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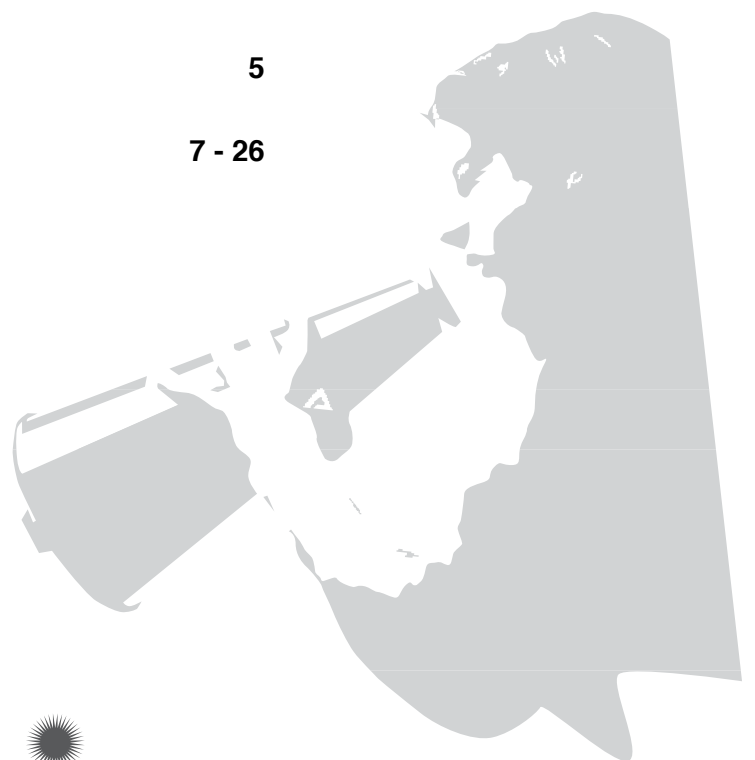
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**CLIMATE CHANGE**



## Climate Change – Get Active!

### Why should I get active on Climate Change?

“This planet came with a set of instructions, but we seem to have misplaced them. Important rules, like don’t poison the water, soil, or air, don’t let the earth get overcrowded and don’t touch the thermostat, have been broken. Buckminster Fuller said that spaceship earth was so ingeniously designed that no one has a clue that we are on one, flying through the universe at a million miles per hour, with no need for seatbelts, lots of room in coach, and really good food - but all that is changing.

You are going to have to figure out what it means to be a human being on earth at a time when every living system is declining, and the rate of decline is accelerating. Kind of a mind-boggling situation... but not one peer-reviewed paper published in the last thirty years can refute that statement. Basically, civilization needs a new operating system, you are the programmers, and we need it within a few decades.

When asked if I am pessimistic or optimistic about the future, my answer is always the same: If you look at the science about what is happening on earth and aren’t pessimistic, you don’t understand the data. But if you meet the people who are working to restore this earth and the lives of the poor, and you aren’t optimistic, you haven’t got a pulse.

What I see, everywhere in the world, are ordinary people willing to confront despair, power and incalculable odds in order to restore some semblance of grace, justice, and beauty to this world. Humanity is coalescing. It is reconstituting the world, and the action is taking place in schoolrooms, farms, jungles, villages, campuses, companies, refugee camps, deserts, fisheries, and slums.”

***From a speech by Paul Hawken, entrepreneur, activist and author, made at the University of Portland on 3rd May, 2009.***

See <http://globalmindshift.wordpress.com/2009/05/21/> for the full text.

**CLIMATE CHANGE**

## Calculating and Understanding your Ecological Footprint

An ecological footprint measures the resources we consume in terms of the area of land they require, and enables us to imagine how many 'Earths' would be required if everyone shared our lifestyle.

This exercise will enable you to estimate your personal ecological footprint by scoring aspects of your lifestyle. Everything we use comes from the land – we grow food, cut down wood, dig up minerals and fossil fuels, and the carbon dioxide we produce needs forests and uncultivated land to absorb it from the atmosphere.

It is intended to be a guilt-free exploration - an audit - please be honest, and don't be critical of yourself or others. In the end it's up to you what you do about it - the footprint calculation will just give you some information.

### Calculating your footprint

The planet we live on is 2/3 covered in oceans, and of the land area, there is roughly 1/3 forests, 1/3 deserts and mountains, and 1/3 that can be used for food production. The productive area is roughly 12 billion hectares, and when divided equally between the world's population, gives about 1.7 hectares of land per person that can be used to provide our needs sustainably. (A hectare is 2.5 acres or 100m x 100m – imagine it as a large football pitch!).

To estimate your ecological footprint, use the scoring sheet opposite, choosing a score in between the high and low scores for each section. When you've finished scoring, add up all the scores. This gives a total score which you divide by 100 to tell you how many planets would be needed if everyone in the world lived like you. (Each 100 points is equivalent to one of the 1.7 hectares fair shares of land – called 'global hectares' because the differences in land have been ironed out to give a global picture.)

For comparison, the average ecological footprint for the UK is 3 planets, for China it is 1 planet, for Angola it's 1 planet, Poland is 2 planets and the USA is 5 planets.

- What have you learnt from calculating your footprint, or what surprised you?
- How do you feel about your score?
- What would you like to change?
- What would need to be changed by government or companies so you could reduce your footprint? eg better public transport, more local food available.

The footprint calculator opposite is based on work by Best Foot Forward:  
<http://old.bestfootforward.com/globalsteps.html>)

Best Foot Forward's site includes some reports, eg footprints of areas of the UK and of the NHS: <http://www.bestfootforward.com/publication/>

Information from the UN Millennium Ecosystem Assessment about how humans are overloading the planet: <http://www.greenfacts.org/en/ecosystems/> <http://www.footprintnetwork.org/en/index.php/GFN/page/trends/> shows how the ecological footprints of various countries and the world are changing over time, and also shows their 'bio-capacity' – the natural resources they have. Also see their Footprint Atlas.

