

www.methodistic.org.uk/climate-action

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Extreme Events



What is it?

Extreme events will be less predictable and more common.

Bigger differences in land, sea and air temperatures create more violent storms, heavier rainfall, higher waves and tides and more intense lightning.

Some areas will see prolonged drought and intense heatwaves and others extreme cold.

Important messages

- wildfires will be larger, more prevalent, harder to contain;
- hurricanes & typhoons more frequent and virulent;
- high temperatures threaten more illness & mortality;
- prolonged floods and droughts from stationary weather patterns; more frequent sea-defence breach,
- erosion and land loss.

What we can do

- reduce carbon footprint;
- learn more and share to help raise awareness;
- be ready to live with extreme events.
 - Iearn practical ways to cool house naturally;
 - beware fire hazards when camping;
 - reduce garden hard-standing.

What to hope in

improved forecast, early-warning and communication systems are reducing fatality levels e.g. New Orleans hurricanes: Ida (2021) and Katrina (2005).

Pray for those experiencing more frequent and extreme events, such as wildfires, floods, drought, and for the communities most vulnerable

Net Zero Carbon



Transpo

orestry/Land

Removed

What is it?

Gases released into atmosphere from human enterprise trap the sun's energy, warming the earth. The effect is measured as carbon dioxide equivalent. Other gases such as methane make a bigger contribution. The planet can only tolerate 1.5°C warming. We must reach zero emission to hold to this.

The pie chart shows which activities cause warming. The white dot shows plantlife removing carbon. Stopping greenhouse gases, means the white dot will cover the pie.

Important messages

- reduce energy demands improve efficiencies, reduce waste;
- need mass investment in renewable energy sources;
- shift from fossil fuels to electrical energy wherever possible;
- energy storage systems essential to balance supply and demand;
- · carbon recovery is important;
- construction, transport & agriculture also high footprint needing action.

What we can do

UK Greenhouse gas production by sector

Electricity &

heat

Buildings

- reduce thermostat to save energy;
- install solar panels;

Other

Waste

Industry

Anufactu

onstruction

Aviation & shipping

From ourworldindata.org

- use electric heating, not gas;
- reduce travel, walk/cycle;
- improve insulation;
- turn lights off;
- reduce meat & dairy consumption, switch to grain-fed;
- switch to electric car next time;
- reduce waste.

What to hope in

 there are known technology innovations to address the majority of causes of carbon footprint – they need policy, taxation and consumer encouragement.

Pray for urgent action and understanding of the need to move to a net zero carbon economy, with a political resolve to drive the necessary policies, backed by clear information and encouragement

Loss of Ecosystems



What is it?

An ecosystem is a complex community of living organisms, supporting the web of life. They are highly interdependent. Species in an ecosystem live in equilibrium together, with balance subject to temperature, landscape, weather, daylight, and local chemistry of nutrients, toxins and minerals. The highest order of organisms in an ecosystem depend on the lowest, which are most vulnerable to climate change.



Important messages

- ecosystems are vulnerable to climate change;
- loss accelerates species extinction;
- retreating high altitude glaciers affects all lower terrains;
- risk of losing arctic sea-ice, permafrost, coral bleaching;
- desertification of arid regions;
- non-native species encroachment;
- seasonal migrations become confused.

What we can do

- encourage wild flowers, insects and birds in your garden;
- when walking/hiking stay on paths;
- avoid peat composts;
- buy ethically sourced foods which are responsibly managed;
- never buy goods from unsustainable sources;
- if you buy carbon offsets, make sure it sustains existing ecosystem;
- support good land management.

What to hope in

 awareness of ecosystem importance is growing, and sustainable products and foods are increasingly available in mainstream stores and local markets.

Pray for an understanding of the threat to species diversity, give thanks for all those striving to protect vulnerable environments, and elimination of practice that damages and exploits resources

Food Sustainability



What is it?

Food inequity is a global problem. 800m people are hungry every day, and 2.5bn don't have access to safe drinking water. 800m people have health issues related to obesity. Population growth makes food shortages worse. Nutritious, healthy diet costs more than "fast food". Climate change affects growing seasons and increases crop-stress. Agriculture contributes 15% of global carbon emissions.

Important messages

- poorest have limited choice and poor access to nutritious food;
- reducing global inequity is important for climate and people;
- poor access to safe drinking water is a major global killer;
- food production is a source of potent greenhouse gases;
- better animal husbandry and diet can reduce footprint by one third;
- dietary choices affect footprint;



What we can do

- reduce consumption of meat and dairy products;
- eat beef less frequently but buy better quality e.g. grass-fed;
- reduce food waste;
- use purchase power to support sustainable farming;
- support water-aid projects to improve access to fresh water;
- don't buy out-of-season fruit & veg;
- support local markets.

What to hope in

new crop strains can be tailored to adapt to changing conditions;
new technologies increase yields and reduce greenhouse gas emissions.

Pray for farmers and fishers for successful and sustainable harvesting, for more environmentally conscious food production, and for more equal sharing and distribution of food and water

Sea and Ocean Effects



What is it?

