they could not be bribed. A study of the situation suggested that the intrusion of market norms crowded out their sense of duty.

Thursday 31st October

Aritotle taught that virtue is something we cultivate with practice. "We become just by doing just acts, brave by doing brave acts." Rousseau believed that the more a country asks of its citizens, the greater their devotion to it. "In a well-ordered city every man flies to the assemblies." Under a bad government, nobody participates in public life because nobody is interested in what happens there, and domestic cares are all-absorbing. He is saying, in effect: "As soon as public service ceases to be the chief business of the citizens, and they would rather serve with their money than with their persons, the state is not far from its fall."

Sources:

"What Money Can't Buy" by Michael Sandell Centre for Alternative Technology Chartered Institution of Water and Environmental Management Transition Free Press Population Matters Resurgence & Ecologist

Additional Prayers

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

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Picture on front cover: Golden Rod by Poppy Pickard

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Prayer guide for the care of creation



October 2013

"Ask, and it will be given you; search, and you will find; knock and the door will be opened for you." (Luke 11.9)

"Tell God all that is in your heart as one unloads one's heart to a dear friend. Tell him your troubles that he may comfort you; tell him your joys that he may sober them; tell him your longings that he may purify them; tell him your dislikes that he may help you overcome them; show him the wounds of your heart that he may heal them. Tell him – he's your friend." (Francois Fenelon 1651-1715)

"Prayer is the most important work in the kingdom of God."

(O. Hallesby)



Tuesday 1st October

On May 4th 2013, at the Mauna Loa observatory in Hawaii, CO₂ concentrations in the atmosphere of 400 parts per million were recorded for the first time. The "safe" figure is said to be 350 ppm. Lord Deben at this year's PRASEG conference pointed out that 90% of us spend over £120 a year to protect us against a 0.005% chance that our homes will burn down. Why then should it be wrong for 100% of us to pay a similar amount to protect against a 99.9% chance that much of the earth's surface will become unbearably hot if we have runaway climate chaos?

Wednesday 2nd October

An expedition to Svalbard led by Graham Westbrook of Birmingham University and Tim Minshull of the National Oceanography Centre found over 250 plumes of methane gas bubbling from the sea to the west of Svalbard. The Carnegie Institution for Science estimates the amount of methane released adds up to 27 kilotonnes a year. "If methane began escaping at similar rates throughout the Arctic, it would dramatically alter methane levels in the atmosphere. Methane is a greenhouse gas 23 times more powerful than CO₂. Methane hydrates could indeed be used as a new fossil fuel, but extracting the methane without releasing it into the atmosphere remains a challenge. Nevertheless, Japanese scientists are endeavouring to do just that.

Thursday 3rd October

A study from the Potsdam Institute for Climate Action Research finds that, even if global warming is limited to 2 degrees above preindustrial levels, 500 million people (over 7% of world population) will be at risk of water scarcity. If global temperatures rise by 3.5 degrees, nearly 668 million people will experience new or highly-intensified water scarcity, with the most severe impacts being felt in the Middle East, N. Africa, S. Europe and the South West of the United States.

Friday 4th October

A series of weekly talks entitled "Climate Change and the Christian" begins today at 7.30 pm,

in All Saints Church, Ascot SL5 8DQ. Today's talk on "Reading the Bible in a time of environmental crisis" is given by Professor Richard Bauckham, Further talks are:

October 11th The Science of Climate Change. October 18th "Saving souls – not seals". The Gospel and Climate Change.

October 25th "How should we then live?"

For further details, go to: www.oxford.anglican.org/climate-change-andthe-christian.

Saturday 5th October

Five Nordic countries plus the USA have joined the World Bank and European Investment Bank in ending public finance for new coal-fired power stations overseas, except in rare circumstances. WWF calls on all financial institutions to commit \$40 billion to new investment in renewable energy by June 2014 and to phase out investments in fossil fuels through a just transition. At the international negotiations in Poland next month, it is hoped that all countries will join in phasing out investment in coal-fired power stations. "It is vital to make concrete progress at the next UN climate negotiations as we near the tipping point in climate change." begin to demand fewer other children, all competing for services and resources, politicians will start to take the issue seriously.

