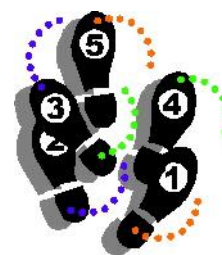




The Old Music Hall,
 106-108 Cowley Road,
 Oxford OX4 1JE
 Telephone 01865 403 334
 Web: www.COINet.org.uk
 E-mail info@COINet.org.uk

COIN is a charitable company, limited by guarantee. Its charitable registration number is 1123315. Its company number is 06459313, and it is registered in England and Wales. It supports initiatives and organizations that increase public understanding and awareness of climate change.

Walking the Walk



Introduction	2
Preparation	2
The Script	3
Introduction	3
Home Emissions	4
Transport Emissions	4
Food Emissions	5
Emissions from Goods and Services	5
Aviation Emissions	6
Reducing Our Emissions	6
Aviation Reductions	7
Lifestyle Reductions	7
Electricity Reductions	8
Heating Reductions	8
Transport Reductions	9
Food Reductions	9
Summing Up.....	10
Frequently Asked Questions	11
Walking the Walk – Summary handout	13
Notes and References	14



Creative Commons Licence
 Attribution Non-Commercial Share Alike

October 2009
www.COINet.org.uk

This licence allows you to remix, tweak, and build upon this work non-commercially, as long as you credit COIN and license your new creations under the identical terms. You can download and redistribute this work and you can also translate, make remixes, and produce new stories based on this work. All new work based on this work must carry the same licence, so any derivatives will also be non-commercial in nature. Further information at www.creativecommons.org

Introduction

Welcome to the “Walking the Walk” training guide!

This document should give you everything you need to run a “Walking the Walk” climate change training session. This session should last 20-30 minutes, and aims to achieve the following things:

- Give participants a very visual and memorable summary of the greenhouse gas emissions of an average UK resident;
- Demonstrate the relative scale and importance of emissions from different sources;
- Show that there are some greenhouse gas emissions that we can directly tackle ourselves, some where government and business need to take primary responsibility, and some where the responsibility is shared;
- Introduce the idea of “outsourced” emissions – greenhouse gases released overseas to manufacture products for the UK;
- Compare the importance of different actions to reduce emissions, and show how a large amount of progress could be made towards emissions reductions targets without having a major impact on our quality of life.

The training is aimed at groups who are already aware of the threat of climate change, and are thinking about what action they should take to tackle it. Alternatively, it could be run as part of a longer training session where the threat of climate change has already been covered. It could also be useful for promoting a particular action or project you want people to get involved in – for example, joining a local car share scheme, attending an anti-aviation demonstration or signing up to a green electricity supplier.

We recommend that the training be followed up with a discussion, where participants decide on actions they can take – individually or as a group – to create significant emissions reductions through behaviour changes, setting up local low-carbon projects, campaigning, or a combination of the above. The focus of this discussion will obviously vary depending on the nature of the group – a residents group is likely to focus on different actions to a group of office workers or a room full of already-active environmental campaigners.

Preparation

By following the enclosed script, you should be able to run this session without too much trouble. It's a good idea to have a practice session with a friend in advance though – especially if you haven't done this sort of thing very much before. Here are some other things you might like to do to prepare for this training session:

- Think about the prior knowledge of the participants – is there anything that will need more (or less) explanation than is given in the script? Add some brief notes to remind yourself of any points that might need extra explanation on the day. Similarly, think about whether there are any areas where the audience are likely to have a special interest (e.g. the staff of a Housing Association might be particularly interested in emissions from buildings) and be ready to give them a special mention during the training. Have a look at the notes and references if there are any areas where you



need a bit more information – but remember, this training is meant to be a simple visual overview of UK greenhouse gas emissions, not a detailed lecture!

