

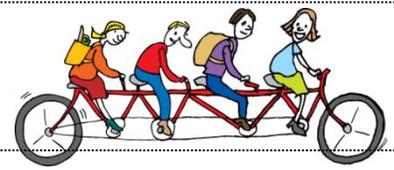


Name:

Group name:

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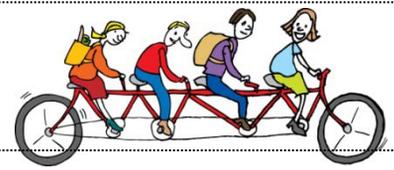
# 1. Getting started



**The Practical  
Action Plan**

# Transition Streets

## 1.4 INTRODUCTION



### Introduction

#### Welcome to the Transition Streets programme

You are about to embark (or for some, to continue) on your journey to a lower energy lifestyle. This will help you save money, reduce your carbon dioxide (CO<sub>2</sub>) emissions, and hopefully help minimise your household's reliance on fossil fuels.

The support of your fellow group members, and people in other Transition Streets teams, will help keep you motivated and make the experience pleasurable as well as effective.

This workbook has been developed to help you, and the people you live with, to make simple, practical changes to your home and to your habits. It brings together in one place over 35 money-saving actions. Each action gives clear, specific advice about how to carry it out including lots of useful hints and tips.

It is not the intent of this programme to duplicate all the sound, practical advice that is already available, but rather to bring it together into one simple place with a very local feel. Other sources that have been used are referenced for further information.

### Who's running this?

The programme is offered free to residents of Totnes & District thanks to funding from the Calouste Gulbenkian Foundation, the Big Green Challenge and the Ashden Awards.

Transition Streets, formerly known as Transition Together, has been created and is managed by, Transition Town Totnes.  
[www.transitiontowntotnes.org](http://www.transitiontowntotnes.org)

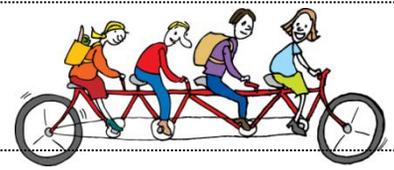


CALOUSTE  
GULBENKIAN  
FOUNDATION



# Transition Streets

## 1.5 HOW IT WORKS



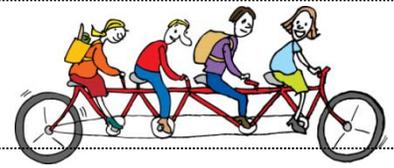
### How it works

The programme is based around 7 group sessions. The first and the final sessions start and close the work, and the other five cover areas of our lifestyle where we can easily reduce energy use, and save money: energy use in the home, water, food, waste and transport.

Usually the group meets about every 2-4 weeks for 2 hours, and people in the groups take turns to host this at their home. We send a facilitator to help you with the first meeting, and after then people take turns to facilitate each session, so that it is truly a group effort and not all driven by one person. Ideally, the host is not the co-ordinator too, or it's a bit too much to take on.

It is important that the co-ordinator for the session keeps good time, as it's easy to get off track, and not get through everything you mean to. At each of the 5 core sessions, the group can follow the suggested meeting outline provided at the end of this section. It's also useful to have a note-taker at each session and to keep a record of decisions.





The facilitator that we provide will help you get started. We suggest you take a look at the rest of this workbook and start to get familiar with the sections and the layout. Once you've done that, work through the following sections with the help of the next few pages:

- Agree the group schedule for the rest of the sessions.
- Share contact information.
- Agree some guidelines so that your group will work well together.
- Think about your main objectives.
- Complete the initial evaluation form.
- Find out about other support available.
- Review the agenda for future sessions.

A quick note on the cost and carbon saving estimates... each action has a set of red boxes at the top that give an indication of the potential costs, savings, effort and CO2 savings. These should be seen as an indication only and useful for comparing different actions. They are based on various credible sources of data, including the Energy Saving Trust and Waterwise.

Where we have quoted a specific potential cost saving for an action, this is based on average prices at the time. These can vary widely over just a few months, so please see these as indicative rather than precise.

Some actions, particularly related to food and transport, are difficult to estimate at all due to the wide range of factors involved. However, where we can, we will convert actions into both CO2 and financial savings and report back the overall results. More information is available on request.

Notes:







It is important to agree some guidelines for how your group will work, so it will be a more satisfactory experience for everyone. The following agreements are suggested to help ensure the overall success of your group.

They aim to support the unity and stability of the group, and to create an atmosphere of mutual support and trust. It is important all group members collectively agree to these at your first session. Add or amend items as required.

**Commitment:** We commit to attend all the sessions where possible and to let the other group members know where not possible. Someone else can attend in our place if we cannot come, but it is important that s/he knows what's been discussed previously. We also commit to have read the relevant workbook section before each session and to seriously consider taking on some actions each time.

