

year's fourteen awards out of the 240 entries include projects for sustainable building materials, community energy, green investment, tackling fuel poverty, introducing charging points for electric vehicles, solar energy in rural Africa and sustainable agricultural technologies. A special Schools category of awards aims to educate young people about possible solutions to climate change and to encourage energy-saving habits that can last a lifetime. For details of the 2014 awards and the thinking behind them, go to: www.ashden.org

Sources:

"Climate Change and Human Development" by Hannah Reid
Green Health Watch magazine
www.edie.net

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: Giant Fennel by
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Prayer guide for the care of creation

September 2014



"God disciplines us for our good, that we may share in his holiness. No discipline seems pleasant at the time, but painful. Later on, however, it produces a harvest of righteousness and peace for those who have been trained by it. Therefore strengthen your feeble arms and weak knees! Make level paths for your feet, so that the lame may not be disabled, but rather healed."
(Hebrews 12.10-13)

"... But he said to me: 'My grace is sufficient for you, for my power is made perfect in weakness.'
(2 Corinthians 12.9)

"The work of praying is prerequisite to all other work in the kingdom of God, for the simple reason that it is by prayer that we couple the powers of heaven to our own helplessness."
(O. Hallesby)

Monday 1st September

Carbon dioxide concentrations in the atmosphere are now at record levels unseen over 800,000 years. The Chairman of IPCC, a panel of the world's top climate scientists, has warned: "Nobody on this planet is going to be untouched by the impacts of climate change." The changes now seen spell death, poverty and suffering for millions – especially for people who bear little responsibility for climate change – and yet governments still vacillate. There are solutions, but they need to be scaled up globally, and soon.

Tuesday 2nd September

Twenty global corporations including Kellogg have set goals to cut greenhouse gas emissions and source sustainable palm oil in response to over 150 shareholder resolutions. In the past year, suppliers of more than 55% of the world's palm oil have committed to deal only in 100% deforestation-free palm oil. Colgate-Palmolive, after consultation with Walden Asset Management, came out with a commitment to reduce their carbon emissions by 25% compared to 2002 and 50% by 2050. The president of Ceres, which directs the Investor Network on Climate Risk,

said: "The successes this season show that when investors set the bar high, the companies strive harder to integrate sustainability into their business practices. These often help companies to build a positive reputation and achieve high returns on their greenhouse gas reduction initiatives."

Wednesday 3rd September

China is likely to become the world leader in renewable energy. It currently generates 75 gigawatts of electricity a year from wind power and aims to raise this to 200 GW. by 2020. All EU countries combined generate just over 90 GW. a year from wind. The Massachusetts Institute of Technology calculates that China, by producing one wind turbine every two days, and with its geography and wind patterns, could be more than self-sufficient in electricity by 2030. Plans are afoot to transport electricity to its cities via the national grid by building high-voltage direct-current transmission lines across the country. HVDC lines already carry 19.8 GW. of electricity and are planned for a further 36.8 GW.

The conviction that development is dependent on global economic growth is a major driver of the destruction of the natural environment. It is as if we hope that by turning natural capital into financial capital we can somehow disengage ourselves from our dependence on the natural environment and the ecological limits of our world.

What kind of development is it that potentially bankrupts its own life-support system? What kind of meaningful development is possible if that life-support system is chronically compromised?

Sunday 28th September

Sovereign Lord of all nations, we pray for all who are called to leadership in the affairs of the world. Give them the vision to see far into the crucial 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 your Son our Lord.
(Basil Naylor)

Monday 29th September

The likely increase in aircraft movements, with associated noise and pollution, is causing increasing concern. A proposed 91 metre long airship called the Airlander has attracted a £2.5 million Government grant to fund research into more energy-efficient and quieter planes. 60% of the Airlander's lift comes from helium, the rest from the unconventional shape of its hull. This makes it faster and more manoeuvrable than a conventional airship and far more fuel-efficient than a cargo aeroplane. In addition:

- They do not need runways, but can land in any open space larger than 200 metres in diameter
- They do not burn fossil fuels, so do not emit air pollution or high-altitude carbon gases or water vapour
- They are almost silent, relieving people living near airports of noise pollution.

Tuesday 30th September

For 14 years the Ashden Awards for Sustainable Energy have been encouraging the spread of renewable energy projects across the globe. This

minibuses have replaced 325 polluting vehicles, and an urban reforestation programme has planted 232,748 trees to help reduce local flooding and the urban 'heat island' effect. The reforestation programme has saved 607,846 tons of CO2 emissions, while changes in waste management have saved another 127,175.

