

Getting Started with Carbon Emissions

A Beginner's Guide for Sport



Supported by



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1. Introduction

Sport is competition, it's community, intensity, joy, and inspiration.
But all of this depends on a stable climate - and human-made climate change is breaking that stability down.

- Heatwaves, floods, and air pollution increasingly affect pitches, facilities, events, and athlete health.
- Rising energy costs and disrupted supply chains add financial risks.
- Fans, funders, sponsors - and increasingly regulators - also expect action on climate.

This toolkit is designed to help every organisation - from small clubs to major venues - take their first steps in understanding and measuring carbon emissions.

It's not one-size-fits-all. Larger organisations may need a full carbon footprint, while smaller clubs can start with simple actions. Wherever you are, you can make a meaningful difference.

BASIS has published a series of reports analysing the impacts of climate change on sport at various levels.

[Game Changer](#)

[Game Changer II](#)

[Hit for Six](#)

[Hit for Six II](#)

[Rings of Fire](#)

[Rings of Fire II](#)

2. Understanding Climate Change

What's happening?

Climate change is driven by the build-up of **greenhouse gases (GHGs)** such as carbon dioxide, methane, and nitrous oxide. These gases trap heat from the sun in the atmosphere, raising global temperatures.

This “greenhouse effect” is natural, but human activity is overloading the system.

Why it matters for sport



Facilities: pitches waterlogged, courts cracked, events cancelled.



Athletes: heat stress, poor air quality, extreme weather risks.

