
Prayer guide for the care of creation



July 2010

They "The God who made the world and everything in it, he who is Lord of heaven and earth, does not live in shrines made by human hands, as though he needed anything, since he himself gives to all mortals life and breath and all things . . . He is not far from each one of us. For in him we live and move and have our being, as some of your poets have said".

(St. Paul to the Athenians in Acts 17, 24-5 & 27-8)

"Let us not become weary of doing good, for at the proper time we will reap a harvest if we do not give up."

(Galatians 6.9)



Thursday 1st July

A ground-breaking report from the Centre for Alternative Technology called "ZeroCarbonBritain2030" sets out in detail the measures required to achieve carbon neutrality by 2030. It argues that the first thing to tackle is the huge wastage built into our energy supply system (PowerDown). Then, the PowerUp section emphasises the need for thousands of offshore wind turbines, not only to meet the increased demand for electricity resulting from growth in the electric car market, but also for exporting to the continent through a supergrid.

Friday 2nd July

Reducing the weight of cars by using carbon composites instead of steel, and using electricity to power them, are key ways to improve efficiency and reduce emissions. Riversimple, a UK company, has produced such a car. Its cars are leased, not bought, so providing an incentive for designing them for a long life. For bus and HGV fleets, hydrogen power may be a possibility where there is refuelling capacity at the fleet's base.

Saturday 3rd July

It is not possible to run aircraft on electricity, and hydrogen fuel would

produce water vapour which is a potent greenhouse gas. Aviation fuel can however be made from woody biomass using a biomass-to-liquids process known as the Fischer-Tropsch synthesis. ZCB2030 proposes using 1.67 million hectares of land for producing biofuels from miscanthus and short-rotation willow, but only if this land is no longer used for grazing livestock. Questions arise: Will this land be enough? And what if the land is essential for growing our food? Government plans to tax aircraft per flight instead of per passenger have been put on hold until the autumn.

Sunday 4th July

Heavenly Father, we face hard choices as we confront the realities of climate change and the depletion of natural resources. Help us to understand the opportunities offered by a return to a simpler lifestyle. Help us to fulfil our responsibilities to those suffering from our careless use of natural resources, and give us the resilience to adapt to a lifestyle that is fairer to others and gentler on your world.

Monday 5th July

"Decarbonising Agriculture and Land Use" is a key part of ZCB2030.

Emissions from agriculture can be cut by 60-70% by 2030 by

1. reducing grazing land from 11 million to under 2 million hectares
2. reducing land devoted to animal feeds from 2 million to 0.5 million hectares
3. cutting out all imports of grain and soya livestock feeds.

Non-ruminant livestock would remain the same number for laying poultry, 50% for table poultry and 80% for pig rearing. Livestock feeds would consist of legumes such as peas and beans, oil crops and food wastes for non-ruminants.

Tuesday 6th July

Will a reduction in livestock lead to an unbalanced diet? One answer would be to compare an optimum health diet with an optimum carbon/land use diet and see how far they tally. Colin Tudge in "Feeding People is Easy" makes such a comparison and reduces his answer to these words: "Plenty of plants; not much meat; and maximum variety". This is in line with recommendations from the Food Standards Agency and closely matches the Healthy Eating proportions recommended by the Harvard School of Public Health.

Wednesday 7th July

Nitrous oxide is claimed in the ZCB2030 report to be the biggest agricultural contributor to greenhouse gas emissions. But it suggests that soil nitrogen levels can be maintained without chemical fertilisers by clover leys, legume crops and assiduous recycling of crop and food wastes. If extra nitrogen is needed, this could be supplied from decarbonised electricity using hydrogen biomethane feedstock. However, others take a different view: "Maintenance of soil fertility and yields in arable farming would depend on the re-introduction of livestock, so that virtually all lowland farms once again become 'stocked'." (Dr. Howard Lee of Hadlow College of Agriculture)

Thursday 8th July

The land "released" by a reduction in livestock numbers would, under the ZCB scenario, be used as follows:

- Rotational leys would be used partly for grazing and partly for hemp, grown for oils, animal feed and building material
- Improved permanent pasture would be in the form of "energy silage" – perennial grasses stored as silage to generate

biogas through anaerobic digestion

- Unimproved pasture would be used largely for short-rotation willow, grown as an energy crop or for sequestration in the soil as a carbon store.