**Confidentiality:** We agree to respect the privacy of any personal information shared within the meetings and to not discuss this information outside the group in a way that would mean a person could be identified.

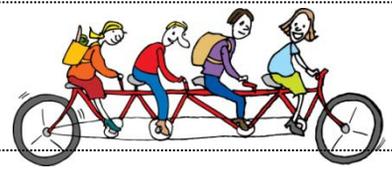
**Punctuality:** We agree to arrive in time for each session to start promptly so that everyone can benefit from the full two hours.

**Respect:** We will endeavour to ensure that the time is shared equally between team members in terms of speaking and listening, and that differences of opinion can be allowed for and respected. Our abilities to change will vary, whether it be related to income or time, age or disability.

**Support:** Where possible we will offer practical and emotional support to any team member who is experiencing difficulty in attending the sessions (or achieving the actions!). If we encounter problems in maintaining the team, we will ask for support from the project office.

# Transition Streets

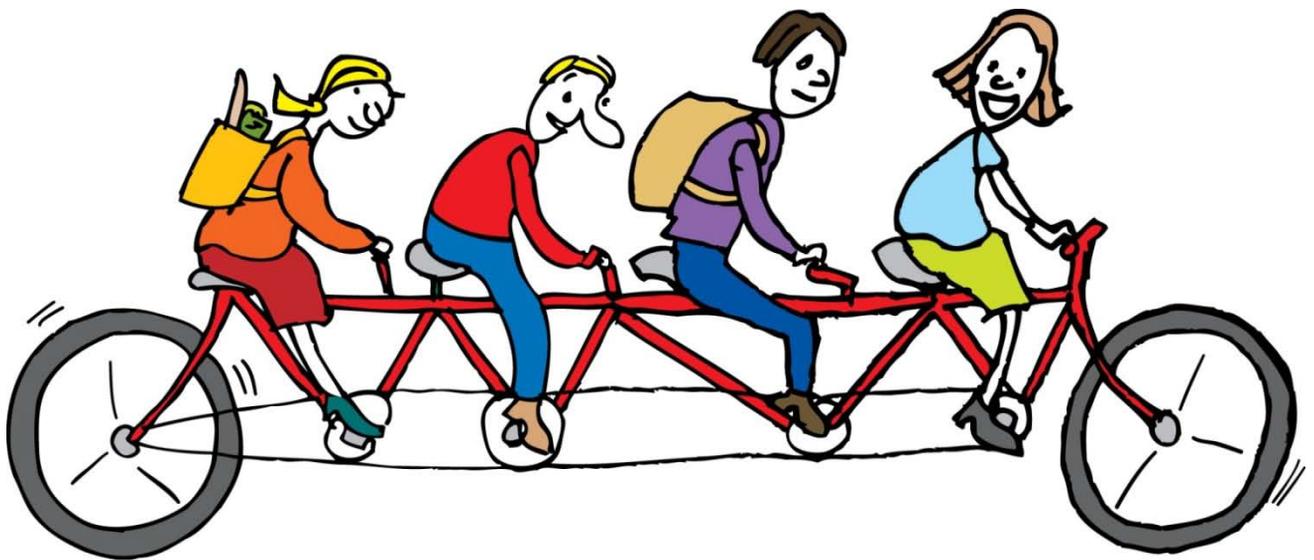
## 1.10 MORE SUPPORT



### Website

If you have internet access you will be able to visit [www.transitionstreets.org.uk](http://www.transitionstreets.org.uk).

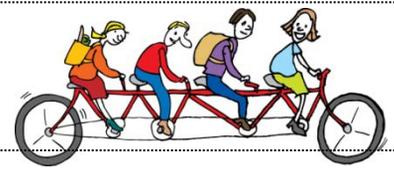
The website provides general information about the programme, stories from existing groups, a list of discounts offered, the schedule of any optional extra workshops and some frequently asked questions and answers.



### Hotline

If you have any questions about the programme, the actions or the other support on offer, please contact us using the information on the contents page at the front of this section.

We are willing and able to give advice to groups if you are concerned, frustrated or perplexed about the way your group is operating (or rather, not operating!).