- If the session is happening as part of a longer training day, think about how best to fit it in amongst everything else that's happening. Logically, it should probably go after any sessions on climate change science and impacts, but before any action planning discussions.
- You may want to photocopy the one-page handout at the end of this document, to give out to participants at the end of the session.
- Make sure you have enough space in the room you're planning to use. Before the workshop pace out the room with medium paces – about one and a half shoes - 1.5 feet (18 inches) in length. What you will need is a straight run of about 12 paces that everyone can see. Usually across the front of the room works best. Then you will need to have a further 25 paces for flights. To make this dramatic they might loop up the side of the room and even out the door.
- At the start of the training, make sure you are relaxed and calm. Take a deep breath before you start, and try not to rush things – it's better to go at a steady pace, speak clearly, and give people time to digest each point before moving on to the next one.
- There's a "Frequently Asked Questions" section at the end of the script that might help with any other concerns or questions you may have.

The Script

Introduction

Climate change is serious, and is happening now. If we want to avoid its worst effects, we need to make sharp cuts in our greenhouse gas emissions. In 2007, the Intergovernmental Panel on Climate Change (IPCC) suggested that we need to reduce our annual global emissions by between 50 and 85% below 2000 levels, by 2050. Since 2007, scientists have found that climate change is happening faster than predicted, meaning that we need to be thinking about cuts at the deeper end of that scale – so an 85% global cut by 2050, or sooner. Most of this global reduction will need to take place in wealthy countries like the UK, as we are producing more than our fair share of emissions – meaning that the UK's reduction will need to be more like 95%. The British Government has set a target in the new Climate Change Bill that would get us most of the way there – 80% by 2050.

But what do all of these percentages really mean? What does 80% - or 85%, or 95% - of our emissions actually look like? What kind of changes will we need to make to reach these targets?

This exercise aims to make these numbers easier to understand. We're going to demonstrate where the emissions of an average UK resident really come from, by pacing them out across the room. We'll then look at how we can reduce them. I stress that this is an average UK resident because everyone is different, especially in terms of their emissions. Some people have very efficient houses but buy a lot of clothes, some people cycle to work but fly for holidays and so on. So this is an average person.



So to pace this out I need a volunteer.

[Ask them to pace a little to get the pace length right - about one and a half feet long]

As we go each of these paces will represent a tonne of carbon dioxide (and other greenhouse gases in carbon dioxide equivalent) per year. OK - one pace is one tonne. Let's go!

[When instructed in the text, ask the volunteer to take the appropriate number of paces. See the "notes" section for more details on how the emissions were calculated.]

Home Emissions

Let's start with the house.

For a year of heating the house: **One and a half paces**

Now let's heat your water. **Half a pace**

Now you have already passed the average Indian whose total emissions were back there at one and a half tonnes.

Now electricity for your lighting, electronic goods and appliances. **Two thirds of a pace.**

Let's add cooking - how much do you think that is? [people will overestimate] **Two inches**

Note that the biggest item was the heating. Electricity is much less – unless of course you heat your house or water with it. Cooking is very little. We tend to be far more conscious of the things we directly control, like cooking, than the ones that run automatically, like central heating.

Transport Emissions

Now transport.

Average personal car use **One and a quarter paces**

Average public transport **Two inches**

This shows both that public transport is more efficient, but also that people use very little of it. The vast majority of transport emissions are from personal car travel. The average UK person travels 7000 miles by car each year, but only 600 miles by train and 500 miles by bus.



Food Emissions

Now let's think about food.

For an average person on an average diet. **One and a half paces**
[people may be surprised]

There are several reasons why food is so high - any ideas?

[people will probably suggest transport, refrigeration and meat - all of these are important, but one they'll probably miss out is 'nitrogen based fertilisers']

When nitrogen based fertilisers break down in the soil they release nitrous oxide which is a greenhouse gas up to 300 times more powerful than carbon dioxide. This accounts for half of the emissions from agriculture.

In addition to this, meat and dairy have high emissions because they require so much grain: up to 7 tonnes of grain to produce one tonne of beef. Cows and sheep also produce large amounts of methane from their digestive systems. Methane makes up about a third of agricultural emissions.

