

# A TEMPLATE TALK ON CLIMATE CHANGE

This template can be used for talking to any audience. For each section there are two categories: basic points and more detailed points. A talk composed of the basic points (with a few additional points tailored to the interests of a specific audience) should fill around one hour with a 15 minute discussion.

A key phrase in each paragraph is **highlighted in bold**. You can use these phrases in any notes for the talk as a reminder of the points you wish to make and how they follow from each other.

## INTRODUCTIONS

- Introduction by the host group.
- Thank you for inviting me.
- There are some materials over on the side table for further information.
- After the talk, which will last xx minutes, there will be a xx minute discussion, so please keep any opinions, questions until then.

## CONNECTIONS- 3 MINUTES

This is a short warm up to set the tone of the talk as something intimate and relevant to people- drawing from you personal connection, or recent news.

### A PERSONAL CONNECTION

**I became concerned about climate change when....** I decided that I would make a personal commitment to doing something about it.

### OTHER CONNECTIONS

- A NEWS CONNECTION - I'd like to show you something from (a recent) newspaper. Here on page four we see Pakistan has worst droughts in 200 years and here on page 15 we see Shell Oil posts record profits. They are on different pages, but these news events are directly related.
- A WEATHER CONNECTION - It is best to refer to recent events, though people will remember very severe local weather up to 6 months previous. Last week there were record rains in (local area). At the same time there is the worst drought in living memory in (foreign area). These events are related...
- MORE - If you see strong audience reaction, invite a couple of people to comment on anything they have noticed strange in the weather.
- LOCAL EFFECTS - This winter there was no snow in (local area). There wasn't any last year. We used to have snows every year when I was a child- we can see that the weather is changing. This year the blossom on my cherry tree/ the daffodils/ came out three weeks early..

## WHAT IS GLOBAL WARMING — 10 MINUTES

We suggest you follow this section quite closely so you can get through it as quickly as possible. Turn it into bullet points based around the phrases in bold and memorise it:

**Scientists have known** for over 100 years that the different gases in our atmosphere have very different properties, in particular that some of them are able to hold onto the heat from the sun's rays and stop it from being radiated back into space. They work like the glass in the greenhouse, allowing the sun's rays to pass through and then trapping the heat- that's why this is called the "greenhouse effect" and the few gases that have this property are called "greenhouse gases". The main gases present in the atmosphere which have this quality are Carbon Dioxide and Methane. They only make up a very small percentage of the atmosphere.

**The greenhouse effect is not a bad thing-** if we didn't have this blanket of greenhouse gases we would be as cold as the moon. They are what makes life possible on earth. So we are very dependent on these relatively tiny quantities of the greenhouse gases.

**You don't have to be a scientist** to realise that if we change the proportion of the greenhouse gases we change the capacity to hold the sun's energy. This is true whether we are talking of the atmosphere or a test tube- it's fundamental to the physics of these gases. You also don't have to be a scientist to realise that, because they are only a small percentage of the atmosphere, relatively small changes in the quantity of these gases can produce significant changes in the behaviour of the atmosphere.

Obviously, adding so much greenhouse gases to the atmosphere **increases the amount of the sun's energy** that will be retained in the atmosphere - it's like throwing another blanket on the bed, or triple glazing our greenhouse. So, one level we can expect the world to heat up dramatically. But it's also more complex than that. Weather systems transfer huge quantities of energy from one place to another as winds or currents- if we change the amount of energy in the system we can completely alter these systems. These systems are extremely complex and we have very little understanding of how they work.

**The problem is that we are increasing the quantities of these gases at a HUGE rate.** Every time we burn things we produce carbon dioxide- and if you stop to think about it, our whole way of life is based on burning things- coal, oil, gas- the so called "fossil fuels". We burn them for our cars and planes, our heating, our factories, for electricity. Just think of every car on a motorway as a fire, and every power station as a huge inferno, and multiply that across the world.

If you think about it, oil and coal are the product of the carbon removed by forests and plankton over millions of years. So when we burn them we release all that carbon dioxide back into atmosphere. We are literally taking our atmosphere back to the **age of the dinosaurs**.

