



References for AdGreen Training

Module 1: Sustainable Production

Quote, Statistic or Content	Link
Section: Introduction	
How We Made the Cadbury's Gorilla Ad. The Guardian. 7 th Jan 2016	https://www.theguardian.com/media-network/2016/jan/07/how-we-made-cadburys-gorilla-ad
Sony Bravia - Balls – Making of. You Tube. 30 th April 2008	https://www.youtube.com/watch?v=4KPjWZQ1lp0
Behind the scenes of Sony' Bravia's 'Balls'	https://www.thinkbox.tv/creative/behind-the-scenes-of-great-ads/sony---balls/
48% of organisations say they are encouraging or requiring suppliers and business partners to meet specific environmental-sustainability criteria.	gx-deloitte-global-climate-check-report-march-2021.pdf
The number of environmental, social, and corporate governance regulations and standards globally has nearly doubled in the last five years	https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/sustainability/ey-the-future-of-sustainability-reporting-standards-june-2021.pdf
46% of companies have seen improved financial metrics thanks to their organisational sustainability initiatives	gx-deloitte-global-climate-check-report-march-2021.pdf
71 percent of employees and employment seekers surveyed say that environmentally sustainable companies are more attractive employers.	https://newsroom.ibm.com/2021-04-22-IBM-Study-COVID-19-Pandemic-Impacted-9-in-10-Surveyed-Consumers-Views-on-Sustainability
Section: Climate Science	
When was climate change first written about in the press?	https://www.dailymail.co.uk/sciencetech/article-4584444/A-century-old-newspaper-predicted-global-warming-1912.html
Global energy related carbon dioxide emissions totalled 36.3 billion tonnes in 2021, the highest level in history.	https://www.nytimes.com/2022/06/03/climate/carbon-dioxide-record.html
According to the UN, developed nations bear the greatest responsibility	https://www.unep.org/interactive/emissions-gap-report/2020/
The wealthiest 1% of the world's population were responsible for the emission of more than twice as much carbon dioxide as the poorest 50% of the world from 1990 to 2015	https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621052/mb-confronting-carbon-inequality-210920-en.pdf
The richest 1% are those earning more than around \$100,000 a year.	https://www.theguardian.com/environment/2020/sep/21/worlds-richest-1-cause-double-co2-emissions-of-poorest-50-says-oxfam
The wealthiest 10% of the global population, comprising about 630 million people, were responsible for about 52% of global emissions	https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621052/mb-confronting-carbon-inequality-210920-en.pdf
The richest 10% are those earning more than around \$35,000 a year.	https://www.theguardian.com/environment/2020/sep/21/worlds-richest-1-cause-double-co2-emissions-of-poorest-50-says-oxfam
You and I are 1 in almost 8 billion people	https://www.worldometers.info/world-population/



A recent survey of 10,000 people in 10 countries by Avaaz shows that anxiety about the climate crisis is very high in children and young people – and much of this is linked to government inaction	https://secure.avaaz.org/campaign/en/climate_anxiety_briefing_2021/
Healing of the ozone layer through the banning of CFCs.	https://www.bbc.co.uk/news/science-environment-56014092
Front page of The Sun newspaper: Hotter than the Sahara	https://earthbound.report/2022/07/18/reporting-heatwaves-responsibly/
In the battle in our minds between short- and long-term benefits, the former "would tend to win in everyday decisions" that we make on auto-pilot, says Dr de Meyer, a neuroscientist at Kings College London	https://news.sky.com/story/wildfires-heatwaves-and-drought-the-climate-crisis-is-staring-us-in-the-face-but-why-cant-we-believe-it-12655768
In August 2022, the European Commission warned that data suggested "the current drought still appears to be the worst since at least 500 years", with 47% of Europe in "warning" conditions, meaning soil has dried up. The summer heatwave, with many cities climbing above 40c / 104f, plus water shortages, have "created an unprecedented stress on water levels in the entire EU".	https://www.bbc.co.uk/news/world-europe-62648912
In the same month floods submerged a third of Pakistan, with the country's climate change minister Sherry Rehman describing the situation as a "climate-induced humanitarian disaster of epic proportions".	https://www.nytimes.com/2022/08/28/world/asia/pakistan-flood.html
In response, Antonio Guterres, the UN's secretary general, said "Let's stop sleepwalking towards the destruction of our planet by climate change."	https://www.bbc.co.uk/news/world-asia-62722117
All the carbon we currently have on Earth is the same amount we have always had. The carbon cycle is the process in which carbon atoms continually travel from the atmosphere to the Earth and then back into the atmosphere.	https://education.nationalgeographic.org/resource/carbon-cycle
Image of Earth's atmosphere	https://unsplash.com/photos/Q1p7bh3SHj8
As increased amounts of carbon particles are released into the atmosphere, this blanket gets thicker, meaning it's more difficult for heat to escape – which in turn warms up the earth's atmospheric temperature. This is referred to as global warming.	https://education.nationalgeographic.org/resource/carbon-cycle
We can measure CO2 concentrations in the atmosphere going back in time. One way is by drilling down into ice cores and testing pockets of air which were trapped when the ice was formed thousands of years ago.	https://www.antarcticglaciers.org/glaciers-and-climate/ice-cores/ice-core-basics/
This is a complex graph showing how carbon dioxide, temperature and sea level correlate.	https://johnenglander.net/400000-year-graphic-shows-sea-level-temperature-and-co2/
In 2020, for every million molecules of air, 414 molecules were carbon. The previous highest was 280 PPM – and that had been the case for millions of years, before this recent massive spike.	https://climate.nasa.gov/vital-signs/carbon-dioxide/
Trends in Atmospheric Carbon Dioxide	https://gml.noaa.gov/ccgg/trends/
The 1.5 degrees figure was adopted by 196 Parties at COP 11 in Paris on 12 th December 2015, forming the legally binding international treaty on climate change known as The Paris Agreement.	https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
The independent Climate Action Tracker Thermometer shows that we were already at 1.2 degrees of warming in 2021, and current government policies and action set us on track to breach the Paris Agreement goal.	https://climateactiontracker.org/global/cat-thermometer/