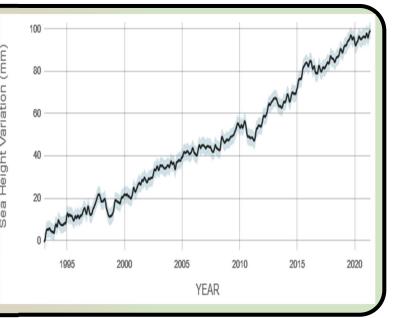
Most of the sun's warming energy is first captured in the seas. Sea-level rises as water warms up. Levels rise further with meltwater from polar ice and mountain glaciers.

Low-lying land will flood, threatening fertile farm lands. Global trade could be affected if major ports flood. Tidal and storm surges will be higher, and coastal defences will breach. Small island nations are under threat.

especially low lying pacific atolls.

Important messages

- over 400m people globally are at risk from coastal flooding;
- sea-levels might rise by up to 6 feet by 2100 if warming not controlled;
- wetlands are important ecosystem under threat from sea-levels, and from encroaching agricultural use;
- mangroves help reduce erosion and coastal flooding;
- city buildings and services can be damaged by water-table changes.



What we can do

- calculate and monitor your carbon footprint to reduce sea level rise;
- plant shrubs and grasses that can resist saltier, wetter and windier conditions;
- invest in mangrove development as a first choice for carbon offsetting;
- support continued aid and investment in small island states currently under threat.

What to hope in

new evidence suggests that sea level rise might help recovery of bleached coral reefs, as deeper water will be cooler and have less direct sunlight.

Pray for those who live in areas threatened by loss of homes and livelihoods as sea levels rise, storms rage and fertile land is lost

Airstreams and Currents



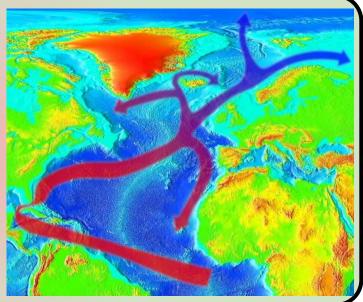
What is it?

The sun's energy concentrates in tropical regions, and is spread to the poles by ocean streams acting as energy conveyor belts. Airstreams high in the atmosphere help spread the energy over land as well as ocean. These air and sea currents drive major weather patterns.

Global warming threatens to change the flow of all these streams, affecting ecosystems and local weather. The UK is particularly vulnerable to change.

Important messages

- local climate strongly influenced by long-range sea currents and high altitude jetstreams;
- changes in flow patterns will cause wild fluctuation in temperate zones;
- impact of clouds on climate change is complex – high wispy clouds reduce warming, dull overcast low clouds will increase warming effect;
- vigilance needed because changes will be slow, but semi-permanent.



What we can do

- this is the most difficult to influence

 beyond the reach of individual nations even;
- make your voice heard about the importance of urgent action to reduce emissions and warming;
- be ready to counter climate-change deniers – conditions in UK may become more wintry if streams fail;
- lobby for changes to legislation to reduce emissions.

What to hope in

streams provide stability, provided that temperature rise is kept low;
cloud engineering offers a "last resort" measure that could reduce warming.

Pray for an understanding of the delicate balance of nature, and its vulnerability to our carelessness, so that we may continue to rejoice in the wonder of God's creation

Reduce Waste & Demand



What is it?

Economic growth relies on consumption, and produces unsustainable levels of waste. Wealthy nations use an average of 13 times more resources than poorer nations, but often rely on poorer nations to process their waste.

Waste is often dumped in landfill, causing pollution, fire and toxicity hazards and releasing potent greenhouse gases. Plastic waste aggregates in oceans and can last over 1000 years without decomposing – the biggest garbage patch is 2.2m km².



Important messages

- raw materials use is unsustainable;
- excess consumption wastes energy in mining, transport, production, waste, travel to market, disposal;
- solutions to climate crisis rely on scarce metals and rare-earths;
- there are 51,000,000,000,000 bits of plastic in the oceans 500 for every star in the galaxy;
 80% of waste is in construction &
- 80% of waste is in construction & production industries.

What we can do

- think twice whether you need something before buying it;
- make your own compost;
- avoid single use plastics;
- reject unnecessary packaging;
- avoid disposable products;
- reuse or repair if possible;
- donate unwanted items for others to use – use local exchange sites;
- if you need to dispose, use the
 - most environmentally friendly way.

What to hope in

 single use products and single wear fashion losing popularity, and growing interest in upcycling, re-use, and development of new sustainable materials.

Pray for understanding and respect that the earth's resources are precious, should be used sparingly and wisely, but give rise to lasting damage when used wastefully

Population & Community

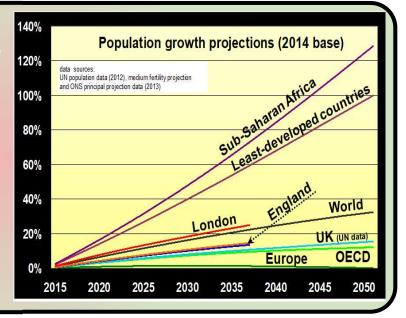


What is it?