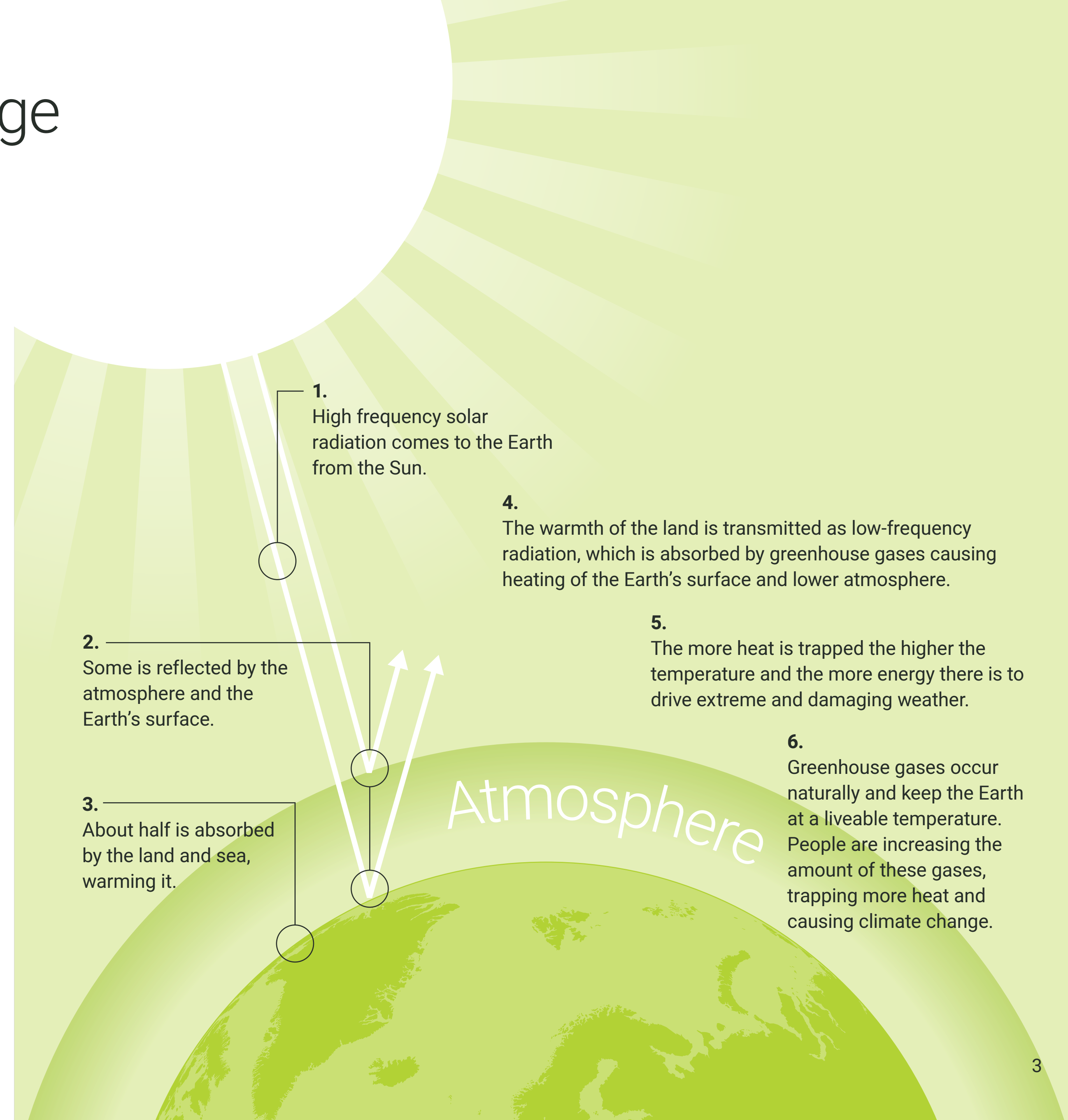


Communities: disrupted grassroots sport, reduced access to healthy activity.



Finances: higher insurance premiums, energy bills, and repair costs.

Sport depends on healthy people and healthy places. Taking action on emissions is about protecting both.



3. What is a Carbon Footprint?

A carbon footprint is the total amount of greenhouse gas emissions caused by an activity, organisation, or product.

We measure all gases in a common unit: tonnes of carbon dioxide equivalent (tCO₂e). This helps us to compare the warming effect of different gases.

The main gases

- > Carbon dioxide (CO₂): from burning fuels like gas, petrol, diesel.
- > Methane (CH₄): from agriculture, waste, and leaks.
- > Nitrous oxide (N₂O): from fertilisers and combustion.
- > F-gases: from refrigeration and air conditioning.

Everyday examples

- > Driving 100 miles in an average petrol car ≈ 0.03 tCO₂e
- > Return flight London-Paris ≈ 0.25 tCO₂e
- > Running a floodlit 3G pitch for a year ≈ 50 tCO₂e

Your organisation's footprint is simply the sum of all these sources.

4. Why Calculate Emissions?

Measuring emissions gives you the knowledge to act.



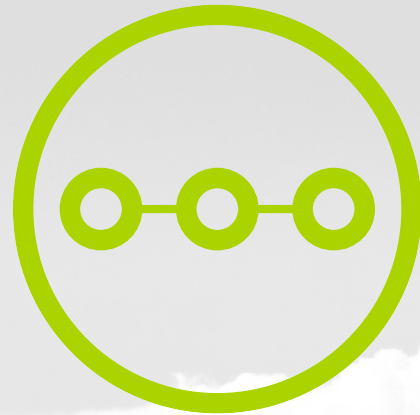
1. Identify hotspots

Find where emissions (and often costs) are highest - such as energy bills or travel.



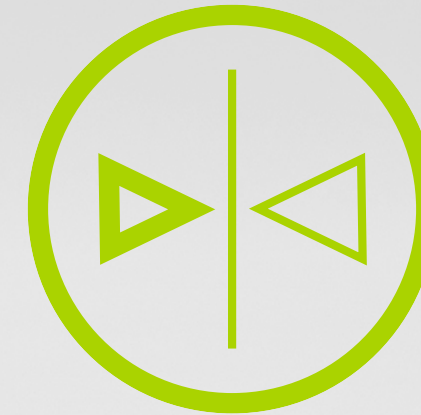
2. Show leadership

Demonstrate to fans, sponsors, and funders that you take climate action seriously.