**Our way of life** produces many other greenhouse gases too- landfill sites and old coal mines leak methane, our fridges and freezers leak CFC coolants which not only destroys the ozone layer but is also a very powerful greenhouse gas, 9,000 times stronger than carbon dioxide. The scientists say that at present rates, within 35 years we will have doubled the amount of carbon dioxide in the atmosphere compared with 200 years ago.

**There are many natural mechanisms** for keeping the levels of the greenhouse gases in balance. Trees and plants soak up carbon dioxide. In the oceans plankton soak up carbon dioxide and sink to the bottom. The problem is that we are pumping out twice as much carbon dioxide as these natural systems can remove. At the same time we cutting down huge areas of the tropical rainforests which help remove that carbon dioxide, and to make things worse, we're burning them.

So it's important to be **careful with our language**- We think of "Climate" as something remote that scientists study and "climate change" sounds like a slow, steady and controllable process. "Global Warming" suggests a slow and steady heating - like warming up a cup of tea. But the local effects might not be warming at all- it may include sudden severe cold spells. So really the phrase which best sums it up is "weather chaos".

**And it's already happening.** Scientists tell us that current global temperatures are the highest for at least 1,000 years, that the glaciers and icecaps are melting extremely rapidly and there has been a startling increase in extreme weather events. For example:

- Every one of the hottest 15 years on record has occurred since 1980 – the hottest five since 1997.
- By March 2001, Britain had more rain than for any 12 month period *since records began* in 1730. Scientists believe this may have been the most rain for at least 500 years. We all remember the flooding that followed.
- The winter of 2000-2001 was the coldest in the USA, since *weather records began*. The previous winter was the warmest *since records began*.
- 1998 was the warmest year recorded since 1860, the earliest year for which a precise global estimate is possible. 2002 and 2003 tie for second place. The UK's Meteorological Office predicts that 2007 will be hottest still.

When you hear or read of extreme weather notice those phrases; "*since records began*", "*in living memory*", and "*unseasonal*". All these are indicators of increasing weather chaos.

And there are other **natural indicators** of disturbing weather changes. Plants are coming up at the wrong time of year, birds in Britain are nesting, on average, two weeks earlier than 20 years ago..

## IMPACTS-6 MINUTES

There is a **long lag time** before changes in the atmosphere produce their full effects on weather patterns- so the effects we're starting to see now are the cumulative result of the greenhouse gases we emitted over the past 100 years. We have scarcely begun to feel the results of what we're doing now.

But it follows that the actual weather changes in the future is **dependent on how we respond now**. Climate scientists talk of different "scenarios" based on different responses. The longer we take to reduce our greenhouse gas emissions, the greater the impacts.

Even if we take immediate action tomorrow, there's no escaping the fact that **the weather will continue to change** dramatically as a result of current emissions. Scientists are predicting ever more extreme weather patterns around the world-more floods, droughts, fires, storms. In Britain they predict more rain in winter, less rain in summer, milder winters and hotter summers, increased winds and storm damage.

But the most disturbing impacts relate to what they call the "**business as usual scenario**"- which means that we take no action and keep burning more and more. Let's look at these business as usual predictions in detail, because they are the strongest argument for us to take action.

Over the next 100 years, average world temperatures will rise by up to 11°F (6°C). Local increases may be up to double this amount.

Water shortages-within 25 years, five billion people will live in areas with water shortages

Sea levels may rise by 40cm, threatening to displace up to 200 million people

Within 50 years these climate changes will create 150 million environmental refugees.

So many of the worst effects will be felt in the **poorest countries** in the world where people are already on the edge of survival. People in the USA, Europe and other rich countries have created this problem. Almost all the people who will die from drought, floods, disease and famine have played no part in creating the problem.

[note- third world greenhouse gas emissions have risen to a point where they will soon overtake the industrialised world. They will need to reduce emissions too. But we are still the main culprits because our emissions are far higher per person and because the greenhouse gases already in the atmosphere are almost entirely from our industrial development]

But these predictions are still **well informed guesses**. Scientists do not understand the full mechanisms of world climate systems, and so it is impossible to predict with certainty the exact local impacts. But this does not mean that things might be OK. Scientists agree that there will be severe impacts and when they talk of "uncertainties", it only means that they cannot be certain of how severe.