You have now overtaken the average Chinese person whose total emissions are back there at five and a half paces. China's emissions are rising fast, but on a per person basis they are still a long way behind us.

Emissions from Goods and Services

Now let's look at all the things that people buy, the clothes, car, washing machines, new houses. And let's add the services – banks, shops, nightclubs. These all need to be included in our annual carbon footprint.

If we add together all the business travel, transport of goods, the lighting and heating of offices, shops, and public buildings, all the energy used in factories, and methane emissions from landfill sites, we get this total: **Four paces**

We also need to include everything that the Government is emitting on our behalf - schools, hospitals, council offices, the armed forces, and so on. **One pace.**

The most important parts of this are transport, heating and air conditioning in buildings, and energy use in factories. However, it's worth remembering that this isn't really the full picture, because a lot of manufacturing and heavy industry has been sent offshore. It's now part of the emissions of countries like China. One recent study suggests that if we were to include all the things we import in the UK's emissions, we'd need to add an extra two paces per person. The exact figure is still being debated though, so we won't include it here.



Aviation Emissions

So what's missing? [someone will probably guess]

Yes it's flights. This is the average for a UK person: **One and a half paces.**

This doesn't sound too bad until you consider that this is just the average. A fifth of people in the UK never fly at all, and many people never go any further than the Mediterranean. Other people fly a lot more. Let's see what some serious flying can do to our emissions.

So where shall we send (name of volunteer)?

[Make number of steps based on the chart below (or approximate). These are figures for return flights. Aim to get to Australia or New Zealand once.]

Short haul (paris, UK etc)	<i>half</i>
Eastern Europe	<i>one</i>
East Africa	3
East coast USA	2.5
West Coast USA	4
Middle East	2.5
East Asia	3.5
South Africa	4
India	3
Japan	4.5
Australia	8
New Zealand	9

[Bring the volunteer back to the average emissions mark]

So the average person in the UK has an annual carbon footprint of about 12 tonnes not including imports – but a few long haul flights can easily double that.

Reducing Our Emissions

First of all let's remember:

- the Government's 80% target takes us here (mark 2 and a half paces)
- But if we want to have globally fair reductions we need to get to here (1 pace)

We've got until 2050 to make these cuts, but the sooner we do it, the better our chances of avoiding the worst effects of climate change. So let's start identifying some steps that could get us well on the way!

You'll notice that some of these steps are things that we can do as individuals, and some involve action from Government and business.

[These include steps forwards and back]



Aviation Reductions

First of all – let's talk about flying.
Flights have got a lot cheaper in the last ten years.

But can anyone guess the average income for a person standing at the check-in at a UK airport?

Answer: over £48,000 a year.

The reason for this being so big is that the vast majority of flying is done by the people with the most money. Yes, the cheap flights have made a little flying affordable for poorer people, but really they have made doing a lot of flying a lot cheaper for the wealthy.

So lets say we take out all the excessive flying by rich people. Average people on an average income produce just half a tonne from flights per year. So with people taking, typically, one long flight every few years then...

Take one pace back

But not flying doesn't mean we have to stay at home all the time.
Each year, in the UK, we give tax breaks and subsidies to aviation of over £10 billion a year. We are going to simply shift this to train transport, and thus make it much more affordable.

So, let's invite [volunteer] to take a luxury return train trip to somewhere in Europe.
Where would you like to go? (invite them to choose a destination)
and why not stop over in [somewhere en route-on the way], because on a train you can go anywhere.

Step forward three inches (this will cover just about any destination in western Europe – add an inch for eastern Europe)

Lifestyle Reductions

Let's start by doing some of those things that they always say on the list of ten things you can do to 'save the planet'.

First stop using plastic bags [get people to guess how much] **Back one tenth of an inch.**
Yes - they are polluting and cause lots of problems, but they make a very small contribution to climate change

Second, turn your telly off standby at night **Back one quarter of an inch.**

Thirdly fill the kettle with just the right amount of water **Back half an inch**

This isn't going to get us far. So let's go for something more worthwhile.