Saturday 26th October

According to the US-based Population Reference Bureau, Africa's population will more than double in 40 years, reaching 2.4 billion by 2050, thanks largely to better health care. African mothers currently have an average of 5.2 babies, rising to 7.6 in Niger, one of the poorest countries in Africa. By 2050 Kenya's population will have risen from 44 million to 97 million, Nigeria's from 174 to 440 million and the Democratic Republic of Congo's from 71 to 182 million. Julia Schunemann of South Africa's Institute for Security Studies comments: "This is clearly going to increase pressure on Africa's governments to deliver education, health care. security and jobs, but it should also be seen as an opportunity too. African countries have the world's fastest economic growth rates. The question is: Can those economies grow fast enough to offset the demands of population growth? I don't think we should be too pessimistic."

Sunday 27th October

Dear Father, as we see in the news media the devastation caused by the selfish promotion of political and economic ideologies, we pray earnestly for a change of heart among the nations and for a massive re-direction of human resources towards the relief of suffering and the restoration of your world.

Monday 28th October

In his book "What Money Can't Buy" Michael Sandell asks the question "Isn't there something wrong with a world in which everything is for sale? And how do we protect the things that really matter?" He looks at how money incentives tend to elevate markets over morals in many areas of life. But "altruism, generosity, solidarity and civic spirit are not like commodities that become depleted with use. They are more like muscles that develop and grow stronger with exercise. One of the defects of a market-driven society is that it lets these virtues languish. To renew our public life, we need to exercise them more strenuously."

Tuesday 29th October

Richard Titmuss in "The Gift Relationship" compares the system of blood collection in the UK, where all blood collection is given voluntarily, with the US system, where commercial blood banks buy blood from mostly poor people. He found that the American system led to chronic shortages, wasted blood, higher costs and a greater risk of contaminated blood. His ethical standpoint is that creating a market in blood exploits the poor, erodes people's sense of obligation to their fellows, diminishes the spirit of altruism and undermines the "gift relationship" as an active feature in social life. He attributes the decline of voluntary bloodgiving in the US to the rise of commercial blood banks. "Commercialisation and profit in blood has been driving out the voluntary donor."

Wednesday 30th October

In 1993, the Swiss village of Wolfenschiessen faced a local referendum on whether to accept a nuclear waste facility near the village. 51% of residents accepted the proposal, reasoning that their sense of civic duty outweighed concern about the risks. Then officials added a "sweetener" in the form of an annual payment for each resident plus a second referendum. This time the rate of acceptance fell to 25%. Later, 83% of those who rejected the monetary proposal explained their opposition by saying Redeem us, redeem your world, heal its wounds and dry its tears, for the sake of your Son, who died that we might truly live.

Monday 21st October

Every time it rains, raw sewage enters the River Thames from London's antiquated sewers. Discharges that were designed as a last resort now occur on average once a month after a mere 2 mm. of rainfall, so causing depletion of dissolved oxvgen in the river and mass kills of juvenile fish. The Thames Tunnel Now coalition of 30 environmental charities believes that the planned Thames Tideway Tunnel must be part of the solution., despite the inevitable disruption it will cause in London's streets. New York plans to spend over \$2.9 billion on grey infrastructure to reduce combined sewage outflows, and Paris, Stockholm, Helsinki, Washington and the Rhine/Ruhr conurbation have plans similar to the Thames Tideway Tunnel. This, together with existing plans for Sustainable Urban Drainage, could ensure that the Thames again becomes a waterway of which Londoners can be proud.

Tuesday 22nd October

Students from Rugby High School, competing in Stockholm for CIWEM's Tomorrow's Water competition, emerged as winners for an original study measuring the hydrodynamic load on wave energy structures, which could be useful in wave energy projects around Britain's coasts. A Highly Commended Award went to Patrick Holt for his fully automatic water pump, developed to provide a local and accessible source of clean water for people in less developed countries.