3. Plan reductions

Set realistic goals, track progress, and celebrate success.



4. Meet expectations

More organisations are expected to report emissions - from government schemes to frameworks like the UN Sport for Climate Action. Sport England's Every Move strategy also highlights sustainability.

Carbon reporting goes far beyond paperwork - it's a tool for smarter decisions and stronger reputation.

5. The Three Scopes

When we measure carbon, we group emissions into three “scopes.”

1

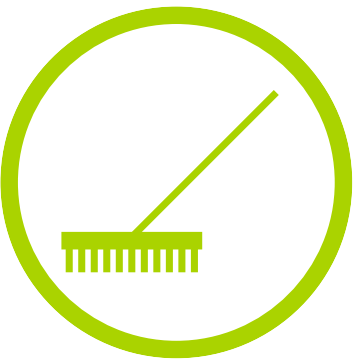
Scope 1
Direct emissions

Emissions from sources you own or control.

For example:



Heat generated from in-house boilers.



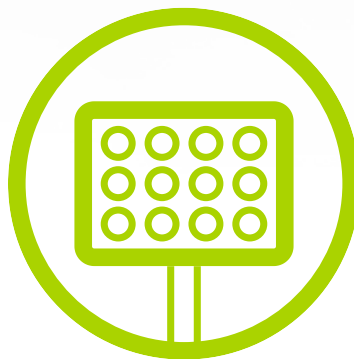
Groundskeeping equipment

2

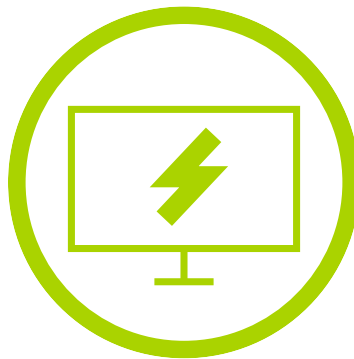
Scope 2
Purchased energy

Emissions from the electricity, heating, or cooling you buy.

For example:



Running floodlights



Powering IT systems

3

Scope 3
Everything else in your value chain

All other indirect emissions - usually the biggest share.

For example:



Staff commuting



Waste

Analogy:

Scope 1 & 2 = the energy you use directly in your office (e.g. the heating your boiler generates - Scope 1 - or the electricity you purchase - Scope 2)

Scope 3 = Everything else that your organisation purchases including office supplies, professional services and food.

Not all Scope 3 categories apply. If something isn't relevant to your organisation you don't have to report against it, but you should say why it doesn't apply to you.

6. How to Measure: Step by Step

The principle of measuring your emissions isn't hard. It's about following a clear process.

1



2



3



4



5

Describe your organisation

Decide what's included -
e.g. office, events, facilities,
vehicles.

Identify activities that release GHGs

Common examples: fuel use,
electricity, staff travel, waste.

Collect data

Start with what you already
have - bills, fuel receipts,
expenses, travel logs.

Input data into the carbon calculator tool

Populate the calculator with
the data you have collected.

[Carbon calculator tool](#)

Report & review

Review the Summary tab
in the calculator and share
results with your board,
staff, or members. Identify
hotspots and plan
next steps.