Electricity Reductions

You could switch your electricity supplier to a genuine, 100% green tariff – Ecotricity, Good Energy and Green Energy UK are the only companies that currently offer this. **Take two thirds of a pace back.**

However, there currently isn't enough renewable electricity in the UK for everyone to do this. We need to tackle this one at a higher level – we need to stop using coal oil and gas in UK power generation. There's a huge debate to be had about how exactly we should do this – how much we could reduce electricity demand by reducing wasted energy, exactly what mix of wind, solar, tidal, and hydro we should use, whether we use nuclear, whether we produce locally or import from, for example, solar installations in North Africa, and so on. There is plenty of evidence that it's perfectly possible, though, so let's set it as a target – let's have an absolute end to all new investment in conventional fossil fuel plants and a huge restructuring of the UK power industry, to move to zero carbon electricity as fast as possible.

This means that in addition to the half a pace we've already saved from home electricity, we're also going to reduce the carbon from business, government and industry electricity – another **two paces back.**

Heating Reductions

Britain has the oldest housing stock in the world and the highest rates of fuel poverty and winter deaths in Western Europe. So, over the next 20 years, let's bring the whole lot up to current building regulations, with the best modern heating systems and solar hot water panels wherever we can. **One and a quarter paces back**

This won't only help with climate change, it will also mean an end to fuel poverty and deaths, and, according to Oxford University, the creation of 40,000 jobs in the building industry.

And let's use what we have more efficiently too - banning empty dwellings, encouraging people to get a lodger, or supporting old people to move (if they want) into smaller houses. That will also help with the housing shortage in the south.

That's **another quarter pace back**

Of course, we need to do the same thing with offices, shops and public buildings – let's bring them all up to best practice heating standards too, and improve the energy efficiency of factories. **Step back half a pace**



Transport Reductions

OK, it's time to think about driving. But let's not give up on cars - let's just give up sitting alone in a metal box in a traffic jam twice a day, and get to work some other way - bus, train, by sharing a car, or by working closer to home. If you remove the average daily commute you remove one third of all driving **half a pace back**

Some people need to use cars more than others. Let's improve public transport and cycling facilities to the point where most day-to-day journeys can be made by bus, train or bicycle. Some people – old, disabled, or in rural areas – may need to keep their cars, but most people should find that they hardly need them – and think how much cheaper and easier life would be without insurance, road tax, fuel and maintenance costs...

Replacing 1/4 of all the remaining car journeys with bus travel, 1/4 with train travel, and 1/4 by cycling or walking, we'd be able to step back **two thirds of a pace**

But we're not talking about abandoning cars. For example, get a hire car and drive to the South of Spain and back with two friends. **Forward three inches**

Anyone love sports cars? You can still have a spin if you fancy. How about a 30 minute spin on a racetrack in a Ferrari Testorosa **Forward half an inch**

The point of all of this is that it is the habitual day in day out emissions that add up, not the special occasions.

We mustn't forget business and Government – let's shift freight away from road and onto rail and water, and use video and telephone conferencing to cut down business travel. If we cut this travel in half, we can **step back half a pace**.

Food Reductions

First of all we need to sort out the waste problem. A quarter of all food is thrown in the bin. You can stop doing this now, **quarter of a pace**. Then we need supermarkets, shops and restaurants to cut down their food waste too, **quarter of a pace**.

Now let's talk about the food we eat.

By preparing your own food, eating lots of fresh in season local fruit and veg, and cutting back on meat to a small amount once a day or every other day. Doesn't sound too hard.

This diet, often called the "Mediterranean diet", is the recommended diet for a long life, health, heart condition, and avoiding diseases like Alzheimers. Great health and long life? How bad is that?!

We can also reduce emissions on farms, by switching to organic production or using very small inputs of fertiliser and pesticides.