Wednesday 23rd October

Today the annual John Stott Lecture takes place at 6 pm in the Huxley Lecture Theatre at London Zoo, Regents Park NW1 4RY. The speakers on Creation Care are the Rev. Dr. Chris Wright on the biblical; basis for environmental engagement and David Nussbaum director of WWF-UK who will reflect on his involvement as a Christian working in conservation. The cost of £9.90 includes a light lunch and half-price entry on the day to the zoo. For details, go to: www.licc.org.uk

Thursday 24th October

Air pollutants such as particulate matter from diesel engines cause 29,000 deaths a year in the UK at a cost to the economy of £15 billion a year. CIWEM's report "Clearing the Air" holds that the current strategy, based on the 2008 National Air Quality Strategy, is out of date. A full revision is required to reflect current evidence of harm being done to human health and ecological systems. "The protection of human health and the environment must not be relaxed due to current economic conditions, but should take full account of health and environmental impacts, which also have economic costs." The report can be seen at www.ciwem.org/clearingtheair

Friday 25th October

According to the Office of National Statistics, the UK population grew by 420,000 in the 12 months to June 2012. Politicians tell us that the solutions to many problems in our crowded island lie in creating more services, more houses, more schools, more hospitals, and even more babies to become working adults and pay taxes to support our social security system. Few are prepared to break the taboo and mention the root of the problem – our numbers. The turning point will come when voters realise that shortages in services, indebted institutions, degraded food and ecosystems, all impacting on their families, are the ultimate result of overpopulation. When people with children

Sunday 6th October

Creator God, whose good earth is entrusted to our care and delight, we pray:

For all who are in captivity to debt, whose lives are cramped by fear,

For all who depend on the earth for their daily food and fuel,

For all who labour in poverty, who are oppressed by unjust laws, who are banned from speaking the truth, who long for a harvest of justice,

For all who are in captivity to greed and waste, whose harvest is choked with things they do not need.

Turn us again from our captivity and restore our vision, that our mouths may be filled with laughter and our tongues with singing.

Monday 7th October

According to Jonathon Porritt, "There remains an undeniable gap between the current policy mix (on energy) and what we need to do both to reduce emissions of greenhouse gases and to avoid the potentially devastating consequences of declining fossil fuels." Therefore he supports a method of using the market to remove fossil fuels from the economy known as Tradable Energy Quotas (TEQs). An annual TEQ budget is set by the independent Committee on Climate Change and every adult is given a weekly entitlement of TEQ units to use when buying fuel or energy. If you use less than your entitlement, you can sell the surplus. If you need more, you can buy them. The price rises and falls with demand. Government and businesses bid for the units they need at a weekly auction. Buying and selling would be as easy as topping up a mobile phone.

Tuesday 8th October

Planning permission has been given for Europe's largest tidal energy project, to be sited in the Pentland Firth. Phase 1 consists of 6 tidal turbines generating 86 MW. of electricity – enough to power 42,000 homes. Phase 2 could eventually yield up to 398 MW. of electricity, while the Carbon Trust estimates that UK wave and tidal resources could provide 20% of the UK electricity demand.

Wednesday 9th October

The UK wind industry now employs 18,465 people, an increase of 74% since 2010. 30% of them work in construction and installation, 25% in planning and development, 18% in support services, 16% in operations and maintenance. RenewableUK comments: "Ambition and investment in our technologies will see an increasing percentage of our electricity coming from wind, wave and tidal sites. To achieve this green economy, Government has a role to play in ensuring that a long-term vision for the wind, wave and tidal sectors is clearly set out so that business has the confidence to invest in hiring and training the next generation of workers."

Thursday 10th October

Fracking continues to be a source of controversy. Paco Ramos of Greenpeace Spain explains that the fluid used in fracking is 98% water, the rest being a mix of around 600 toxic chemicals including mercury, lead, uranium and methanol. The migration of this fluid, usually due to bad sealing and poor well construction, is a commonly documented problem. Objectors warn that this pollution contaminates and even destroys aquifers. A report from Fracking EZ Araba estimates that, in order to produce just 10% of UK gas consumption for 20 years, some 25,000 – 30,000 wells would be needed each year. The report warns that badly-sealed and abandoned wells could lead to a leakage of methane into the atmosphere – a much more potent greenhouse gas than CO₂.

Friday 11th October

A new book called "Plastic Ocean" describes the discovery of what is now known as the Great Pacific Garbage Patch, where waste plastic outnumbers life-giving zooplankton by 6 to 1. and filter feeders appear to ingest more plastic than plankton, suggesting that plastic is disrupting the entire marine food chain. Captain Charles Moore describes his 1997 discovery of the garbage patch up to his emergence as a citizen-scientist. He argues that, despite the advantages of plastic, single-use plastics such as shopping bags and drink bottles are contributing to the degradation of the natural world. Possible solutions include "chemical recycling", a process that cracks plastic polymer back to its monomers for re-use. He also advocates marine-biodegradable plastic that can be broken down by aquatic bacteria. But the most effective path to change is a consumer groundswell of opinion that refuses plastic packaging.