Category	High Score Description	High Score	Your Score	Low Score	Low Score Description
<b>Food</b>	You consume plenty and pay little attention to where your food is produced.	100	<input type="checkbox"/>	32	You eat locally grown vegetarian food and have no food waste.
<b>Waste/ Stuff</b>	You buy lots of new stuff and recycle little or none of your waste.	100	<input type="checkbox"/>	32	You produce very little waste, reuse/recycle everything possible, and often buy second-hand.
<b>Transport</b>	You travel mostly by car.	75	<input type="checkbox"/>	10	You travel mostly by public transport, cycling or walking.
<b>Holidays</b>	You take at least one flight per year.	65	<input type="checkbox"/>	10	You usually holiday close to home.
<b>Heating</b>	You keep your home warm, have poor insulation and high heating bills.	45	<input type="checkbox"/>	10	You use your heating sparingly, have excellent insulation and low bills.
<b>Electricity</b>	You use many standard appliances, often leaving them on.	50	<input type="checkbox"/>	10	You use low-energy appliances and turn them off afterwards. (if you buy electricity from renewable sources, score is just 2!).
<b>Paper</b>	You regularly buy newspapers and new books.	10	<input type="checkbox"/>	5	You share newspapers and usually borrow books rather than buy them.
<b>Water</b>	You take lots of baths use an old dishwasher or a hosepipe etc.	5	<input type="checkbox"/>	1	You take mostly showers and don't use an old dishwasher or a hosepipe, etc.
<b>Add up your scores to give total points:</b>			<input type="checkbox"/>		

**Your score shows how much land is needed to support your lifestyle, and how many planets would be needed if everyone lived in the same way as you (the effects of the wider economy and Government have been added in!).**

### **100 points = 1 planet**

Well done – if everyone lived like you, then humans and animals could live sustainably on our planet.

### **150 – 350 points = 2 to 3 planets**

Your footprint is around the average for people in Europe. Reducing it to one-planet living needs some personal changes and changes by government.

### **350 – 450 points = about 4 planets!**

Your footprint is near the average for people in the USA – this is about ten times the footprint of a person in Bangladesh or Angola (half a planet).

<http://www.ecologicalfootprint.com/> simple online ecological footprint calculator.

<http://www.resurgence.org/resources/carbon-calculator.html> Detailed carbon footprint calculator – enter your fuel bills and car mileage.

## Climate Change in the News – some questions to ask!

The examples below show how varied the news coverage of climate change is – there is much more in the news about it, but it can be hard to make sense of!

### Tony Blair: Copenhagen climate summit must not be about 'percentages'

Speaking in Beijing on Thursday, Mr Blair said leaders should trust in new technologies to put the world on a path to a greener future...

Daily Telegraph 20 Aug 2009

### Copenhagen climate change summit: Up to 1,000 arrested and two Britons deported as rioters clash with police

An estimated 100,000 protesters took to the streets of the Danish capital where a UN climate change summit is taking place as part of worldwide 'Day of Action' to fight global warming. The demonstration was largely peaceful for most of the day...

Mail Online 13 Dec 2009

## THE SINKING SUNDARBANS

With Copenhagen, Obama's cap-and-trade bill, and numerous green policy initiatives coming out of Westminster, climate change is finally receiving the attention it deserves in a policy sense. But the plight of people whose lives have already been devastated by climate change has received surprisingly little attention...

Independent 11 Jan 2010

### Alaskan senator seeks to block EPA's power to regulate greenhouse gases

Barack Obama faced a direct challenge to his government's powers to curb global warming pollution today, just 48 hours after an election upset put the rest of his agenda at risk. In a speech to Congress, a Republican senator from

Guardian 21 Jan 2010

Alaska announced she would use an obscure and rarely used measure to try to strip the Environmental Protection Agency of its powers to regulate greenhouse gas emissions as a dangerous pollutant.

Mail Online 21 Oct 2009

### Climate change advert featuring drowning puppies and dying rabbits probed by watchdog after more than 350 complaints

The Advertising Standards Authority is to probe a controversial Government climate change TV advert which featured a drowning puppy and rabbits dying of thirst...

### Here are some questions to help you think about the news stories you read (on any subject):

- 1 What are the key points made in this article?
- 2 Does the headline reflect the main content of the article?
- 3 Whose point of view or interests are explored?
- 4 Is the article mostly about facts or opinions?
- 5 What assumptions does the article make?
- 6 What did you learn from this article, or what surprised you?
- 7 What questions do you have after reading this article?
- 8 Does this article fit with what you already know, or, if not, what doesn't seem to add up?

## **Making the Links to other Issues**

### **Climate Change and Global justice**

Key resource: World Development Movement's Climate Change Campaign Pack – read the different leaflets online or order the pack at:

<http://www.wdm.me.uk/campaigns/climate/indepth/index.htm>

### **Climate Change and Britain's economy**

Key resource: 'One Million Climate Jobs Now' published by Campaign against Climate Change Trade Union group, and available to view/download or buy at:

[http://www.pcs.org.uk/en/resources/green\\_workplaces/green\\_campaigns/one-million-climate-jobs-now.cfm](http://www.pcs.org.uk/en/resources/green_workplaces/green_campaigns/one-million-climate-jobs-now.cfm)

### **Climate Change and UK Energy use**

Key resource: 'Sustainable Energy – without the hot air' by David J. C. MacKay – a 10 page summary of his book is available online at:

<http://www.withouthotair.com/synopsis10.pdf>

### **Climate Change and Community life**

Key Resource: from Rob Hopkins' Transition Culture blog, 3 different 'takes' on organising a resilient community, at:

<http://transitionculture.org/2009/10/08/james-samuels-6-steps-of-community-engagement/>

<http://transitionculture.org/2009/12/04/what-it-looks-like-when-a-local-authority-really-gets-transition-the-montevoglio-story/>

<http://transitionculture.org/2010/01/15/why-community-might-not-need-organising/>

### **Climate Change and Faith**

Key Resource: Faith and Climate Change blog has many links to faith groups and projects:

<http://faithandclimatechange.wordpress.com/>

See also:

<http://religionsandconservation.wordpress.com/>

<http://akashi.cambridgecarbonfootprint.org/>

### **Climate Change and Food**

Key Resource: 'Manifesto on Climate Change and the Future of Food Security' available at:

<http://www.future-food.org/>

## Reflecting on Climate Change

As obvious as it sounds, climate change affects everybody. But climate change is already having a disproportionate impact on people in developing countries, and it's hitting women hardest. It's not the easiest idea to understand so, in a project called 'Sisters on the Planet', Oxfam have made four short films about women, in both rich and poor countries, who are determined to do whatever they can to put a stop to climate change.

### Sahena's story

Every year, floods cover one third of the land in Bangladesh. Climate change is making the situation worse. The annual monsoon rains in Bangladesh are getting heavier and more unpredictable - recent floods have been the worst in decades, affecting nine million people - but few people can have encountered a force of nature quite like Sahena Begum. Fiercely determined, she is spearheading community efforts to deal with changing weather in Kunderpara village. "Women in my village used to accept disasters as a way of life," says Sahena, "but disasters have always harmed us, and ever since I was a child I've wanted to do something."

See [http://www.oxfam.org.uk/get\\_involved/campaign/climate\\_change/sisters/index.html](http://www.oxfam.org.uk/get_involved/campaign/climate_change/sisters/index.html)

### Exploring our questions

Sahena's story of getting active on climate change is very different to what your own might be. But talking about such stories can help us to understand climate change as a global issue; not just an 'environmental issue' but one that has complex links to many social issues, including relationships of power between men and women.

What questions do you have after seeing the film about Sahena? The deeper questions (the ones that don't have a simple factual answer) can be explored in a group dialogue, or 'enquiry'. Make sure you allow space for people to be heard, perhaps by using a 'talking stick' that people take when they want to speak. It's helpful if each person refers to other contributions, and builds on them. It's also good to say why you think what you think - based on your own experience and learning.

### Speaking up

Your exploration of climate change and its links to other issues may have given you ideas about how you want to 'get active'. Think about what area you'd like to influence, campaign or take action on. What are your aims? What are the key points you'd like to get across in your campaign? This table can help you to plan for the short term and the longer term:

	What I can do by myself	What I can do with others
Short term		
Longer term		

Talk to friends and colleagues to get feedback on what you want to do – and to find some allies and supporters!

## Further Resources and Links for Action

### Ecological footprints and personal carbon reduction

<http://www.footprintnetwork.org> lots of resources about ecological footprints around the world.

<http://www.1010uk.org/> campaign and support for everyone in the UK to cut carbon emissions by 10% in 2010.

[http://www.museums-sheffield.org.uk/PDFs/climate\\_change.pdf](http://www.museums-sheffield.org.uk/PDFs/climate_change.pdf) is a report on the Museums Sheffield project 'Whatever the Weather' which included using ecological footprinting to have conversations with Sheffield people about climate change and how to reduce our footprint.

<http://www.oneplanetliving.org/index.html> ideas for one-planet living from WWF and Bio-Regional, based on 10 principles of sustainability.

### Taking action with your community

<http://transitionnetwork.org/Primer/TransitionInitiativesPrimer.pdf> a booklet that explains in brief what the Transition movement is about, and helps you to organise in your own community.

<http://transitionculture.org/> a blog by Rob Hopkins about the Transition movement, with many useful and inspiring links.

<http://lowcarboncommunities.net/> a network encouraging the adoption of low carbon lifestyles and technologies and supporting groups to act locally.

<http://coinet.org.uk/> COIN is a charity formed to engage the public about climate change - lots of resources and links.

### Organisations campaigning on climate change

<http://www.climatecamp.org.uk/> the Camp for Climate Action is a fast-growing, grass-roots network of diverse people taking action on climate change.

<http://www.campaigncc.org/> Campaign against Climate Change is a UK campaign for urgent action on climate change.

<http://www.wdm.org.uk/climate-change-campaign> World Development Movement campaigns for justice for the world's poor - including climate justice.

<http://www.foe.co.uk/> Friends of the Earth campaigns to make life better for people by inspiring solutions to environmental problems - they have local groups in the UK campaigning with local authorities, and work internationally too.

<http://www.stopclimatechaos.org/> a coalition of campaign groups in the UK who organised The Wave demonstration in London in December 2009.

<http://www.climate-justice-now.org/> international network of non-government organisations, led from the global South, campaigning for climate justice.

## Plans and Reports on climate change and how Britain can cut carbon

<http://www.zerocarbonbritain.org/> zerocarbonbritain details how Britain can eliminate emissions from fossil fuels and break our dependence on imported energy.

<http://climatesafety.org/downloads/> Climate Safety report provides an overview of climate science and what it means for government action.

<http://www.theccc.org.uk/> independent committee advising the UK government on building a low-carbon economy – reports to download.

<http://www.greennewdealgroup.org/> - their Green New Deal report set out how the triple crunch of climate change, peak oil and the credit crunch could be tackled through investment in green jobs.

## Finding out more and general resources

<http://www.metoffice.gov.uk/climatechange/guide/> introductory guide to climate change from the UK Met Office, and more in-depth explanations of climate science.