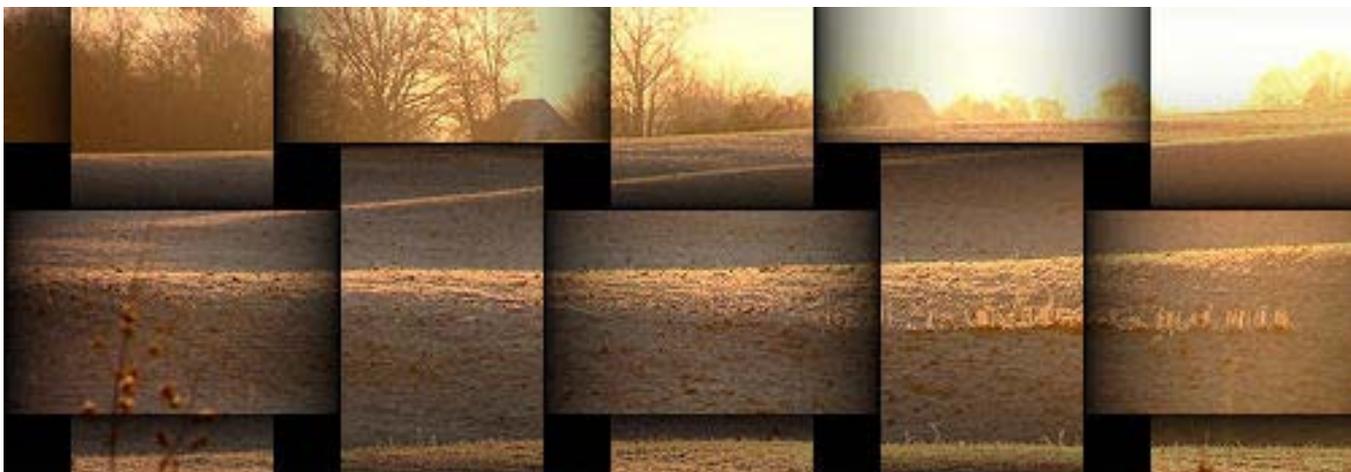


There is an optional workshop on offer to participants in Transition Streets groups.

The **Group Skills** workshop helps create and sustain healthy groups. It will give you the skills to work more effectively in your Transition Streets group (or any other group you belong to). It includes group development, group dynamics, conflict, leadership, decision-making, running good meetings, useful tools and techniques and facilitation skills. This is available for free and comes as a taster evening session, or a day-long workshop. To find out about scheduled dates or to book, call the Transition Town Totnes office on 01803 867358.

This workbook and programme has been written to help save money in the home, as well as to reduce our impact as a community on our natural resources and environment. The programme is part of a local community response to the challenges of rising energy prices, climate change and economic uncertainty. We have written a section at the back of the workbook for anyone interested in finding out more - see the final pages at the end of the folder. If you have any questions about the programme or workbook, or would like to give us any feedback, we welcome your input – contact us on 01803 867358 or email [transitiontowntotnes@gmail.com](mailto:transitiontowntotnes@gmail.com).

Also see [www.transitionstreets.org.uk](http://www.transitionstreets.org.uk) for more information.





### Suggested agenda

This suggested agenda can be used at the next 5 sessions. You can adjust it to suit yourselves: e.g. by spending more time on 'The Bigger Picture' discussion topics, and less on discussing the actions.

For the next session on energy, try the proposed timing below and see how it works for the group. Given that you are not starting your action plan until then, the first agenda item is not needed for the next session. You will probably use this 'spare' time talking about the actions. It's a good idea to nominate a time-keeper and possibly someone to take notes.

Section	Timing (2 hours total)
Review actions & progress from previous session	15 minutes
Discuss the facts & the actions for this session	70 minutes
Write personal action plan	10 minutes
The Bigger Picture – discussion	20 minutes
Re-confirm next meeting	5 minutes

### Acknowledgments

This workbook aims to bring together a wide range of credible, expert advice that covers cost savings, energy reduction, CO2 emissions reduction and general sustainability, across all areas of our lives. Our intent here is to compile this advice into a single, localised reference source for use by people in the Transition Streets programme – with clear links back to the source material used in each section.

The sources of information used include the Energy Saving Trust, the Soil Association, Waterwise, Sustrans, the BBC Bloom website, South Hams District Council and countless others we have referenced in each chapter to whom we offer our thanks.

## 2. Spend less on energy



As you know, energy prices are generally going up rather than down. Using less electricity, gas or oil in your home will save you money. Often we waste a lot of energy without realising, and there are generally significant savings to be made – without having to go without. Each action in this section of the workbook has a ‘Potential Savings’ section. But it’s not just you and your pocket that will benefit.

Using less energy will also reduce the amount of carbon dioxide (CO<sub>2</sub>) emitted from fossil fuels as they are burnt, either in your home’s boiler for your heat and hot water, or in a power station for your electricity. We all need to reduce our CO<sub>2</sub> emissions (our carbon footprint) if we are to minimise the potentially devastating effects of climate change.

The people who will most feel these impacts are not here in Totnes or even the UK – they’re living on flood plains and low-lying islands, in hurricane-prone countries and in areas of drought and famine. Each action you take will have a positive impact on your global community.

Finally, there is a finite supply of fossil fuels on this planet and our current cheap supply of them is dwindling (see the ‘Peak Oil’ reference section at the back of the folder).