An IPCC Special report on the impact of Global Warming of 1.5 degrees Celsius states that ‘overshooting poses large risks for natural and human systems, especially if the temperature at peak warming is high, because some risks may be long-lasting and irreversible, such as the loss of some ecosystems.	https://www.ipcc.ch/sr15/chapter/chapter-3/
Global warming is not a uniform process: some areas, for example at high latitudes (such as the poles) are warming with much more intensity than others – ‘with increases of up to 4.5 degrees Celsius at 1.5 degrees of global warming, i.e. a factor of three	https://www.ipcc.ch/sr15/chapter/chapter-3/
[Tipping points] as Carbon Brief explains: ‘where a changing climate could push parts of the Earth system into abrupt or irreversible change’, such as arctic permafrost loss leading to an ‘abrupt increase in emissions of CO2 and methane through the thawing of frozen carbon-rich soils.	https://www.carbonbrief.org/explainer-nine-tipping-points-that-could-be-triggered-by-climate-change/
Methane is more than 25 times as potent as carbon dioxide at trapping heat in the atmosphere’	https://www.epa.gov/gmi/importance-methane#:~:text=Methane%20is%20more%20than%2025,dueto%20human%20related%20activities
Organisations such as COP...	https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop
...and the IPCC are key to tracking the global race to keep average global carbon emissions from going beyond the critical levels.	https://www.ipcc.ch/
<ol style="list-style-type: none"> 1. CO2 concentration in the atmosphere – remember that line on the graph? Is at it’s highest concentration in at least 2 million years (so that insulating blanket is at its thickest) 2. Sea levels are rising at the fastest rate in at least 3000 years 3. Arctic sea ice is at its lowest level in 1000 years 4. Glaciers are retreating at an unprecedented rate 	https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/
A university of Exeter study suggests that ‘Just as Tipping Points are part of the greatest threat we face – the same logic may also provide the solution’	https://www.exeter.ac.uk/research/tippingpoints/

Section: How Carbon is Measured and Reduced

Ad Net Zero strategy, where the target is to reach net zero by 2030 in the UK market	https://adnetzero.com/
World Wildlife Fund footprint calculator	https://footprint.wwf.org.uk/#/questionnaire
The average footprint globally is 7 tonnes CO2e, but between countries this figure varies hugely, right up to 21 tonnes in North America. This is worked out by accounting for everything we do and buy.	https://howbadarebananas.com/
Count Us In steps	https://count-us-in.com/
According to BAFTA’s albert, in 2021, the average CO2e generated whilst producing 1 hour of television content in the UK was 5.7 tonnes	https://wearealbert.org/2021/09/09/our-2020-21-annual-review-is-out/
Annually released ‘emissions factors’ equate an amount of greenhouse gas emissions for a given activity to a unit that we understand.	https://ghgprotocol.org/calculation-tools



Methodology behind the AdGreen Carbon Calculator	https://weareadgreen.org/carbon-calculator#methodology
'The Carbon Footprint of Everything' by Mike Berners-Lee	https://howbadarebananas.com/
Although there is no 'typical' shoot, an average TV commercial project will generate between 1 and 2 tonnes of CO2e per shoot day	https://weareadgreen.org/faq#carbonf
Using the data from our calculator, we can see that air travel is often the largest generator of emissions on a project.	https://weareadgreen.org/faq#carbonf
1393 cheeseburgers being produced will generate the same CO2e as a business class flight to Cape Town	https://howbadarebananas.com/AdGreen Carbon Calculator
It's very likely we'll see mandatory scope 3 reporting (as well as scopes 1 and 2) coming in as policy for more and more organisations.	https://sphaera.com/spark/scope-3-reporting-requirements-will-bring-big-compliance-challenges/
We can already imagine a future where those servicing advertisers are working to a carbon budget as well as a financial one.	https://ghgprotocol.org/standards