<http://climatechangeaction.blogspot.com/2007/01/contraction-and-convergence-short-video.html> this short video explains the idea of Contraction and Convergence as a way to make fair global reductions in carbon emissions.

<http://news.bbc.co.uk/1/hi/sci/tech/4994296.stm> an article about Contraction and Convergence (see above).

<http://www.oursouthwest.com/news/quotes1sd.htm>

This site is maintained by the Government Office for the South West – it includes some handy resources like the quote list which aren't specific to the South West only.

[http://www.oxfam.org.uk/get\\_involved/campaign/climate\\_change/sisters/index.html](http://www.oxfam.org.uk/get_involved/campaign/climate_change/sisters/index.html) Oxfam's 'Sisters on the Planet' page as part of their work on climate change.

<http://www.biofuelwatch.org.uk/> Biofuelwatch campaigns on biofuels – for example, opposing inappropriate power stations that use bio-fuels grown by removing tropical forests.

<http://canyh.wikispaces.com/> Climate Action Yorkshire and Humberside is a website that acts as a newsletter/calendar of events for the region.

## More resources – with a focus on fun!

[http://www.londonfreelance.org/funny\\_weather/](http://www.londonfreelance.org/funny_weather/) Cartoon Kate's brilliant cartoon book introduction to climate change 'Funny Weather' – free to download.

<http://www.cheatneutral.com/> how to offset infidelity in the same way as suggested for carbon!

<http://www.global-mindshift.org/memes/wombat.swf> a one-minute animation explaining correct use of our planet!

<http://www.storyofstuff.com/> brilliant animations to explain how the world economy and carbon trading work – plus features coming soon on electronics and bottled water.

<http://www.ageofstupid.net> Website for the film 'The Age of Stupid' – includes 'The Stupid Show' – a daily report from the UN Climate talks in Copenhagen in Dec 2009.



# CLIMATE CHANGE

WEA SCHEME OF WORK		Climate Change			
<b>Course title: Climate Change – get active!</b>		Tutor: Jenny Patient			
2 x 2.5 hour sessions to be run as a day-school or short course		<p><b>Course Learning Outcomes:</b></p> <p><b>By the end of the course the learners will:</b></p> <ul style="list-style-type: none"> <li>a. Be able to identify some key drivers of climate change and why it is an issue</li> <li>b. Be able to point out links between climate change and another issue</li> <li>c. Have recorded some of their own personal reactions and views on climate change</li> <li>d. Have thought through what they want to influence on climate change</li> <li>e. Be aware of more sources of information/support and ways to get involved</li> </ul>			
Session Number/Date	Learning Outcomes	Learning Methods	Resources Methods	Assessment Reviews	Progress
Session 1 (2.5 hours)	a, b, and e	Interactive exercises Exploring resources Discussion groups.	'Climate Change – get active' booklet. Tutor's resource sheets 1 to 4. A selection of 3 - 4 current newspapers or magazines.	Tutor observation.	
Session 2 (2.5 hours)	c, d and e	Discussion groups with video stimulus. Interactive exercises. Preparing/delivering a short talk. Action planning.	'Climate Change – get active' booklet. Tutor's resource sheets 5 and 6. A video and the means to show it via either web or DVD.	Tutor observation, including of: <ul style="list-style-type: none"> <li>• short talks.</li> <li>• action plans.</li> </ul>	





# CLIMATE CHANGE

WEA SESSION PLAN 1		Climate Change		
<b>Course Title: Climate Change – get active!</b>				
<b>Session Aims</b> (Session 1 of 2 as part of short course or day-school)		Course/day school Aim: To increase participants' capacity to be active citizens on climate change by deepening their knowledge and building their confidence to engage, influence and challenge. Session 1 – increase participants' capacity to be active citizens on climate change by deepening their knowledge and awareness of climate change and its links to other issues.		
<b>Session Learning Outcomes</b>		By the end of the session learners will: a. Be able to identify some key drivers of climate change and why it is an issue b. Be able to point out links between climate change and another issue c. Be aware of some sources of information/support and some ways to get involved		
<b>Resources</b>		'Climate Change – get active' booklet • Tutor's resource sheets • A selection of 3 - 4 current newspaper articles (or web access, or printed from web)		
Time	Activity Objectives	Tutor activity	Learner activity	Methods for checking learning
15m	Ice-breaker and get to know each other.	Introduce and wrap up Climate Bingo ice-breaker. (See tutor resource sheet for details).	Attempt to complete their bingo sheet by finding out facts about other participants.	
5m	Introduce course and session.	Introduce course and session, provide outline schedule.	Questions for clarification/ understanding.	Questions.
45m	Stimulate thinking/ understanding about ecological limits, resource use and social justice.	Lead Ecological Footprint exercise and follow-up discussion. (See tutor resource sheet for details).	Using interactive resources, calculate own footprint, discuss in pairs. Feedback/discuss in whole group.	Observe learner feedback and discussion.
55m	Stimulate thinking/ understanding about climate change as a current/political issue, and the views that exist about it.	Lead Climate Change in the News exercise and follow-up discussion. (See tutor resource sheet for details).	Using media resources and worksheet in small groups, build a picture of how climate change and views on it are portrayed in the media. Feedback/discuss in whole group.	Observe learner feedback and discussion.
30m				

# CLIMATE CHANGE

WEA SESSION PLAN 1		Climate Change	
1.35 for 10 minutes - Break			
Time	Activity Objectives	Tutor activity	Learner activity
50m	Provide opportunity for learners to deepen their knowledge about the links between climate change and another issue that interests them: eg. global justice, Britain's economy, energy use, community life, faith, food.	Lead <b>Making the Links</b> exercise and follow-up discussion. (See tutor resource sheet for details)	Using resources and worksheets in pairs or small groups, research and present back key links between climate change and their chosen area/issue.
Methods for checking learning			
Observe learner feedback and discussion.			
5m – Wrap up/look forward and close this session			
<b>Notes and comments:</b>			