Global population grew by 1bn every 12 years to 7.9 bn. Growth is now slowing, but remains highest in areas vulnerable to climate change. Growth is mostly in cities. Without new policies and technologies, new megacities (predicted to be bigger population than UK) will have large footprint in construction, transport, heat management and waste. Poorest are affected most by all aspects of climate change.

Important messages

- global inequity is widened by climate change - poorest are most vulnerable and least able to adapt;
- wealthy countries must lead the way in cutting emissions deepest;
- poorest nations will need support to adapt whilst their economies grow;
- urbanisation is costly for carbon footprint;
- population growth is concentrated in high risk areas.



What we can do

- demonstrate support to maintain international development budgets and close poverty traps;
- show your support for aggressive policies to achieve net-zero;
- encourage investment in new technologies offering solutions;
- call-out popularism and denial;
- be an ally to the marginalised;
- use your purchasing power to support local markets.

What to hope in

recent survey of public attitude to net zero policies shows high levels of support for difficult decisions and positive actions.

Pray to end selfish division pitting communities against each other; for a renewed unity to protect all God's creation, committing to lasting change for equality, mutual respect and understanding

Global Leadership & COP 26



What is it?

The Conference of the Parties (COP) is where the most senior negotiators from 197 countries meet to reach an agreed way forward to address climate change. The Kyoto protocol (COP3) was the first big step in joint action in 1997. The Paris agreement in 2015 (COP21) was the next major commitment. Leaders at Glasgow (COP26) must take the next big step to reach tough, binding commitment towards net zero carbon. The window in which actions can halt warming is nearly closed.



Important messages

- the big themes of climate change can only be addressed together;
- only with head-of-state involvement will binding agreements be made;
- each nation has local priorities and red lines: everyone will have to compromise on important issues;
- leaders will need assurance their painful decisions will be supported;
- In 2020 the doomsday clock was more advanced than ever before.

What we can do

- support campaigns pressing for positive and urgent action for the climate;
- ensure leaders know that you support them to take tough action;
- continue learning and advocate for climate justice with confidence;
- challenge denial and apathy whenever you encounter them;
- encourage new technologies that can combat global warming.

What to hope in

a recent public opinion survey showed strong support for policies needed to drive to net zero, even when they were costly and painful to individuals.

Pray for a successful summit, that the climate crisis may be understood; there will be the political will and global unity to commit to urgent action, that will protect even the most vulnerable

Ways to Be Greener

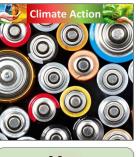








Install a hedgehog tunnel



Use rechargeable batteries



an old

toothbrush



Increase loft insulation

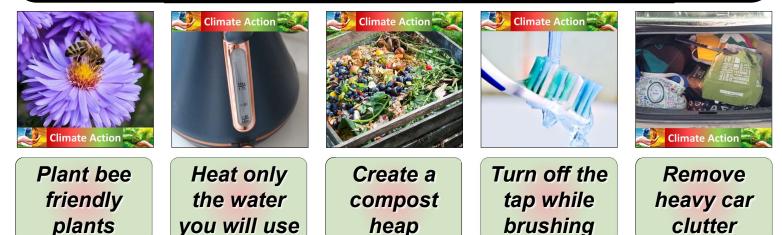


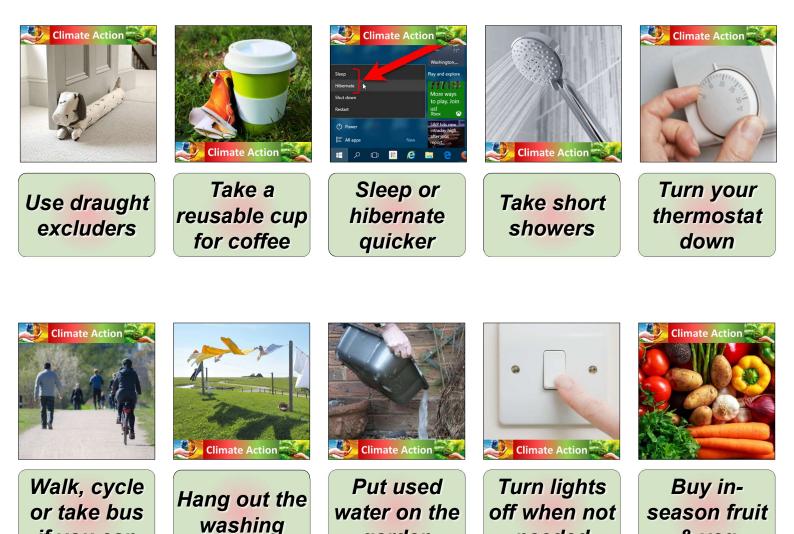


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Ways to Be Greener







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garden

if you can

& veg

needed