**Tip: Start with Scope 1 & 2, then add
Scope 3 as capacity grows.**

7. Practical Examples



Small local club



Governing body (office-based)

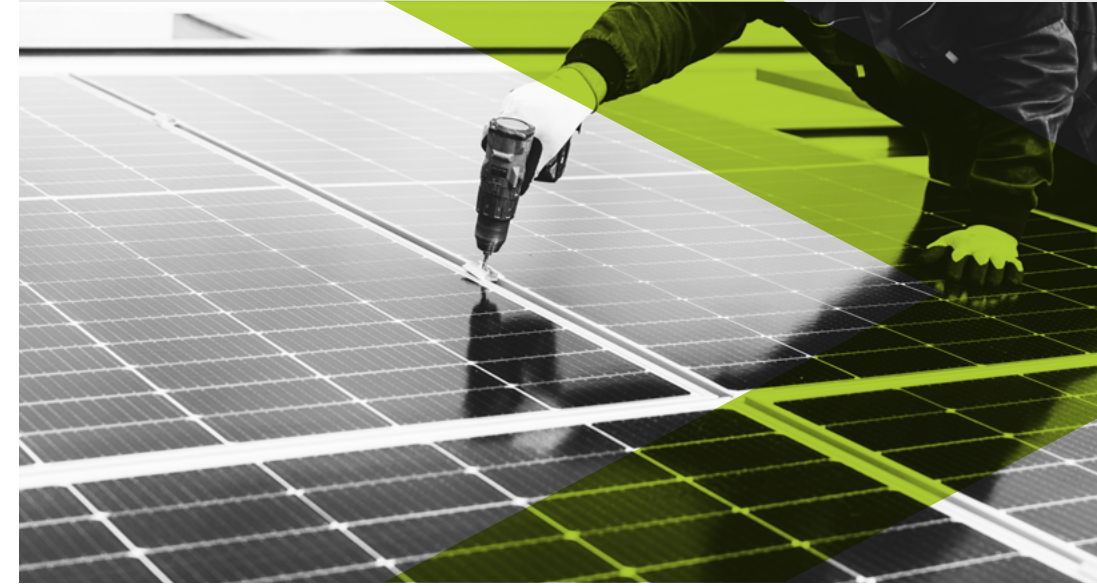


Large venue

Scope 1:	Minibus fuel.	Office heating and hot water (gas boiler)	Onsite boilers and equipment.
Scope 2:	Lighting in the clubhouse.	Office electricity.	Stadium lighting, big screens.
Scope 3:	Waste from events.	Staff travel, IT services, purchased goods.	Catering suppliers, waste, staff / team travel.
Practical focus:	Reduce travel, switch to LED lighting, improve recycling.	Travel policies, green suppliers, energy efficiency.	Renewable energy, sustainable catering, fan travel campaigns.

8. Taking Action Beyond Measurement

Carbon accounting is a starting point - the real goal is reducing emissions.



Quick wins

- Encourage active or public transport for staff and fans.
- Reduce single-use items; improve recycling.
- Cut energy waste with timers, thermostats, and LED lights.

Bigger steps

- Switch to renewable energy suppliers.
- Upgrade to energy-efficient facilities.
- Embed sustainability in sponsorships and procurement.

Cultural change

- Share progress with staff, players, and fans.
- Celebrate success - small changes add up.



9. Resources & Next Steps

- > [Carbon calculator toolkit](#)
- > BASIS Calculating Emissions Training:
In-depth 3-hour workshop provided by BASIS.
- > [UK Government Conversion Factors](#):
Official database for calculations.
- > [Sport England Every Move Strategy](#):
A shared ambition for the sector.
- > [UN Sport for Climate Action Framework](#):
International guidance and collaboration.

You don't need to be an expert to start - and BASIS is here to help you throughout the process.

Measuring your carbon footprint is simply a tool to help you make better choices - for your organisation, your community, and for the future of sport.

**Every step counts. Start small,
keep going, and share the journey.**

10. Case Studies

Sport is inherently competitive, but on sustainability we have always been at our best when we learn from each other - and there are examples of action to calculate and target reductions in emissions throughout the sector:

- > Brentford FC: [View Case Study](#)
- > Active Devon: [View Case Study](#)
- > The Green Runners: [View Case Study](#)
- > British Cycling: [View Case Study](#)
- > Leicester Nirvana: [View Case Study](#)

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