# CLIMATE CHANGE

WEA SESSION PLAN 2		Climate Change		
<b>Course Title Climate Change – get active!</b>				
<b>Session Aims</b> (Session 2 of 2 as part of short course or day-school)	To increase participants' capacity to be active citizens on climate change by building their confidence to engage, influence and challenge.			
<b>Session Learning Outcomes</b>	By the end of the session learners will: a. Have recorded some of their own personal views on climate change b. Have thought through what they want to influence on climate change c. Be aware of some sources of information/support and some ways to get involved			
<b>Resources</b>	'Climate Change – get active' booklets • Tutor's resource sheets • A video and the means to show it via either web or DVD			
Time	Activity Objectives	Tutor activity	Learner activity	Methods for checking learning
20m	Welcome/Recap/ Intros.	Introduce this session and, if it is being run as a separate class, recap on last session's learning. A warm-up could also be used – eg using a picture to introduce yourself, or a 'weather-check' intro.	Questions for clarification / understanding; contribute to recap on last session; introduce self.	Observe questions and contributions.
55m	To stimulate learners' reflection about their own reaction and response to the underlying issues of climate change.	Lead Reflecting on Climate Change activity: Show short video (5 mins) and lead discussion in whole group – using a Philosophy Circle approach, i.e. choosing a question and taking turns to feed in reflections. (See tutor resource sheet).	Watch video and contribute questions and reflections to structured discussion.	Observe learner feedback and discussion.
60m	To build learners' confidence and commitment to speak up /campaign on an issue linked to climate change.	Lead Speaking Up activity: Ask each learner to choose a topic they want to take action on speak up about, and prepare some notes on it, including a mini Action Plan to take away. (See tutor resource sheet).	Spend 10 minutes making notes individually, 10 minutes sharing with partner, and contribute to presentations to the whole group. Use Action Plan template to record their intentions, making a note of resources or organisations from the resource bank/booklet – share intention with whole group.	Observe learner's presentation of their Action Plan.

# CLIMATE CHANGE

## WEA SESSION PLAN 2

## Climate Change

15m – Wrap up session/ day-school/ course and carry out evaluation/feedback exercise.

Notes and comments:

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## Climate Change – Get Active!

### Tutor Resource Sheet 1 – Course Icebreakers

#### Climate Bingo

Suggested to use at the start of the course, to enable people to put names to faces and find out a little about each other. (An alternative would be a go-round or paired introduction).

Each participant has a Bingo sheet and the aim is to find a different person to fulfil each box, and record their name. See resource sheet below.

#### Weather Check Intro

This is a useful session intro once participants have got to know each other – eg at the start of session 2. As a go-round in the whole group, ask for feedback on how that person is feeling, in the form of a ‘weather forecast’ – eg “I’m feeling sunny but may well cloud over by mid-afternoon” or “Currently experiencing fog, hopefully clearing later”. You can also ask for an extra comment from each person – eg their main question at the moment, or their main learning from the previous session.

#### Picture Introductions

Have a large selection of pictures available (magazine photos, postcards – say 2 or 3 times as many as you have people). Spread them face up on a table or the floor and ask participants to choose an image to which they relate, and use it to introduce themselves. Go round the circle, encouraging people to keep intros brief.



**Tutor Resource Sheet 1 – Course Icebreakers**

**Climate Bingo!**

Find a different person who can answer 'yes' to each box, and record their name:

<b>Lives in the same local area as you</b>	<b>Rides a bike</b>
<b>Has measured their energy use at home</b>	<b>Has seen the film 'Age of Stupid'</b>
<b>Has been on a demonstration</b>	<b>Belongs to a community group or trade union</b>
<b>Knows the name of their local councillor</b>	<b>Knows what the government department DECC stands for</b>
<b>Can knit</b>	<b>Has seen the film 'An Inconvenient Truth'</b>
<b>Usually travels by car</b>	<b>Has children who tell them about climate change</b>

**CLIMATE CHANGE**

## Climate Change – Get Active!

### Tutor Resource Sheet 2 – Your Eco Footprint

#### Summary

This interactive group exercise enables participants to estimate their personal ecological footprint, by scoring aspects of their lifestyle. An ecological footprint measures the resources we consume in terms of the area of land they require, and enables us to imagine how many 'Earths' would be required if everyone shared our lifestyle. This brings out the issues around both how human society is overloading the Earth, and the massive inequalities between people in the global North and South.

#### Tutor Notes

Exercise takes 45 minutes overall.

#### Overview of activity:

Timing	Activity	Resources
5 mins	Tutor introduces ecological footprint.	Introduction notes below
15 mins	Learners work in pairs to calculate own footprint, using either worksheet or online calculator.	Worksheet below, or online calculator (see links)
20 mins	Feedback of findings and thoughts in whole group.	Feedback notes below.
5 mins	Spectrum line exercise to explore low-carbon well-being .	Spectrum line tutor notes below.

#### Introduction Notes

This exercise will enable you to estimate your personal ecological footprint by scoring aspects of your lifestyle. An ecological footprint measures the resources we consume in terms of the area of land they require, and enables us to imagine how many 'Earths' would be required if everyone shared our lifestyle. Everything we use comes from the land – we grow food, cut down wood, dig up minerals and fossil fuels, and the carbon dioxide we produce needs forests and uncultivated land to absorb it from the atmosphere.

It is intended to be a guilt-free exploration –an audit – please be honest, and don't be critical of yourself or others. In the end it's up to you what you do about it - the footprint will just give you some information.