Dr. Howard Lee comments: "The drive for indigenous food security will overwhelm other projects such as short-rotation biomass, or anything else that requires land for non-food production. This will be a simple fact of life."

Friday 9th July

Sequestration of carbon in soils is the only proven way to draw down CO₂ for permanent storage. This is done in three ways:

1. Incorporation of biochar in soils
2. Storage in standing timber.
ZCB2030 recommends planting 1.37 million hectares of new forests in addition to maintaining the existing 3 million hectares as carbon stores.
3. Storage of long-lasting biomass products in buildings and engineered silos.

The report calculates that by 2030 the net annual emissions from agriculture could be 17 million tonnes of CO₂ equivalent, while sequestration in soils

could amount to 67 million tonnes – a net gain of 50 million tonnes.

Saturday 10th July

The transition to a zero carbon society is heavily dependent on economic incentives. At the international level, a crucial first step is a global agreement to limit temperature rises to 2°C. and to set cumulative carbon budgets to make that goal achievable.

The UK must set a high carbon price to incentivise investment in large-scale renewable technologies and energy efficiency. Public money is needed as a guarantor, while new financial arrangements are needed to attract private money for this enormous investment programme.

Sunday 11th July

Lord, make us instruments of your power to combat evil;
Where there is sabotage of your creation,
Let us be first to oppose it.
Where greed seeks to destroy our moral heritage,
Let us strive to safeguard it.
Where power and money combine to undermine our community life,
Let us hasten to affirm the supremacy of love of neighbour.

Where there is passivity, deference and conformism to giant powers of darkness,
Give us courage to radiate the light of truth. (John of Purton)

Monday 12th July

A report from the Institute of Civil Engineers called "State of the Nation's Infrastructure 2010" finds that elements of Britain's infrastructure are "creaking at the hinges" and need an urgent overhaul to prevent further risks to the environment and economy. "Most of our electricity production is unsustainable. We rely on considerable imports of energy from other countries and our heavily dependent on fossil fuels. . . Much of our housing and office stock is energy-inefficient. Our transport network is not up to scratch. We need to manage the demand for private car journeys and encourage a shift to more sustainable modes of transport."

Tuesday 13th July

The London 2012 Olympic Games have been a catalyst for the transformation of the Lea Valley from a heavily-polluted industrial site into a haven for communities and wildlife. Last year 30,000 tonnes of oxygen-depleting sediment was removed from

the river including 3 tonnes of tyres, 3 cars, 40 motorbikes and 120 shopping trolleys. 95% of the demolition material from the site has been re-used in construction. 90% of contaminated soil has been recovered for re-use. Lord Chris Smith of the Environment Agency said: "We are right behind the ODA in its mission to create an outstanding green Olympic legacy in east London. This is a unique opportunity for sustainable development and I have every confidence that the 2012 Games will set a new environmental precedent in the development of Olympic Parks."

Wednesday 14th July

CIWEM laments the lack of governmental support for environmental education. "Students are future leaders and decision-takers. Environmental education will help give them the skills they need to thrive in the emerging green economy. The annual Stockholm Junior Water Prize attracts thousands of entrants from Russia, Vietnam, France, Italy and South Africa, but only a handful from Britain because of the lack of support. The UK is a leader in the environmental sciences and is home to some of the world's leading

scientists, so why have we lagged behind other countries in promoting environmental education?"