Thursday 25th September

The Scottish Government's new Marine Litter Strategy contains 40 proposals to tackle coastal and marine litter. Environment Secretary Richard Lochhead, said: "Scotland's marine environment is one of our greatest assets. A staggering amount of discarded materials – particularly plastics – wash up on our beaches every single day. It is dangerous for our marine wildlife, damaging and costly for our fishing fleet and an unnecessary blight on our wonderful beaches, which are enjoyed by thousands of visitors from home and abroad." Marine Conservation Society manager Calum Duncan added: "The strategy incorporates some MCS recommendations such as extending Port Waste Reception Facilities to include fishing vessels, expansion of the KIMO Fishing for Litter initiative, encouraging alternatives to plastic

micro beads in personal care products and highlighting the need to tackle sources of sewage-related debris."

Friday 26th September

About 60% of the world's building stock will be built or rebuilt in urban areas by 2030. Architects representing 124 countries have signed up to a global commitment to eliminate CO2 emissions in the built environment by 2050. By signing up to the 2050 Imperative, member organisations are charged with promoting the planning and design of carbon-neutral cities, towns and new buildings by 2050. They will also help to develop tools to deliver low-cost on-site renewable energy and natural resource systems such as passive heating and cooling, water catchment and storage, solar hot water and daylighting.

Saturday 27th September

Lord Adair Turner, former chairman of the CBI, the Financial Services Authority and the Committee on Climate Change, has said: "We should . . . dethrone the idea that maximising the growth in measured prosperity, GDP per capita, should be an explicit objective of economic and social policy."

Thursday 4th September

From January to March, according to figures from the Department of Energy & Climate Change, 19.4% of all electricity used was generated from wind power and other renewable sources. The power produced was enough for 15 million homes during that period. However, the data also show that in 2013 only 5.2% of total energy consumption (including heat and transport) came from renewable sources – well short of the EU target of 15% by 2020. Last year, UK electricity generated from offshore wind was up by 52% over 2012 and that from solar PV up by 51%.

Friday 5th September

Community-owned green energy projects are key to breaking the dominance of the "Big Six" energy suppliers and Ed Davey, the Energy Secretary, has called for "a community energy revolution." Yet within six weeks the Financial Services Authority has blocked several new applications by energy co-operatives on the ground that they would not have enough member participation, despite have already authorised similar schemes. Many energy co-ops are too small to sell electricity direct to their members, so they must sell it to the national grid

and divide the profits among their members. A spokesman for the DECC said: "We are aware of the matter and have met with the FCA to ensure that the right balance is struck between member protection and realising the enormous potential of community energy."

Saturday 6th September

Dozens of cities, institutions and investors are taking their money out of fossil fuel companies after the launch of a divestment programme in the USA. Similar campaigns were used to hamstring apartheid South Africa and tobacco companies, but this one is happening faster than either of those. The movement includes former vice-president Al Gore, who says that fossil fuel companies are overvalued because they cannot burn the assets they own if the world is to avoid dangerous climate change. "Investors have so far been slow to appreciate the implications for the carbon-intensive assets in their portfolios."

Sunday 7th September

Loving Father, you have given us matchless skill in the realm of science and technology. Help us to understand that you alone are the

source of all truth and understanding. Let us never be blinded by the lure of the market place or tempted to put at risk the lives and health of our fellow-humans. Watch over our motives, dear Father, that we may ever give prime place to the furtherance of your kingdom. This we ask in the Name of your Son, who died that we might live.

Monday 8th September

The River Ganges is the source of life for hundreds of millions of people. 70% of its summer flow comes from melting ice and snow, but the Himalayan glaciers which supply this flow could, according to some, lose as much as 80% of their surface by 2035. 80% of China's 46,377 glaciers are in retreat. In western China 12% of water discharge is glacial meltwater which provides water for 25% of China's population in the dry season. Water run-off from the glaciers will likely peak between 2030 and 2050 and then gradually decline, ultimately leading to exhaustion of glacial water supply and a permanent reduction of water availability for agriculture and human consumption.

Tuesday 9th September

Lakes often form at the front of glaciers, trapped by natural dams of moraine and ice. But as temperatures increase, so accelerating glacial melt and water volumes, the dams can break, causing devastating floods. In 1985 a glacial lake in Nepal flooded, causing water and debris to flow 90 kilometres down rivers, leaving a trail of destruction. Some twenty of Nepal's 2,323 glacial lakes are now in a dangerous state. Recent melting of glaciers in Pakistan's Hindu Kush mountains caused sudden flash floods with massive destruction of crops, shelter and lives in areas not historically prone to flooding. While single events cannot be attributed to climate change, we know that climate change will increase the likelihood of them happening over time.