For every 6 barrels of oil used, only 1 new barrel is found. Worldwide oil reserves are going into decline – while demand is growing (even during a recession). Those who minimise their reliance on coal, oil and gas now will be less exposed to higher prices and supply restrictions in the not-too-distant future.

Being more energy efficient in your home is one of the easiest ways to reduce your costs, your personal contribution to climate change and your vulnerability to fluctuating and increasing energy prices.

Each of these actions can significantly reduce the amount of energy a household typically uses. Some will cost you little or nothing, some can be paid for using grants and some will cost you money (but this should be offset by the reduction in your energy bill sooner rather than later).

- **Know how much you are using** (2.4)
- **Be a real turn off** (2.8)
- **See the light** (2.10)
- **Control your heat** (2.12)
- **Lagging** (2.16)
- **Draught proofing** (2.18)
- **Loft insulation** (2.20)
- **Cavity wall insulation** (2.22)



Each action is explained on the following pages. In your group, have a brief chat about all of them and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section (maybe just 1-2 actions for now).

The actions listed above are the basic, but most cost-effective, things you can do in your home. At the end of the section are several other actions that you may wish to consider, once you've done the basics.

Note: for all sections the following estimates are used

- Costs/savings: Low (Less than £10), Medium (less than £100), High (more than £100) - then used to imply related CO2 savings
- Effort: Low < 2-3 hours, Medium - about a day, High – a day +
- Estimates based on a 3 bedroom semi-detached home

**Cost: none**

**£ Savings: med**

**Effort: low**

**CO2 saved: med**

The energy challenge

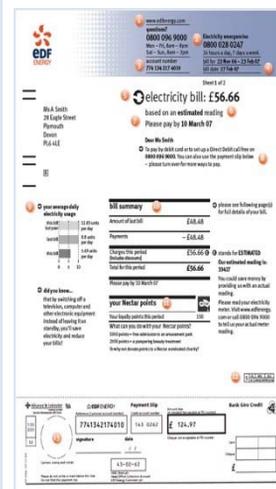
Most people are not very aware of how much energy they are using (i.e. the number of 'units'). Frequent price changes confuse the picture, as your bill could go up even though you are actually using less. Even if you take a look at your electricity or gas bill, things like kWh (kilowatt-hours) may not mean much to you.

Often the readings shown on bills are estimated and may not be correct. If we pay by direct debit, our regular monthly payment may not reflect how much energy we actually use, leading to a shock when this gets adjusted upwards. If we don't know how much we use, then we won't be able to tell if we are using less, or to plan how we can. Nor will we know if we could get a lower price from shopping around.

Potential solutions

To help reduce your energy use, you first need to measure it so you will be able to tell if it goes down. There are 2 ways to monitor your energy use:

- 1. Read your own electric & gas meter(s) regularly and keep a record.** There's a wide variety of meters around - older ones with numbers on dials or newer digital versions. Read the numbers from left to right. This tells you how many units (kWh) of gas or electricity you have used. These units can mean different things depending on whether it's electricity or gas, and if it's the latter, depending on the type of meter (whether or not it measures in 'metric' gas units! ) See next page.
- 2. Use an electricity monitor** - you can buy simple, safe devices that easily clip onto your meter's cable. They give you up-to-the-minute info about how much electricity you are using & how much it is costing you (along with CO2 emissions info.).



### Your savings

Studies have shown that people who monitor their energy use typically see reductions of 5-10% per year (£40-80), just by being more aware of when things are on & how much each appliance uses. <sup>(1)</sup>

#### Notes:



Save £40-80 of your electricity costs per year.

### Next steps, hints & tips

- Start recording your gas and electricity meter readings.
- Write them down at same time each week or month.
- Subtract the previous reading from the new one to see how many kWh you have used (see over).
- Compare it to previous periods to see if and why it's changed.
- Call your supplier or check their website if it's not clear how to read your meter(s).
- Or invest in an electricity monitor. They cost about £30-£50 (see over).
- Log on to [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) and complete their online Home Energy Check for a personalised report of potential savings for your home.
- You could also call them on 0800 512012 and ask for a paper version.
- Once you know your usage, shop around for the best prices and consider 'green' energy – see final section.

**Yes but... I can't read my meters.** If you are disabled, chronically sick or of pensionable age you can ask your supplier to read your meter every 3 months. You could also be eligible for the repositioning of the meter. This should be free of charge.

**Some brands of energy monitor currently on the market**

- OWL Energy Monitor (about £33)
- Efergy Smart Meter (about £45)

**Online shops**

- [www.nigelsecostore.com](http://www.nigelsecostore.com)
- [www.ethicalsuperstore.com](http://www.ethicalsuperstore.com)
- [www.maplin.co.uk](http://www.maplin.co.uk)



When you first install your meter, you'll probably wander around the house turning things on and off, and marvelling at the information at your fingertips! It's quite addictive.