This means that **impacts may be far worse** than the current predictions. Soils, forests and oceans contain hundreds of times more carbon than the atmosphere. The global increases in temperature may lead to these huge natural stores being released back into the atmosphere. If this happens- and many scientists say that it will happen if we don't take immediate action- we could face an even greater and accelerating nightmare.

## **THIS IS A MORAL ISSUE 5 MINUTES**

This is the section for you to speak from the heart about how you feel about this issue and why we must do something about it.

### **WHY IS NOTHING BEING DONE? 8 MINUTES**

So **everyone agrees** there is a huge problem. There are 2,000 climate scientists studying the causes and impacts. Scientific organisations have produced repeated calls for action- one in 1997 was signed by 1,500 scientists including 110 Nobel prize winner. As recently as May 2001, the national scientific academies of 17 nations produced a joint letter of concern and call to action. And the heads of governments have been quick to follow, starting with Margaret Thatcher in 1992.

There have been nearly 20 years of attempts to set **international targets** for reducing green house gas emissions. In 1992 all the industrialised countries signed the Framework Convention on Climate Change, declaring the need for concerted action. Five years later, in Kyoto, Japan they agreed the text of a protocol to reduce emissions by an average of 5.2% by 2010.

This target is a **completely inadequate**. In 1992 scientists said that global reductions of over 60% were needed to hope to stabilise concentrations in the atmosphere- and even this would still lead to climate change depending on how long it took to implement the cuts.

The protocol is also full of **loopholes**. It allows countries numerous options to avoid making domestic cuts by buying carbon credits from other countries that are not bound by the treaty. To make matters worse it then proposes new speculative markets to trade these carbon credits. In November 2000 the negotiations collapsed over arguments over a final loophole which allowed

countries to increase their emissions targets if they could argue that their forests and land use were absorbing carbon.

The key point is that despite all the arguing and loopholes **not one developed country has yet signed** the protocol. In May 2001 US President George Bush declared that the US would not sign.

In the mean time, global emissions continue to rise in line with the worst "business as usual" scenario. In Britain, total emissions have fallen because electricity generation has switched from coal to gas which produces less Carbon Dioxide. However overall energy use and road transport continue to rise every year.

The US was supposed to reduce emissions by 7% and has actually increased them by 11%. Huge gas guzzling sports utility vehicles getting less than 15 miles per gallon now account for the majority of cars sold.

### **So why is nothing being done?**

One reason is that we are **addicted to fossil fuels**. Our entire economic system and way of life is based on fossil fuel and we cannot imagine life without them. We will do anything to keep the flow of these fuels, fighting wars and supporting repressive governments. As with any addiction, the first step is admitting the dependency.

Another reason is that society at all levels **in denial**. Superficially we recognise the problem but we cannot face the enormous scale of the crisis we are creating. There is a vicious circle: because nothing appears to be happening it helps us all to believe that the problem can't be all that serious; because we don't accept the scale of the problem we don't do anything.

This denial is also actively fed by **corporate public relations**. Oil, energy and car companies have spent tens of millions of dollars fighting the Kyoto protocol. One strategy has been to support discredited fringe scientists to deny the existence of greenhouse gas influenced global warming. Another has been to argue that even small cuts in emissions will destroy the economy. Articles placed by these public relations campaigns regularly appear in the British press.

But the **responsibility lies with us too**. For 20 years we have been hearing about this and waiting for someone else to do something. And when you have a whole world of people waiting for someone else to do something- nothing happens!

### **SOLUTIONS AND DOING SOMETHING-10 mins**

This is **not a hard problem**. The solution to climate chaos is very simple- we have to move out of the combustion age and develop energy and transport technologies that can use natural renewable energy such as solar, wind and wave energy.

The **technologies already exist and work**. They are not yet as cheap as conventional energy but large scale investment and production is already dramatically reducing costs.

We also need to be **far more efficient** in how we use energy. We have the oldest, worst insulated housing stock in Europe. We can reduce our emissions, our bills and live in warmer healthier houses.

But if we continue with a culture that uses ever more quantities of energy, we'll never manage to catch up. So we need to **rethink the way we live**. This is hardly a bad thing. We spend ever longer periods in traffic jams, commuting ever greater distances, working long hours in jobs that many

people don't enjoy to earn money to buy things that don't really make us happy. Our roads are congested and dangerous, we're laden down with debt, the levels of stress and depression keep rising. Surely we can do better than this?