Wednesday 10th September

Our incessant search for new sources of energy has repercussions above all on poor communities. The world's biggest open-pit coal mine is the El Cerrejon Norte mine in Colombia. It measures 31 by 5 miles and is constantly expanding and swallowing villages in its path. It now touches the

bear witness, by our example, to our resolve to amend our lives, so that others may take heart and act accordingly.

Monday 22nd September

A Transatlantic Trade and Investment Partnership (TTIP) is being negotiated between the USA and the EU which, if agreed, would transfer key powers from democratically-elected governments to multinational corporations. Current proposals would:

- Allow corporations to sue governments over decisions (past, present and future) that could harm their profits
- Reduce EU environmental regulations to US levels, allowing a US fracking boom throughout Europe
- Allow corporations to frustrate governments that wish to leave fossil fuels in the ground
- Reduce EU food safety standards to the level of current US standards, so removing restrictions on GMOs, pesticides and hormone-treated beef.

For more information on the proposed TTIP go to www.noTTIP.org.uk

Tuesday 23rd September

A one-day climate summit hosted by the UN takes place today in New York. Leaders in politics, business and civil society meet to chart a new course of action on climate change. There will be announcements on agriculture, energy, forests, cities, finance, pollutants, resilience and transport. Secretary-General Ban Ki-Moon said: "I have invited leaders from governments, cities, business, finance and civil society to showcase what they are doing to promote the transformative change we know we need. The world needs to see what countries are already doing to reduce greenhouse gas emissions. Solutions exist, and we are already seeing significant changes in government policies and investments in sustainable ways of living and doing business."

Wednesday 24th September

Mexico City, with over 18 million inhabitants, has been infamous for its air pollution. Now, under its 2008 Climate Action Programme, all businesses with more than 51 people have to use solar-powered water heating systems. Its Ecobici public bicycle system has over 35,000 registered users. Energy-efficient

vulnerable residents, cutting down trees that might fall on houses, checking reservoir walls and dams, cleaning wells, identifying refuges etc. Aid donors, rather than focusing exclusively on the role of technology, need to promote disaster responses at local level by supporting community coping strategies. The benefits stretch far beyond the immediate aim of tackling climate-driven disasters.

Friday 19th September

According to Greenpeace, deforestation in Brazil accounts for about 75% of the country's carbon emissions and still continues at a rate of 6,450 sq. kms. a year – the equivalent of 2,475 football pitches every day. About 80% of the logging is illegal. Most of it occurs to expand soya plantations, which now total an area the size of Great Britain. 97% of the world's soya production is fed to livestock. The soya industry is dominated by three conglomerates, Archer Daniels Midland, Bunge and Cargill, who control, not just the agriculture, but the processing, transporting and retailing.

Around 350 million of the world's poor depend on forests for their homes, livelihoods and energy supply.

Saturday 20th September

Every hectare of forest contains around 200 tonnes of carbon. Countries with intact tropical forests could be granted carbon credits for any forests saved from destruction. These credits could be traded on international markets, so giving tropical countries and landowners an incentive to keep their forests intact. One hectare of forest might cost \$300 to clear for pasture and then be worth \$500 to its owner. At current market values for carbon, the same hectare of forest, if left intact, could be worth thousands of dollars. The Coalition for Rainforest Nations has called for this issue to be debated at international level. There are challenges – such as how to monitor the system in remote areas such as the Amazon, where law enforcement and land tenure can be precarious, but there seems to be no better way of valuing the forests that the world desperately needs if it is to combat climate change.

Sunday 21st September

Dear Father, we pray, each one of us, for an honest appraisal of our own lifestyle, that we may admit, to ourselves and to you, all that we are contributing, directly or indirectly, to the pollution of your world. Help us to

reservation of the indigenous Wayuu people. It is operated by a consortium owned by Anglo-American, BHP Billiton and Glencore International. The surrounding vegetation is contaminated with coal dust and local children suffer from respiratory problems and malnutrition. Coal, when burnt, produces even more carbon dioxide than oil and gas.