The planet we live on is 2/3 covered in oceans, and of the land area, there is roughly 1/3 forests, 1/3 deserts and mountains, and 1/3 that can be used for food production. The productive area is roughly 12 billion hectares, and when divided equally between the world's population, gives about 1.7 hectares of land per person that can be used to provide our needs sustainably. (A hectare is 2.5 acres or 100m x 100m – imagine it as a large football pitch!).

To estimate your ecological footprint, use the scoring sheet handout. Work with a partner to judge your score (you can choose a score in between the high and low scores for each section).

When you've finished scoring, add up all the scores. This gives a total score which you can divide by 100 to tell you how many planets would be needed if everyone in the world lived like you. (Each 100 points is equivalent to one of the 1.7 hectares fair shares of land – called 'global hectares' because the differences in land have been ironed out to give a global picture.) For comparison, the average ecological footprint for the UK is 3 planets, for China it is 1 planet, for Angola it's 1 planet, Poland is 2 planets and the USA is 5 planets.

### Group Feedback Notes

Facilitate feedback on scores, perhaps by main categories, and also on:

- What they have learnt, or what surprised them?
- How do they feel about their score?
- What would they like to change themselves?
- What would need to be changed by government or companies so they could reduce their footprint? Eg better public transport, more local food available.

### Spectrum Line Notes

A spectrum line is a way for a group to gain information about the range of opinions/situations, without having to talk much. The two ends of the room are designated as being the ends of a spectrum (e.g. one end 'I love my job', the other 'I hate my job') and the participants place themselves in the room according to their situation. From their positions, statements can then be made or questions answered.

Here the spectrum line is 'high carbon' to 'low carbon' – ie something that uses lots of fossil fuel energy would be high carbon. The exercise is for each person to quietly contemplate what recent experience they have had that made them feel happy and fulfilled or really satisfied. When they have identified such an experience, they think about what the footprint of that experience was: eg jet-skiing in Hawaii = high-carbon; playing in the snow in their local park = low-carbon. They place themselves on the spectrum line, and observe how others have placed themselves. (Typically most participants place themselves as low carbon, with a few nearer the high carbon end.) The facilitator can then ask a few people (at different points in the line) to share something about their experience and what they've learned/observed from the exercise (no-one should be asked to share what they don't wish to). This exercise commonly brings out a view that our real happiness and satisfaction in life is not dependent on high inputs of fossil fuel energy.

### Useful Links

Simple online ecological footprint calculator by Best Foot Forward (also calculates a carbon footprint) <http://www.ecologicalfootprint.com/>

The even simpler paper-based calculator below is also based on work by Best Foot Forward – see <http://old.bestfootforward.com/globalsteps.html>

Best Foot Forward's site includes some reports, eg footprints of areas of the UK and of the NHS: <http://www.bestfootforward.com/publication/>

Information from the UN Millennium Ecosystem Assessment about how humans are overloading the planet: <http://www.greenfacts.org/en/ecosystems/>

[http://www.museums-sheffield.org.uk/PDFs/climate\\_change.pdf](http://www.museums-sheffield.org.uk/PDFs/climate_change.pdf) is a report on the Museums Sheffield project "Whatever the Weather" which included using ecological footprinting to have conversations with Sheffield people about climate change and how to reduce our footprint.

<http://www.footprintnetwork.org/en/index.php/GFN/page/trends/> shows how the ecological footprints of various countries and the world are changing over time, and also shows their "bio-capacity" – the natural resources they have.

[http://www.footprintnetwork.org/images/uploads/Ecological\\_Footprint\\_Atlas\\_2009.pdf](http://www.footprintnetwork.org/images/uploads/Ecological_Footprint_Atlas_2009.pdf) is an atlas of all kinds of global information about ecological footprints and bio-capacity.

<http://www.resurgence.org/resources/carbon-calculator.html> This is a recommended carbon footprint calculator – more limited than an eco footprint but very relevant to climate change.

<http://www.1010uk.org/> Campaign and support for everyone in the UK to cut carbon emissions by 10% in 2010.

## Calculating and Understanding your Ecological Footprint

Category	High Score Description	High Score	Your Score	Low Score	Low Score Description
Food	You consume plenty and pay little attention to where your food is produced.	100	<input type="checkbox"/>	32	You eat locally grown vegetarian food and have no food waste.
Waste/ Stuff	You buy lots of new stuff and recycle little or none of your waste.	100	<input type="checkbox"/>	32	You produce very little waste, reuse/recycle everything possible, and often buy second-hand.
Transport	You travel mostly by car.	75	<input type="checkbox"/>	10	You travel mostly by public transport, cycling or walking.
Holidays	You take at least one flight per year.	65	<input type="checkbox"/>	10	You usually holiday close to home.
Heating	You keep your home warm, have poor insulation and high heating bills.	45	<input type="checkbox"/>	10	You use your heating sparingly, have excellent insulation and low bills.
Electricity	You use many standard appliances, often leaving them on.	50	<input type="checkbox"/>	10	You use low-energy appliances and turn them off afterwards. (if you buy electricity from renewable sources, score is just 2!).
Paper	You regularly buy newspapers and new books.	10	<input type="checkbox"/>	5	You share newspapers and usually borrow books rather than buy them.
Water	You take lots of baths use an old dishwasher or a hosepipe etc.	5	<input type="checkbox"/>	1	You take mostly showers and don't use an old dishwasher or a hosepipe, etc.
<b>Add up your scores to give total points:</b>			<input type="checkbox"/>		

**Your score shows how much land is needed to support your lifestyle, and how many planets would be needed if everyone lived in the same way as you (the effects of the wider economy and Government have been added in!).**

### 100 points = 1 planet

Well done – if everyone lived like you, then humans and animals could live sustainably on our planet.