Thursday 15th July

The uptake of electric vehicles depends on the availability of charging stations. Europe's first fast charging station has been opened at Leeuwarden in The Netherlands. It can fully charge 9-person taxi-vans in 30 minutes, allowing them to drive 100 kms. or more on a single charge. However in Israel a company called Better Place is building a network of service stations where used batteries can be exchanged for fully-charged ones. As the upfront cost of the battery is no longer paid by the car owner, the price of new electric vehicles will be similar to that of petrol-driven cars. In the UK, conversion of all cars and taxis to electricity would require an additional 16% of current generating capacity.

Friday 16th July

A largely-wind-generated electricity supply will generate excess capacity at night when domestic appliances are mostly turned off. Smart chargers can be programmed to re-charge car batteries at night when demand is low. So a large number of electric vehicles

can be accommodated without building more power stations. Also, the use of wind-powered generators to re-charge vehicle batteries enables wind power to compete financially with fossil fuels.

Saturday 17th July

This weekend at the Hayes Conference Centre, Swanwick, a conference takes place on "Our Daily Bread: Food Security, People & Planet" organised by the National Justice & Peace Network and Lancaster Diocesan Faith & Justice Commission. Speakers include Vandana Shiva, the Indian ecologist, Shay Cullen SSC from the Philippines and Alistair McIntosh, writer on justice and environmental sustainability. The conference explores the food system and new initiatives to help us re-connect with sustainable agriculture and food. Cost: £124 for the weekend. Booking forms available at

www.justice-and-peace.org.uk/documents/CONF2010BOOKINGFORM.pdf

or from www.christian-ecology.org.uk/JP-CONF2010BOOKINGFORM.pdf

Sunday 18th July

Divine master, grant that we may not so much seek to live a quiet life as to join with others to enhance life, not so much to grab as to give, not to evade our social duty as to shoulder it, and not so much to fear power as to strive valiantly with others that it should serve worthy ends (John of Purton)

Monday 19th July

Built-in obsolescence has over many years led to the premature scrapping of serviceable machines of all kinds. If cars were leased instead of sold, and then priced per mile, incentives for durability would fall on the leasing company. If it was also the manufacturer, it could build durability into its cars. Riversimple has developed cars which are expected to last 20 years instead of the usual 10. After 3 years of use, the user could either return the car or renew the lease. This business model rewards longevity and low running costs rather than obsolescence and high running costs.

Tuesday 20th July

ZCB2030 examines some common reactions to climate change, such as: "I don't believe it", "It won't affect me", "It's too late", "It's other people's fault",

"Others aren't doing enough", "Other things are more important" etc. It suggests that community-led initiatives (such as Transition Towns) are more likely to be successful than schemes imposed from "outside". People trust friends, neighbours, social networks, local councils and independent agencies more than officialdom. I. Preston of the Bristol Centre for Sustainable Energy comments, "Community-driven activity is heavily reliant on volunteer time and a few local enthusiasts, the danger being that, without the required support or visible achievements, activity and interest will wane. Measurable outputs may require support – financial or otherwise – from a higher level."

Wednesday 21st July

While policymakers can remove structural barriers to action on climate change, there are many personal and social mechanisms which lock us into unsustainable living. People need reassurance that change can lead to a better life. Example and communication can limit the anxiety people naturally feel towards change. Wide public debate on the value of perpetual economic growth – even if that were possible – and the validity of

traditional ideas of “progress” could also help to change attitudes.

Thursday 22nd July

Reducing Deforestation & Forest Degradation (the REDD proposals) is key to protecting the forests on which the world’s climate largely depends. Last month in Oslo ministers from 50 countries pledged \$4.5 billion for the period 2010-2012 to support measures to reduce deforestation in developing countries. Norway alone has pledged \$1 billion over 5 years for reducing deforestation in Indonesia, and further annual payments to Brazil and Guyana to protect their forests. The Prince’s Rainforests Project is keeping a watching brief as governments and NGOs take the REDD project forward.