Thursday 11th September

The \$3.7 billion Chad-Cameroon oil pipeline project involved the drilling of 300 oil wells in the south of Chad and the construction of a 1,070 km. pipeline through Cameroon to the Atlantic, passing through rainforests, Pygmy territories and major food- and cotton-producing areas. The project is managed by ExxonMobil supported by Chevron and Malaysia's Petrobas. Thousands of people have had their homes expropriated and crops destroyed without adequate compensation. As the pipeline cuts through Cameroon's coastal rainforest, new roads have facilitated illegal logging and poaching. It traverses several major rivers where construction has caused oil spills and polluted the water system. The influx of migrant workers has led to a massive increase in prostitution and

associated diseases including HIV/AIDS. According to the World Health Organisation " It appears that in this project decisions were based largely on profit and cost considerations, giving only passing attention to social and environmental aspects, and little or no decision-making power to the affected populations."

Friday 12th September

84% of Brazil's electricity is generated by large dams, whose construction has caused the loss of over 34,000 sq. kms. of productive lands and forests, and forced people from their homes. New dams are proposed for the Madeira and Xingu rivers which would drown areas of great biodiversity and displace many indigenous people. Research by the University of Campinas outlines an alternative future for Brazil's power sector by 2020 without increasing social and environmental impacts, while cutting its national electricity bill by \$15 billion and creating 8 million new jobs. The research proposes increased energy efficiency and doubling the use of small- and medium-scale renewable energy (wind, biomass, solar and small hydro). The reliability of the electricity grid would be improved by a

move away from centralised systems, so increasing industrial efficiency while reducing transmission and distribution costs. Carbon emissions would be stabilised at 2004 levels, equivalent to avoiding 413 million tonnes of CO2 emissions over 15 years.

Saturday 13th September

Our dependence on fossil fuels makes no sense considering that renewable energy is superabundant and can provide a path for human development and an exit strategy from the multiple problems of fossil fuel addiction, only one of which is global warming. Small- and medium-scale applications of renewable energy are well-placed to improve the lives of the 1.3 billion people who have no access to electricity, most of whom live in rural areas remote from national grids. At present they have no choice but to exploit fragile ecosystems to meet their energy needs, ultimately undermining both the fuel source on which they depend and the rich diversity of plants and animals that live there.

Sunday 14th September

Give us courage, Lord God, to stand up and be counted,

To stand up for those who cannot stand up for themselves,

To stand up for ourselves when it is needful for us to do so.

Let us fear nothing more than we fear you.

Let us love nothing more than we love you.

Let us have no other God before you, whether nation or party or state or church.

Let us seek no other peace but the peace which is yours.

Make us its instruments, opening our eyes, our ears and our hearts, so that we should know always what work of peace we may do for you.

(Alan Paton)

Monday 15th September

44.5 million people in Ethiopia have no access to safe drinking water. As a result, more than 33,000 children die from diarrhoea every year before they reach their 5th birthday. At the village of Gellabo, where heavy rainfall from March to May is followed by a long, dry season, WaterAid tested a local spring for contamination, capped it

and fitted a 25 cu. metre tank to prevent access by cattle. 21 solar panels were fixed on the tank to power a pump, which pumped the water 120 metres uphill to a reservoir. Overground pipes were laid to pipe the water to new taps in the village. Most of the work was done by the local community supported by the Ethiopian Evangelical & Social Services Commission. Local women have been taught plumbing skills and given tools and spare parts, and a local weaving and sanitary pad production business has been set up to pay for the system's upkeep.

Tuesday 16th September

The Diocese of London's Climate Action Programme is to be re-launched at 6-8 pm today in the Wren Suite at St. Paul's Cathedral. Before this, at 3.45, there will be a special tour of parts of the roof with architect Oliver Caroe to view the Cathedral's plans for water recycling and other measures. To book a place, please email Brian Cuthbertson at brian.cuthbertson@london.anglican.org For more information go to: www.london.anglican.org/articles/modelling-the-new-creation

Wednesday 17th September

Many of the places worst hit by the 2004 Asian tsunami had been developed for fish farming or tourism. In both cases development required the destruction of coastal mangroves and sometimes of coral reefs. Mangroves provide a variety of goods and services to coastal communities such as protecting inland areas from violent storms and tidal waves, but shrimp farming, encouraged by the World Bank, is stripping away more than half the world's mangroves. Economic gains from shrimp farming have masked the enormous environmental – and ultimately human and economic – costs that countries like Indonesia have suffered. Yet fisherfolk, given the right support, could rehabilitate the coastline and marine fisheries so as to protect them from the storms and floods likely to occur as a result of climate change.

Thursday 18th September

Hurricanes are an annual occurrence in the Caribbean. Every year in May the whole population of Cuba participates in a 2-day training exercise on risk reduction from hurricanes, so as to refresh everyone's memory of their role and to introduce changes, identifying