Saturday 12th October

Research by TetraPak has found that more than 50% of consumers believe that bio-based plastics including paper will improve the environmental performance of carton packaging. "The ability to recycle packaging material is a top priority among food industry stakeholders when developing a new product or service. . . We believe that by finding new ways to process, package and distribute food and to deal with waste, and by working with partners throughout the value chain, we will make a difference for the futures of the company, industry and society."

Sunday 13th October

We cry to you, Lord, to protect your creation, to defend the work of your hands.

Save our generation from our addiction to fossil fuels.

Wash our hands of their clutch on dirty energy.

Clean our hearts of our desire for more and more.

Turn our souls away from materialism and our wish to take and take again from your sacred but finite world.

Give us a vision of the blessings we will receive if we turn away from idolatry of the economy and bow to wisdom and truth.

Show us that a kinder and simpler lifestyle will allow us to see your glory more clearly. Let your glory shine through your kingdom.

(Ruth Jarman)

Monday 14th October

For many years engineers have struggled to find ways of storing electricity. A Quarry Battery is a pumped-storage hydropower system consisting of two large water reservoirs with a height difference and a pipe connecting them. Electricity is used to pump water from the lower to the upper reservoir. Then, when energy is required, water rushes down from the upper to the lower reservoir, passing on its way through a hydroelectric turbine which produces electricity. The Dinorwg Power Station near Llanberis does this on a large scale, with a storage capacity of 9.000 MWh. It is believed that smaller systems are both technically and economically viable. Glyn Rhonwy is a pair of abandoned slate guarries suitable for conversion into reservoirs with a storage capacity of 600 MWh.comparable to what 100.000 households consume in 10 hours. £1 million has already

been raised. If planning permission is obtained, more investors stand ready to support the project. Other sites also are suitable for pumped storage. www.quarrybatterycompany.com

Tuesday 15th October

Green roofs covered in vegetation can help reduce flooding by absorbing storm water and releasing it slowly. They also help reduce hotspots of overheating in cities, provide habitats for wildlife and offer spaces for growing food. The roof must be strong enough to support soil and plants, it must be slightly pitched to assist drainage and it must be covered with a waterproof membrane. For more details, go to: www.cat.org.uk

Wednesday 16th October

Electric cars are cheaper to run than petrol or diesel: fuel costs are £400 for 12,000 miles compared to £1400 for petrol/diesel. But they need charging every 75 miles or so, requiring several hours at a domestic socket or half an hour at a fast charging point. To rent a battery costs around £70 a month.

Electric buses have no such problems. Battery charging can be done by standing the bus over a recharging pad where the electric current in the transmitter pad induces a current in the receiver pad. Electric buses offer big wins in terns of noise and air pollution, which could make our cities far more pleasant places. For more information go to:

www.cat.org.uk/snip/94713

Thursday 17th October

Europe recently introduced a law to reduce pollution on all flights to, from and within Europe. US airline lobbyists then persuaded President Obama to allow an exemption for US airlines from Europe's climate laws. Flying Clean is working to make sure that US airlines know that international pressures are building up to secure their agreement to the climate rules. <u>www.flyingclean.org</u>

Friday 18th October

This weekend a CEL Retreat takes place at Ringsfield Hall, Suffolk, around the theme ".. and a little child shall lead them" (Isaiah 4). It will explore ways of reconnecting children with the natural world and using the healing processes of nature for reflection and activities, while allowing opportunities for time alone. The cost of the weekend is £120, but there are concessions. For enquiries, please ring Chris Walton on 0788 1941296 or email <u>GreenEditor@aol.com</u>

Saturday 19th October

From tomorrow until the 27th One World Week brings people together at many local events to share ideas about global issues such as:

Have we had **more than enough** of consumer culture getting in the way of relationships with others in our communities?

Have we had **more than enough** of being defined by what we possess?

Have we had **more than enough** of seeing our planet irrevocably consumed?

Do we take more than enough ourselves?

For more details, go to:

www.oneworldweek.org/v2/2013-more-thanenough.html

Sunday 20th October

Dear Father, please teach us how to live more simply, to be more sensitive towards your creation and to care for all the life that you have created. Help us to turn from our arrogant ways.