Reducing emissions by 60% or more is completely possible if we have a **combined sense of purpose**. In the past in times of national crisis we've all come together and worked to one goal. This is a crisis and we need to treat it as an overreaching national and international goal.

## THE CHALLENGE-5 MINUTES

After 20 years of talk and no action, we must accept that this change will never happen fast enough until we **demand** it. We can take personal action on **four levels**:

Level one is in our **own lives**. By accepting the scale of the problem and our own involvement in it, by setting goals for reducing our own emissions. After all we can't ask other people to do something that we refuse to do.

Level two is **acting locally**. This could be as simple as talking to your friends and people at work, spreading information encouraging them to make changes. It could involve putting pressure on your employer, the local council, local organisations or companies. It could be forming a local protest group. There are any number of issues to work on: wasteful energy use, transport, information and education

Level three is **acting nationally**. Putting pressure on the government and national organisations and companies- demanding that they make changes. Supporting national campaigns and protests.

Level four is **acting internationally**. This is harder, but there are still many ways that we can put pressure on international companies, foreign governments such as the US, and demanding that our own government takes a lead in pushing for real change.

Any action that involves engaging with people will challenge people, make them think and work for change. All over Britain ordinary people just like you have decided to take personal initiative to do something. I've brought some information about some of these campaigns- support them, or start something new.

And **I've made this step** in my own life. I decided to take action; to spread the word and ask other people to do the same. Which is why I asked to come and talk to you. I don't find it easy to talk in public, but I feel that we have to talk about this crisis. I can no longer be silent.

So **the first step starts in this meeting**, with the challenge to you to break this cycle of denial and silence and start taking personal action. Think of all the ways you can influence things around you- all the skills that you have to share and use. Every small step multiplies the movement for change. We can overcome this crisis once we decide to do something about it. And that decision starts with you- today.

## DISCUSSION 15 MINUTES

We've got a short period for discussion. If anyone has any questions I'll do my best to answer them- or there may be people here who can also answer them. This is the point in the meeting where you get to speak, so please feel free to share your concerns and, above all, ideas for what we can do.

# SUMMARY OF POINTS FOR TALK

## INTRODUCTIONS

### CONNECTIONS- 3 MINUTES

- I became concerned about climate change when

### WHAT IS GLOBAL WARMING - 10 MINUTES

- Scientists have known for over 100 years
- The greenhouse effect is not a bad thing
- You don't have to be a scientist to realise...
- The amount of the sun's energy retained
- Increasing the quantities of these gases at a HUGE rate
- Age of the dinosaurs.
- Our way of life
- There are many natural mechanisms for balance
- Be careful with our language
- And it's already happening-record breaking, unseasonal, living memory
- Natural indicators show something is wrong

### IMPACTS-8 MINUTES

- Long lag time
- Changes dependent on how we respond now
- The weather will change as a result of current emissions
- The "business as usual scenario"
- The worst effects in the poorest countries
- Predictions are well informed guesses
- Impacts may be far worse —releases from forests and oceans

### THIS IS A MORAL ISSUE- 5 MINUTES

### WHY IS NOTHING BEING DONE? 8 MINUTES

- Everyone agrees there is a problem
- 20 years of attempts to set international targets
- Kyoto target is a completely inadequate
- The protocol is full of loopholes
- Not one developed country has yet signed
- Global emissions continue to rise
- So why is nothing being done?
- We are addicted to fossil fuels
- Society is in denial
- Corporate public relations
- Responsibility lies with us

## **SOLUTIONS AND DOING SOMETHING-10 mins**

- This is not a hard problem
- The technologies already exist and work
- We can be far more efficient
- We need to rethink the way we live
- Possible if we have a combined sense of purpose

## **THE CHALLENGE-4 MINUTES**

- We must demand change through action on four levels:
- Level one :our own lives
- Level two; acting locally
- Level three: acting nationally
- Level four: acting internationally
- Examples of campaigns and people taking personal action
- I've made this step in my own life
- The first step starts in this meeting

Rising Tide — Speaker Training Factsheet - [www.risingtide.org.uk](http://www.risingtide.org.uk)