They're possibly also available in local shops – if you find them around here or online cheaper, please let us know and we can spread the word. Some energy suppliers give free monitors with certain tariffs – call yours and ask. The project office has 2 meters that can be rented out for 50p per day, and the Totnes Library have 6 plug-in appliance meters for loan. You may want to borrow or buy a monitor between you in your group, and use it for a week each in turn. This gives you time to find out what each appliance/light uses, and your typical daily use.

Then you could simply read your electricity meter to see your consumption every week or month, when you don't have the energy monitor yourself.

You can also buy a simple plug-in monitor for about £15, which you plug in between you appliance and your wall socket (like a plug adaptor you take on holiday) to see how much energy it's eating up. Use this to go around the house noting down how much power any appliances with a plug uses when switched on and when they are on standby. Do this once and you will have a much better idea of where you are wasting energy, and where you are not.

## Sample meter reading record

Date	Electricity Meter Reading	Usage
01/12/2008	1037	n/a
08/12/2008	1101	64
15/12/2008	1199	98
22/12/2008	1298	99

**Understand how to measure energy use:**

Kilowatts (kW) measure *power* – the rate at which we use energy. Kilowatt hours (kWh) measure *energy* consumed. Power is akin to speed, and energy is akin to distance – as we all know, the faster you go, the more quickly you cover a given distance. Similarly, the more power you use, the faster you consume a given amount of energy. So, if you consume power at 1kW, you will have consumed 1kWh after one hour. The units on your electricity meter measure kWh: one electricity ‘unit’ is equal to one kWh.

Approximately every 40W of power you use on standby (i.e. being used 24 hours a day) consumes 1kWh a day, which costs about £50 a year. Many houses typically use 200W on standby, or about £250 a year.

Gas is more complicated because the “units” that the meters measure are for a volume of gas. The number of kWh per gas unit depends on whether your meter is metric or not – it will say on the meter if it is a metric one. Your gas bill will show the conversion factor your supplier is using.

For old non-metric meters, one gas unit = 31.375kWh

For newer metric meters, one gas unit = 11.151kWh

# Transition Streets

## 2.8 BE A REAL TURN-OFF

The Practical  
Action Plan

Cost: none

£ Savings: med

Effort: low

CO2 saved: med

### The energy challenge

Leaving lights, TVs, computers and radios on when there's no one in the room is an obvious waste of money and energy. But even when we switch things off some appliances go to standby mode, which can still consume a lot of energy. Even phone chargers, if left plugged in, will use a little energy, whether or not you're not charging your phone.

In the UK around 15 million TVs alone are left on standby for 20 hours per day. If they were all switched off, we'd save enough energy to decommission an entire power station. <sup>(2)</sup>

Unplugging one electric toothbrush or phone charger might not seem such a big deal: but what about that DVD player... and the microwave, and the printer, and the games console, and the digital radio? This adds up to significant savings over a year, if you have a lot of equipment on standby, particularly if they are older appliances.



### Solution

Turn things off when you leave the room for more than a few minutes. Turn them off at the plug when not in use. If you need to leave lights on, such as an outside light, use an energy efficient bulb. You can buy remote control 'standby savers' from about £10 which cut power to all connected devices with the press of a single button.

**Yes but... I can't turn off my TV's set-top box.** Many Freeview boxes can be turned off but the boxes which can record programmes must be left idling around the clock, costing you up to £15 per year. Integrated digital TV sets or the more expensive models generally use less energy on standby.

### Your savings

In a typical home, turning your appliances off rather than using standby can save up to 8% (£64) off your annual electricity bill. <sup>(3)</sup>

**Saves £64 off an average electricity bill per year. Costs nothing!**

Notes:



### Next steps, hints & tips

- Talk to everyone in your home – try competition to help motivate them.
- Keep a scoreboard on the fridge for every time someone finds a light or TV on, with no one there.
- Then motivate your kids with a potential share of the savings!
- Buy a standby saver (see providers on page 2.6)
- You can use an energy monitor to see exactly how much power each item is using when on, or in standby mode – see previous action.
- Also – just try using things less. Dry clothes in the sun not the tumble dryer, turn lights off in the daytime, only wash full loads etc.

More info: download 'Rise of the Machines' from [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) – fascinating insight into the growth of energy-using products in the home since the 1970's.

# Transition Streets

## 2.10 SEE THE LIGHT

The Practical  
Action Plan

Cost: med

£ Savings: med

Effort: low

CO2 saved: med

### Energy challenge

Right now, most of the 600 million light bulbs in UK homes are inefficient tungsten filament bulbs. 90% of the energy they use is given off as heat, not light!<sup>(4)</sup> Switching to energy saving light bulbs will reduce your bills, as they use about a quarter of the power of tungsten bulbs, i.e. a 15W bulb is equivalent to an old 60W one<sup>(5)</sup>.