### 150 – 350 points = 2 to 3 planets

Your footprint is around the average for people in Europe. Reducing it to one-planet living needs some personal changes and changes by government.

### 350 – 450 points = about 4 planets!

Your footprint is near the average for people in the USA – this is about ten times the footprint of a person in Bangladesh or Angola (half a planet).

**Useful links:**

**<http://www.ecologicalfootprint.com/>** simple online ecological footprint calculator

**<http://www.resurgence.org/resources/carbon-calculator.html>** Detailed carbon footprint calculator – enter your fuel bills and car mileage.

**<http://www.footprintnetwork.org>** lots of resources about ecological footprints around the world.

**<http://www.1010uk.org/>** Campaign and support for everyone in the UK to cut carbon emissions by 10% in 2010.

## Climate Change – Get Active!

### Tutor Resource Sheet 3 – Climate Change in the News

#### Summary

This activity enables participants to engage with how climate change is portrayed and discussed in the news and in the public realm. Through exploring media stories, and comparing them with what they have learnt from the eco-footprint exercise, the participants can develop their own questions and challenges to deepen their perspective on the facts as they are publicly portrayed.

#### Overview of activity

This activity takes 30 minutes overall.

Timing	Activity	Resources
3 mins	Tutor introduction	
17 mins	Learners work in groups of 3-4, each with a different media 'story' (a newspaper or magazine article). Using the worksheet, they discuss the story and develop questions and challenges to its perspective.	Worksheet. 3 to 4 identified 'stories' relating to climate change – accessed as paper or web pages.
10 mins	Groups feed back to the whole group key points they have identified. Discussion – what conclusions can be drawn?	Flipchart to record key points and conclusions.

#### Useful Links

Sample news items:

<http://www.telegraph.co.uk/news/newstoppers/politics/david-cameron/7024176/Climate-change-doubts-threaten-to-undermine-David-Camerons-pledges.html>

<http://www.telegraph.co.uk/news/worldnews/asia/china/6061978/Tony-Blair-Copenhagen-climate-summit-must-not-be-about-percentages.html>

<http://www.telegraph.co.uk/earth/environment/6059079/Lord-Adonis-no-need-to-cut-travel-to-save-the-planet-says-Transport-Secretary.html>

<http://www.telegraph.co.uk/earth/earthnews/7011713/UN-report-on-glaciers-melting-is-based-on-speculation.html>

<http://www.dailymail.co.uk/news/worldnews/article-1235284/Copenhagen-climate-change-summit-Thousands-activists-stage-colourful-rally.html>

<http://www.dailymail.co.uk/news/article-1221916/Climate-change-advert-featuring-drowning-puppies-dying-rabbits-probed-watchdog-350-complaints.html>

<http://www.dailymail.co.uk/news/article-1236513/Met-Office-manipulated-climate-change-figures-say-Russian-think-tank.html>

<http://www.independent.co.uk/environment/climate-change/the-sinking-sundarbans-1862267.html>

<http://www.guardian.co.uk/environment/2010/jan/21/lisa-murkowski-epa-greenhouse-gases>

<http://www.guardian.co.uk/business/2010/jan/18/shell-shareholders-fury-tar-sands>



**Climate Change in the News – questions to ask about news coverage**

1 What are the key points made in this article?

2 Does the headline reflect the main content of the article?

3 Whose point of view or interests are explored?

4 Is the article mostly about facts or opinions?

5 What assumptions does the article make?

6 What did you learn from this article, or what surprised you?

7 What questions do you have after reading this article?

8 Does this article fit with what you learned from the Eco-footprint, or if not, what doesn't seem to add up?



## Climate Change – Get Active!

### Tutor Resource Sheet 4 – Making the Links

#### Summary

This activity provides an opportunity for learners to deepen their knowledge about the links between climate change and another issue that interests them: e.g. global justice, Britain's economy, energy use, community life, faith, food. The learners are introduced to resources available on the web that can be used to research their interests – both in this session and afterwards.

#### Overview of activity

This activity takes 40 minutes overall.

Timing	Activity	Resources
3 mins	Tutor introduction – list/explain the different themes on offer.	Copies of the resources can be set out on different tables, or computers used to go to the links online (or have both options available). The course booklet also offers a resource for this exercise.
2 mins	Learners choose a subject that interests them to explore.	Using online / paper resources.
30 mins	Learners research the theme and record their own learning.	Using online / paper resources.
5 mins	Whole group feedback of any key issues with the research. Discuss plans to continue research, eg before second session of course (if not run as day-school).	Flipchart.

#### Climate Change and Global justice

**Key resource:** World Development Movement's Climate Change Campaign Pack – read the different leaflets online or order the pack at:

<http://www.wdm.me.uk/campaigns/climate/indepth/index.htm>

#### Climate Change and Britain's economy

**Key resource:** 'One Million Climate Jobs Now' published by Campaign against Climate Change Trade Union group, and available to view/download or buy at:

[http://www.pcs.org.uk/en/resources/green\\_workplaces/green\\_campaigns/one-million-climate-jobs-now.cfm](http://www.pcs.org.uk/en/resources/green_workplaces/green_campaigns/one-million-climate-jobs-now.cfm)

### **Climate Change and UK Energy use**

Key resource: 'Sustainable Energy – without the hot air' by David J. C. MacKay – a 10 page summary of his book is available online at:

<http://www.withouthotair.com/synopsis10.pdf>

### **Climate Change and Community life**

**Key Resource:** from Rob Hopkins' Transition Culture blog, 3 different 'takes' on organising a resilient community, at:

<http://transitionculture.org/2009/10/08/james-samuels-6-steps-of-community-engagement/>

<http://transitionculture.org/2009/12/04/what-it-looks-like-when-a-local-authority-really-gets-transition-the-montevoglio-story/>

