smaller families?

Reducing the birthrate will bring about a demographic hiatus for several generations, but we can plan for this. Instead of using technology to accommodate a growing population, we can