Divide the wattage of your current tungsten bulb by 4 to get a more accurate estimate of the correct low energy equivalent. It's worth buying reputable makes, such as Philips or Osram, rather than the discounted brands, which often perform less well and can take a long time to reach full brightness. Choose "warm white" bulbs for a less harsh light.



### Solution

The following energy saving light bulbs are available:

- **Compact fluorescent lamps (CFLs):** these are most common - in stick or candle shape, small or medium screw and bayonet fittings.
- **Energy-saving halogen light bulbs / lower wattage bulbs:** a good option if you have halogen lights in your home. They consume around 30% less electricity than standard halogen bulbs. All halogens are about 25% more efficient than tungstens. You can often replace 50W halogens with 20W ones – they will still provide plenty of light in most situations, if you are unable to change to compact fluorescent halogen replacements.
- **LED lights:** this technology is progressing rapidly and can now sometimes replace existing halogens.

**Yes but... I have dimmer switches.** If you have a dimmer switch you can buy special dimming energy saving light bulbs (though they can be quite expensive). There are even candle-shaped energy saving light bulbs to fit in chandelier light fittings.

# Transition Streets

## 2.11 SEE THE LIGHT

### Your savings

Fitting just one energy saving light bulb can save you about £3-£6 a year. Energy saving light bulbs are a little more expensive than filament ones - typically costing around £2 - but you'll easily make back the difference on your electricity bill. They last up to 10 times longer than filament bulbs. An average home has 25 bulbs - if all replaced this will save about £45 per year. <sup>(6)</sup>



**Saves £3-£6 per light bulb per year. Cost about £2 each. Lasts much longer!**

### Recycling bulbs

Low-energy bulbs last longer than traditional ones, and they are also recyclable (unlike filament ones). The Totnes Recycling Centre will take used low-energy bulbs and safely deal with the mercury content.

### Notes:

### Next steps, hints & tips

- Look at the lights in your house. Starting with the brightest and those used the most, consider replacing filament or halogen bulbs with a low energy alternative.
- Book the T.Streets 'Low Energy Bulb Sample Box' and try before you buy – Phone 01803 867358.
- You tend to get more choice online e.g. From local company [www.efficientlight.co.uk](http://www.efficientlight.co.uk) who offer a 10% discount to T.Streets team members – use code 'TTT' at checkout (other suppliers on page 2.6)
- Or when a bulb goes – see if you can live (safely) without replacing it at all.

Bulbs of 40W and above have already started to be phased out.  
For more info: [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) : energy saving products

# Transition Streets

## 2.12 CONTROL YOUR HEAT

The Practical  
Action Plan

Cost: none

£ Savings: med

Effort: low

CO2 saved: med

### Energy challenge

Boilers and heaters account for two-thirds of the energy used in our homes<sup>(7)</sup>, so changing the settings just a little can have a big impact. However, many of us don't know how to use the heating controls effectively – mastering them can make a big difference to our pockets.

Research shows that in the UK, we've increased the temperature of our homes by 5°C since the 1970s - so there's plenty of scope for improvement.<sup>(8)</sup>

### Solution

You may already have a full set of heating controls in your home - but are you getting the best from them? Take a little time to find out what each control does by referring to the instruction manuals that came with them. If you don't have any manuals to hand, copies can usually be downloaded from the manufacturer's website, or call and ask them to send you a printed copy. (See the summary guide of common controls systems over the page).



**Yes but...I like being cosy at home.** At what price? You can often achieve the same effect by wearing more clothes. You could also try draught-proofing or fitting additional insulation to keep more of your heat inside: see later actions. It's amazing how quickly your body gets comfortable at a slightly lower temperature, especially if you lower it gradually.

### Your savings

For every degree you turn it down by, you can save about 10% of your total heating bill! (About £40 per degree turned down for the average UK home.) <sup>(9)</sup>

If you fit the correct heating controls, it could typically save you around 17% of your heating bill in total.



**Saves 10-17% of your heating bill.**

Notes:

### Next steps, hints & tips

- Set your thermostat to 18°C. Of course it depends where the thermostat is - make sure it's not in a cold hallway that maybe you don't need to heat.
- Dig out the instructions for the central heating programmer.
- Set the heating to come on 20 minutes before you get up, & go off 15 minutes before you leave home.
- Your hot water cylinder thermostat should be set at 60°C or 140°F. Any higher is a waste of energy and can scald, any lower and there may be risk of legionella.
- Upgrade to a more intelligent digital thermostat. It will cost around £90. Basic ones cost £35.
- Heat the rooms you use most, rather than the whole house - radiator valves (TRVs) will help.
- Turn the heating off when on holiday - in winter set it for twice a day for 30 minutes at a low temp.
- Keep curtains and furniture away from radiators to let heat circulate.
- Set the temperature lower in the bedroom at night, it helps you nod off and promotes deeper sleep.