<http://transitionculture.org/2010/01/15/why-community-might-not-need-organising/>

### **Climate Change and Faith**

**Key Resource:** Faith and Climate Change blog has many links to faith groups and projects:

<http://faithandclimatechange.wordpress.com/>

See also:

<http://religionsandconservation.wordpress.com/>

<http://akashi.cambridgecarbonfootprint.org/>

### **Climate Change and Food**

**Key Resource:** 'Manifesto on Climate Change and the Future of Food Security' available at:

<http://www.future-food.org/>

## Climate Change – Get Active!

### Tutor Resource Sheet 5 – Reflecting on Climate Change

#### Summary

This activity aims to enable the learners to reflect collaboratively on the global effects of climate change and the impact on communities. A short film will highlight the injustice involved – both to poor, non-industrialised countries and to women – and the inspiration of grassroots responses. The participants will then consider what questions they have, and bring them back to the whole group, where an open-ended question will be discussed in a reflective way. (This session is modelled on a ‘Community of Enquiry’ or ‘Philosophy Circle’ approach).

#### Tutor Notes:

This activity takes 45 minutes overall.

#### Overview of Activity

Timing	Activity	Resources
5 mins	Film is shown	See Useful Links – suggested film is ‘Sahena’ from the Oxfam ‘Sisters on the Planet’ series.
10 mins	Learners work in groups of 3-4 to generate ‘philosophical’ questions that have been stimulated by the film. Each group chooses one question to feed back to the whole group.	Notes on Philosophical questions below.
5 mins	Voting process in whole group to choose a question to discuss.	Notes on voting method below.
20 mins	Whole group discussion of the chosen question.	See notes on Philosophy Circle below.
5 mins	Final words – conclusion of discussion	

#### Notes on Philosophical questions

Some questions, like a good quiz question, have a single right answer that can be identified. Another kind of question is the Philosophical Question, to which there is no right answer, but which leads to a worthwhile discussion and deeper understanding.

Check that the questions are open questions, i.e. that they do not have a yes/no or other specific answer.

As the questions are fed back to the whole group, write them up on the flipchart, noting any links/similarities between them.

### Notes on Voting Method

One way that works well is the Omnivote – each person can vote as many times as they wish, but only once for each question.

Or you can allocate 3 votes to each person and allow them multiple votes per question.

### Notes on the Philosophy Circle

The aim is a discussion or dialogue which is Creative – Collaborative – Critical – Caring. Critical reflection opens out the issues and challenges assumptions. Caring implies empathy for others - listening to feelings not just expressing thoughts. Collaboration means listening to others, seeking understanding and engaging with different viewpoints. Creativity is about not getting stuck with trite explanations, but using imagination and courage to explore new ideas.

Practically, it can be helpful to structure the discussion either as a go-round, or to use a 'talking stick' that people pick up when they want to contribute. Or hand gestures can be used – an open palm held out to indicate a wish to speak.

It's helpful if contributors refer to, support, build on or question others' contributions. Philosophical Enquiry is based on reasoning, so it's good to say why you think what you think – base it on your experience and prior learning.

The facilitator avoids giving their own views, but can ask questions that help the process – for example, to clarify, expand, make distinctions, explore implications or summarise views.

### Useful Links

Sisters on the Planet [http://www.oxfam.org.uk/get\\_involved/campaign/climate\\_change/sisters/](http://www.oxfam.org.uk/get_involved/campaign/climate_change/sisters/)

4 short films about women around the world and their connection with climate change:

- 1 Sahena – story of a Bangladeshi woman who has become chair of the Disaster Committee – taking practical action building ovens and rescuing people from floods.
- 2 Martina – a painfully sad story of a Ugandan village suffering from failure of rains. By itself, this story doesn't show examples of action - there is also a follow-up film about forming a women's committee and their tree planting project (but showing both may take too long).
- 3 Muriel – Brazilian politician talking about how climate change affects women – the footage is global, and this is a more detached perspective than the others.
- 4 Melissa – London primary school teacher taking action on climate change – this doesn't offer the same insight into climate change as an issue for the majority world.

SAPERE – Society for Advancing Philosophical Enquiry in Education  
<http://www.sapere.org.uk/>

## Climate Change – Get Active!

### Tutor Resource Sheet 6 – Speaking Up

#### Summary

This activity encourages each participant to formulate their thoughts and plans and identify support around an issue of climate change which motivates them personally. Using information from the research exercise in Session 1 and, if applicable, from their own research between sessions, they create an Action Plan and present it to the group.

#### Tutor Notes:

This activity takes 60 minutes overall. It could be extended if there is scope to reallocate time from the session introduction, when the course is run as a day-school.

#### Overview

Timing	Activity	Resources
5 mins	Tutor introduces activity	See notes below
10 mins	Learners work individually to prepare their Action Plan – aims.	Action Plan template
10 mins	Working in pairs/threes, each learner explains the aims of their Action Plan and gets feedback.	
15 mins	Each learner adds details to their plan – identifying some key points they want to work on and how they will get support.	Research resources from Session 1 and learner’s own research if applicable.
20 mins	Each learner presents their Action Plan ideas in the whole group (1 min each!) – plans are recorded on flipchart by tutor.	Flipchart key points. Also get a copy of plans if possible and Flipchart key points. Also get a follow up with learners by email in 6 months.

#### Useful Links

See Tutor Resource Sheet ‘Making the Links’ for Key Resources for research.



**CLIMATE CHANGE**

**My Climate Change Action Plan:**  (Name)

Contact email address:

**What I want to influence or campaign on:**

**My aim:**

	What I can do by myself	What I can do with others
<b>Short Term</b>		
<b>Longer Term</b>		

**Key points I would like to make:**

- \_\_\_\_\_  
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- \_\_\_\_\_  
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