If we do all these things, we can more than halve our remaining food emissions **Back two thirds of a pace**



Summing Up

See how far we've come – nearly nine paces back, to just three and a half tonnes. We have created a lot of new jobs in the UK. And we have not reduced people's standard of life – in fact, in many cases we have improved it, with warmer homes, safer streets, cleaner air, and better public transport. If anybody was thinking climate change means living like a hermit then I hope you noticed that [volunteer] drove a Ferrari round a race track, took a train trip to Europe and drove to Spain for a holiday with friends.

It's worth noting that the cuts were a shared responsibility. There's much we can do ourselves but there was also a need for concerted action by government and business. We haven't quite reached our target yet – but there are lots of major things we haven't done. We haven't introduced any new technologies like electric cars, or made any efforts to reduce consumption of unnecessary goods (for example, by sharing, repairing, and buying second hand). There's still plenty of room for doing more, and we have until 2050 to figure out the final details. In the meantime, there are loads of reductions we could be making right now.

So what are we waiting for?



Frequently Asked Questions

Now you've read through the script, and (ideally) tried it out with a friend, you may have some further questions. Hopefully this section will help you to answer them.

How accurate are these figures?

We've done our best to be as accurate as we can with the data that's available – see the notes available on the COIN website if you want to know where all the numbers came from. However, we've obviously had to be approximate when converting the figures to paces and inches! The numbers should all be accurate enough to fulfil the aims of this exercise – to show how different emissions sources compare with each other, what kind of reductions make the biggest difference, and how most of the changes we need to make to tackle climate change needn't actually be that painful.

Isn't it rude to be bossing a volunteer around at the front of the room?

Make sure you're polite and respectful. Use the volunteer's name and ask them to take the steps forward and backward, rather than demanding it!

What if someone in the audience challenges the figures?

In the first instance, refer to the notes so you can tell them where the figures came from. If they still insist that the numbers are wrong for some reason, let them know that there'll be a handout at the end so they can double-check it themselves later, and maybe try the exercise at home themselves with their own numbers (try to be polite). Feel free to pass any such suggestions back to COIN so we can check our facts. We're pretty sure our numbers are reliable though.

The volunteer's paces are all different lengths – we're not where we should be

When you pace the space out at the start, you may want to lay down a few markers (e.g. five paces, ten paces) as a bit of a guide. If the volunteer's steps are a bit erratic, you can gently guide them to the correct spot. However, the accuracy of the paces isn't really the point – it's more the visual effect of the pacing that's important.

Are you endorsing Ecotricity, Good Energy and/or Green Energy UK

Nope. They are simply mentioned in the script because, at the time of writing (June 2009) our research indicated that they were the only companies who either offer, or are genuinely moving towards, 100% renewable electricity supply. For more information visit www.electricityinfo.org.

I don't have much time for the presentation, can I stop after the first half and leave out the reductions?

Probably best not to – it's really important to include solutions in presentations of this kind, otherwise it's very easy for people to get disheartened by the scale of the climate challenge.



Do I have to stick to the script or can I adapt and change it to suit my own needs?

Of course – it's expected that it will be changed, improved and adapted to different circumstances. We urge a little caution on this, though:

- Be careful not to use judgmental language, or to sound as though you're giving people orders, e.g. "you must stop flying / you're being very wasteful / you don't need any of that rubbish". Studies have shown that people don't respond well to this kind of language – they are more likely to get defensive than to take on board the things you are saying. It's better to give people the facts and some options for actions they could take, and then leave it up to them to decide what changes they want to make in their lives.
- It's also important not to over-emphasise the importance of personal lifestyle changes – this training purposefully divides responsibility for action between individuals, government and business so that participants aren't expected to shoulder the entire burden themselves.
- Also note the importance of showing that a low-carbon society will still be fun and exciting – the Ferrari / European train trip examples are in there to illustrate that a low carbon life doesn't mean living like a hermit.

Are you saying that people shouldn't bother to recycle plastic bags, partially fill the kettle etc?