### Heating controls – an overview

#### What is a programmer?

Programmers allow you to set when the heating and hot water come 'On' and go 'Off' again. By installing a programmer, and heating your home and hot water only as and when necessary, you will save energy and money. If you have a hot water tank, many timers don't allow you to set different on/off times for water and room (space) heating. It may be worth replacing it with one that does, particularly if you live alone.



#### What is a room thermostat?

This constantly measures the air temperature of a space and can be set to whatever temperature suits you best. They are usually in halls, stairs or landing areas. When the temperature falls below the setting, the thermostat switches on the central heating: once the room reaches the set temperature, the thermostat switches the heating off. Please note that the timer or programmer needs to be switched on for the thermostat to work.



#### What is a programmable room thermostat?

A programmable room thermostat lets you choose the times you want your home to be heated and the temperature you want it to reach while it is on. In other words, it allows you to heat rooms or the whole house to different temperatures at appropriate times of the day and week. And again, by heating your home and hot water only as and when necessary, it can save energy and money too.



## Heating controls – an overview

### What is a cylinder thermostat?

A cylinder thermostat keeps a constant check on the temperature of the water in a hot-water cylinder. It switches the heat supply from the boiler on and off as necessary to keep the water at a set temperature.



### What are thermostatic radiator valves (TRVs)?

TRVs sense the air temperature around them and regulate the flow of hot water to keep a set temperature in a room. Again, they can help you save money and energy - by allowing different temperatures in some rooms than in others, and to turn off the heating in rooms that aren't used.

In the majority of cases TRVs can not turn off the boiler when the whole house has reached the right temperature. To do that, you will need a room thermostat as well. Radiators in the space containing the room thermostat should not normally have TRVs. But if they do, you should keep the TRVs on their highest possible settings, and set the room thermostat to the required temperature instead. By installing TRVs, you could save around £10 a year and around 45kg of CO2 a year.



More info: see [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) in the home improvements: heating and hot water section or call 0800 512 012 for help or printed info.

Cost: med

£ Savings: med

Effort: med

CO2 saved: med

## Energy challenge

Many hot water tanks in our homes are not sufficiently lagged. This means that heat is continually being lost, and your boiler has to work harder to keep the stored water to the desired temperature. Heat is also lost from pipes that carry hot water around your house. In some places this is ok (e.g. through a cupboard that is used to dry laundry) but often, it's just more unnecessary and expensive heat loss.



## Solution

Both tank and pipe insulation will keep your water hotter for longer by reducing the amount of heat that escapes – by up to 75% <sup>(10)</sup>. This reduces your fuel bill and saves you money. Wrapping hot pipes in foam sleeves stops them losing heat through contact with cold air. Both tank and pipe insulation is cheap and easy to fit, so this is a DIY option even if you're renting.

**Yes but... I can't access most of my hot water pipes.** If you can afford it then get professional help. Otherwise just do the ones that you can easily reach. It's often easier to access pipes when you're doing refurbishment work.

Notes:

### Your savings

A hot water tank jacket costs about £12 but saves you about £40 per year. <sup>(11)</sup>

Insulation for hot water pipes will cost about £10 and save you around £10 a year. <sup>(12)</sup>

### Next steps, hints & tips

- Touch your hot water tank. If it feels warm, it needs a jacket.
- Measure and write down the height of the tank to the top of its dome, and its diameter. (Two standard sizes are 900mm x 450mm and 1,050mm x 450mm)
- Fit a BS Kitemarked insulating jacket (75mm or 3 inches thick) around your hot water tank.
- Feel your water pipes and consider lagging those that are hot – buy foam tubes and fit to pipes.
- See [www.diydata.com](http://www.diydata.com) for guides



**Save £50 a year with  
a one-off investment  
of £22**

More info: see [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) in the home improvements: insulation section or call 0800 512 012 to request printed information.

# Transition Streets

## 2.18 DRAUGHT-PROOFING

The Practical  
Action Plan

Cost: med

£ Savings: med

Effort: med

CO2 saved: med

### Challenge

If you can feel cold air coming in around the windows in your home it means warm air is escaping. Sitting in a draught doesn't just give you a pain in the neck; in a typical home 20 per cent of all heat loss is through ventilation and draughts. <sup>(13)</sup>

**Save about £30 a year. Costs about £20-150 to buy.** <sup>(14)</sup>



### Solution

A draughty house is quickly and cheaply remedied by a visit to the DIY shop. Once it's snug, you'll start saving cash and CO2 as well as feeling more warm and comfortable in your home. Draught-proofing simply fills gaps and decreases the amount of cold air entering your home.