Friday 23rd July

This weekend at Hilfield Friary, Dorchester, explores the links between peace and the environment from a Christian perspective. It will be led by Andy Lester, Conservation Director of A Rocha UK, and the Rev. Simon Bignall. The two days will include walks, talks, meditation, exercise and quiet. For details and booking information go to:

www.hilfieldfriary.org.uk

Saturday 24th July

Soy cultivation has been linked to a massive loss of natural habitats in South America. Last month the Roundtable on Responsible Soy Production adopted voluntary sustainability standards to ensure that soy production will be done in an environmentally sound and socially responsible way that avoids clearance of forests and areas of high conservation value. Now, says WWF, the RTRS must finalise its certification system to establish methods of tracing soy.

Soybeans are used to produce edible oils, feed for cattle, pigs, poultry and fish, plus the production of biofuels. Global demand is expected to double by 2050.

Sunday 25th July

Deliver us, loving Father, from the worship of power: power over nature, power over men. Save us from the worship of science, so that, acknowledging the God-given gifts of scientists, we may be spared from the abuse of their discoveries. Free us from false hopes and misplaced trust, so that in you alone we may find our hope and salvation.

Monday 26th July

The Government has authorised trials of GM potato crops in Norfolk, despite the 2008 IAASTD Agricultural Assessment which saw no clear role for GM crops in feeding the world. In South America vast GM soya plantations are devastating farming communities to provide animal feed for UK farms. A GfK/NOP survey for Friends of the Earth reveals that 2/3rds of people want GM crops to be kept out of the food chain and 89% want GM foods to be clearly labelled by food retailers. Meanwhile ASDA has quietly abandoned its commitment to GM-free eggs and poultry.

Tuesday 27th July

Richard Ward, chief executive of Lloyds of London, has stated that insurance claims arising from the Deepwater Horizon disaster could reach \$600 million. He asks: "Are the environmental and economic costs of the quest for finite and hard-to-reach fossil fuels proving too much? . . . A transition to a more resilient energy system could transform our economy, just as coal did two centuries ago. . . This is a precious opportunity for economies edging out of recession, as those countries that deliver the most

efficient low-carbon energy systems will export their skills and technology."

Wednesday 28th July

The Chancellor, in his budget, confirmed the creation of a £2 billion green investment bank, but left it till the autumn to spell out the details. Richard Gledhill of PriceWaterhouseCoopers said: "The delay means that it will be 2011 at the earliest before concrete commitments are made to low-carbon infrastructure projects and several years before such projects are actually generating electricity. This will put even greater pressure on the UK's ability to meet its target of 15% renewables by 2020."

Thursday 29th July

The National Grid has estimated that nearly half the residential gas demand could be met from biogas, using anaerobic digestion (AD) of wet biomass such as animal dung, sewage, food waste and grass. Inside the digester, micro-organisms convert the mix into methane and carbon dioxide. The methane is then used in place of natural gas. However, food waste is better used for animal feed and compost, though EU regulations currently limit its use as animal feed.

A new AD plant at Barkip in Ayrshire will process 80,000 tonnes of organic waste a year, generating 2 MW. of renewable electricity.

6.3 million lofts with little or no insulation. Remedying this must be a top priority.

Friday 30th July

Swindon is considered "seriously water-stressed" by the Environment Agency. Its people use on average 164 litres per person per day compared to the national average of 148. Save Water Swindon is a WWF/Waterwise/Thames Water initiative aimed at saving 20 litres of water per person per day and so reducing water and energy bills by £100 a year. The campaign highlights simple ways to save water as well as offering residents a free home makeover to make their home more water-efficient.

Sources:

ZeroCarbonBritain2030
CIWEM Business Briefing
www.edie.net

Saturday 31st July

20% of domestic carbon emissions come from heating water, 53% from space heating and the remainder from electric appliances. Under the Government's Strategy for Sustainable Construction, new homes must be zero-carbon from 2016. But the largest decrease in emissions will come from refurbishing existing homes. In 2005 there were over 9 million uninsulated cavity walls and

Additional Prayers

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

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Picture on front cover

Foxglove and Bee by Poppy Pickard

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