Not at all – they're worthwhile activities that do lead to reductions in emissions. But these reductions are small and it's clear that far bigger cuts than this are needed. There's little evidence that these small steps lead to bigger steps later – in fact, there's a risk that they may have the opposite effect ("I've been recycling all year, so now I'm entitled to a weekend in Australia"). On the other hand, once people start taking more significant actions, they usually find that all the small things become obvious and instinctive – if you've gone to the trouble to insulate your house and upgrade your boiler, of course you're not going to leave your curtains open all night. If you've joined a local action group to lobby local businesses to turn their lights off at night, it'd seem silly to leave your own electrical appliances on. Once people start taking significant steps, the smaller things tend to become obvious and easy.



Walking the Walk – Summary handout

PART 1 – The Greenhouse Gas Emissions of the Average UK Resident
1 pace = 1 tonne of carbon dioxide equivalent (CO₂e)
Heating house and water: 2 paces House electricity: 2/3 of a pace Cooking: 2 inches (You've passed the average Indian resident = 1.5 paces)
Average personal car use One and a quarter paces Average public transport Two inches
Food for an average person on an average diet. One and a half paces It's high because the fertilisers produce nitrous oxides and because meat production uses so much feedstock, and produces methane (You've passed the average Chinese resident = 5.5 paces)
Business and Government sector – all the goods and services we buy and use Put together the transport, the energy used in commercial buildings and in industrial processes: Four paces And also those used by government including schools and hospitals One pace <i>The emissions overseas from the goods we import is about 2 paces, but uncertain so not included</i>
Aviation for the average UK person One and a half paces But to go to Australia and back is Eight paces
TOTAL: Around 12 tonnes, not including imported goods (except food)
PART 2 – Reducing Our Greenhouse Gas Emissions (↑ = step forward, ↓ = step back)
Most flights are taken by a wealthy minority. So let's say flying is reduced to that for an average person on an average income ↓ one pace But you can still take the train to Venice ↑ three inches (or other West European destination)
Stop using plastic bags ↓ One tenth of an inch. Don't leave your TV on standby ↓ One quarter of an inch Fill the kettle with just the right amount of water ↓ Half an inch Or...switch to a 100% renewable electricity supplier ↓ Two thirds of a pace With the government making it happen, moving away from coal, oil and gas in power generation to give all homes and businesses zero carbon electricity ↓ two paces
Upgrade all UK housing stock to current building regulations, and use existing housing efficiently ↓ one and a half paces Bring every existing commercial building up to current building regs, and improve factory efficiencies ↓ half a pace
Cut out commuting, improve public transport and moving car ownership to a sensible level ↓ One and a quarter paces Hire a car and drive to the South of Spain and back with two friends. ↑ three inches Use remote conferencing, rail and water freight to halve commercial transport emissions ↓ half a pace
Reduce food waste in the industry and at home ↓ half a pace Improve your diet : prepare your own food, eat lots of fresh in season local fruit and veg and cut back on meat to a small amount of meat once a day or every other day. All Veg from low input or organic production ↓ Two thirds of a pace
TOTAL REDUCTION: Over 8 tonnes, without seriously affecting our quality of life. Plenty more that could be done: electric cars, cut unnecessary consumption by sharing, repairing, and buying second hand.



Notes and sources of information

Unless stated, all figures are from 2007 – in most cases this was the most recent year for which data was available. National figures were converted to per capita figures using the official 2007 population estimate of 60,769,000.

Electricity, energy and transport emissions have, unless otherwise stated, been calculated using Defra's standard conversion factors.

(<http://www.defra.gov.uk/environment/business/reporting/pdf/ghg-cf-guidelines-annexes2008.pdf>)

Participants have occasionally queried the figure on subsidies for the aviation sector: "Each year, in the UK, we give tax breaks and subsidies to aviation of over £10 billion a year"

The figure was taken from the report: *Plane Truths: Do the economic arguments for aviation growth really fly?* New Economics Foundation. September 2008. (p15)

The report is available at: <http://www.neweconomics.org/publications/plane-truths>

Detailed notes and references for this document can be found at www.COINet.org.uk.