Section: The Advertising Production Industry and its Impact

The UK organisation Clearcast, who clear adverts for broadcast, watched over 57,800 ads in 2021	https://clearcast.co.uk/who-we-are/
The Australian ad clearing organisation, Clear Ads, reviews over 65,000 a year (many of these may be versions and cut downs, so not necessarily original content)	https://clearads.com.au/
In the US alone, it is estimated that 2022 ad spend will exceed \$300 billion, with the global spend to surpass \$700 billion	https://www.forbes.com/sites/bradadgate/2021/12/08/agencies-agree-2021-was-a-record-year-for-ad-spending-with-more-growth-expected-in-2022/?sh=63cfe8a37bc6
The Ad Net Zero Action Plan	https://adnetzero.com/the-ad-net-zero-action-plan/
Operational emissions from advertising businesses, which are estimated to be over one million tonnes per year	https://adnetzero.com

Section: Activity Areas

We have mentioned air travel several times already, but it is important to stress the impact it has.	https://www.bbc.com/future/article/20200218-climate-change-how-to-cut-your-carbon-emissions-when-flying
Flights have a large carbon footprint on a production, and this is why travel and transport is the activity area we always talk about first.	https://www.bbc.co.uk/news/science-environment-56582094
2.4% of global CO2 emissions come from aviation. Together with other gases and the water vapour trails produced by aircraft, the industry is responsible for around 5% of global warming. Just 11% of the global population took a flight in 2018 and at most 4% took an international flight. The shipping and aviation director at the International Council on Clean Transportation (a US-based non-profit) estimates that 3% of the global population take regular flights.	https://www.bbc.com/future/article/20220519-what-if-we-all-stopped-flying



We've already seen companies building virtual production studios to meet the demands of remote production, organisations creating large banks of filmed footage to be recycled and repurposed, and networks of international production partners working together to reduce travel and utilise local knowledge.

<https://weareadgreen.org/resources/case-studies>

According to the UN, the energy supply sector is responsible for approximately 35% of total emissions. Because currently, around 80% of global energy and 66% of electrical generation are supplied from fossil fuels.

<https://www.un.org/en/actnow/facts-and-figures>

A renewable energy tariff doesn't necessarily mean you will use renewable energy directly, as all forms of energy are fed into the grid and used to power your spaces. What it does mean though, is that the energy provider must buy enough renewable energy certificates to match what you use.

<https://www.which.co.uk/reviews/energy-companies/article/green-energy-suppliers/differences-between-green-energy-suppliers-aN19WOB8B2Mc>

LED lighting uses a lot less energy, resulting in less units used or less fuel for your generator, which will also save you money.

<https://www.energy.gov/energysaver/led-lighting#:~:text=Residential%20LEDs%20%2D%2D%20especially%20ENERGY,times%20longer%2C%20than%20incandescent%20lighting.>

The fashion industry (clothing and footwear) produces more than 8% of the global greenhouse gases and 20% of global wastewater annually, with around 30 per cent of online purchases returned and many of those ending up in landfill. This is because it is often cheaper for companies to throw away these items then process them for resale.

<https://www.unep.org/news-and-stories/story/fashions-tiny-hidden-secret>

<https://inews.co.uk/inews-lifestyle/why-fast-fashion-returns-landfill-1781161>

But it is not just fashion that has an impact.

<https://www.un.org/en/actnow/facts-and-figures>

For example, worldwide, glass manufacturing produces at least 86 million tonnes of carbon dioxide every year.

<https://www.nature.com/articles/d41586-021-02992-8>

Every year, an estimated 11.2 billion tonnes of solid waste is collected worldwide, and decay of the organic proportion of that waste contributes to about 5% of global greenhouse gas emissions.

<https://www.un.org/en/actnow/facts-and-figures>

Section: The AdGreen Carbon Calculator

Our FAQs are also available on our website, to support you while creating your projects.

<https://weareadgreen.org/faq>

A link to the quick start guide which will get you started, and includes the how to videos, key terms and further information you need to help you use the tool.

<https://weareadgreen.org/carbon-calculator#quickstart>

We have short, how-to videos available on our website to watch anytime, if you need a reminder.

<https://weareadgreen.org/carbon-calculator#playlist>

This is a quick overview designed to give you a peek into the carbon calculator. If you'd like to see more detail – head over to complete more of our short, focused training modules on data gathering and data entry after this.

<https://weareadgreen.org/training>