There are several types of materials available from DIY stores including brushes, foams and sealants, strips and shaped rubber or plastic. Check the quality of the products. It will affect their performance and durability. They should conform to the standard BS 7386.

**Yes but... doesn't my house still need to breathe?** Once the draughts are plugged, it's important the house is still ventilated. In kitchens and bathrooms, you might need an extractor fan if condensation is a problem

### Next steps, hints & tips

- Find out where the draughts are coming from: gaps between floorboards and around door frames, loft hatches, windows and pipes are the main culprits.
- Measure up external doors and windows and buy draught seals from the DIY shop. Seals are usually made from self-adhesive foam, rubber or brush material.
- Get a brush-style draught excluder for your letter box.
- Seal unused chimneys with newspaper or a purpose-made chimney balloon which inflates to block up your chimney. Remember to take them out again should you decide to use your chimney.
- Draw your curtains at dusk for extra draught exclusion, and keep them behind radiators, otherwise you're just heating the window.
- Curtains wearing thin? Sew a layer of heavy lining material inside them or pay someone to do it for you. Charity shops often have cheap curtains.
- Windows still draughty, but can't afford double glazing? Cover them in a clear plastic film (available at DIY shops) that tightens over the pane when heated with a hairdryer.
- If you have wooden floorboards, fill the gaps between and around them with an acrylic sealant (you can also insulate underneath the floor).
- Call the project office and ask about local Draught-Busters workshops.

Notes:

More info: see [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) in the home improvements: insulation section or call 0800 512 012 to request printed information.

# Transition Streets

## 2.20 LOFT INSULATION

The Practical  
Action Plan

Cost: high

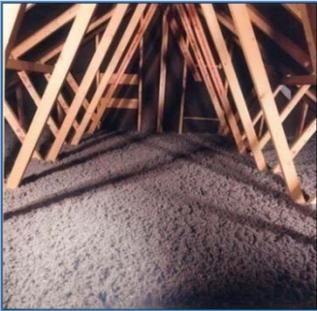
£ Savings: high

Effort: med

CO2 saved: high

### Challenge

In an un-insulated home a quarter to a half of your heat is lost through the roof. <sup>(15)</sup> Insulating your loft is a simple and effective way to reduce your heating bills and you can even do it yourself. Already got insulation? Well, you're getting warmer but more than six million homes in this country have 7.5cm of insulation or less (27cm is the current minimum). As a rule of thumb, loft insulation should be double the height of the attic joists. <sup>(16)</sup>



### Solution

Insulation acts as a blanket, trapping heat rising from the house below. Insulating material is simply laid over the floor of the loft, between and then over the joists if they are visible. Protective clothing, gloves and masks should be worn. Care must be taken to insulate around the top and sides of any cold water tank, as well as around pipe work. Also, try not to compress the insulation in tight corners or eaves. Walk boards can then be laid over the joists to provide safe access from the loft hatch to any water tanks (if present).

Loft insulation can be carried out as a DIY task or by a professional installer. There are many grants and special offers available to help you pay for loft insulation.

**Yes but...I don't know which materials to use.** All the insulation materials listed on the Energy Saving Trust website have their own strengths and weaknesses, and their suitability for you will depend to an extent on the nature of your loft space - but all of them are a better bet than not insulating it at all. There are natural and recycled material options available.

# Transition Streets

## 2.21 LOFT INSULATION

The Practical  
Action Plan

### Your savings

If you currently have no loft insulation and you install the recommended 270mm depth you could save around £205 per year on your heating bill (assuming you get the grant available from the major energy suppliers)<sup>(17)</sup>. Do it in spring or summer and get ready for next winter.

Notes:

**Save £205 per year.  
Costs £250 (incl.  
grant). Pays for  
itself in less than 2  
years.**

### Next steps, hints & tips

- Check your existing insulation - if it's much less than the recommended 27cm, you should definitely consider topping it up.
- Any electric cables should be lifted above the insulation.
- You mustn't cover halogen lamps in the loft (protruding through the top floor ceiling) – it is better to replace these if possible
- Decide whether you want to install it yourself or get a professional to do it. Consider which material you prefer.
- Check your eligibility for grants at the EST website (see below).
- If you're opting for DIY, see the Energy Saving Trust website for a step by step guide.
- You can still insulate if you have a flat roof. See the EST website for more details.

More info: see [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) in the home improvements: insulation section or call 0800 512 012 to request printed information.

Cost: med

£ Savings: high

Effort: med

CO2 saved: high

## Challenge

In most houses built after the 1920s, the external walls are made of two layers with a small air gap or 'cavity' between them. If your home has unfilled cavity walls, a considerable slice of your energy bills will be spent heating the air outside. In fact, about a third of all the heat lost in an un-insulated home is lost through the walls. Cavity wall insulation is a simple, fantastic way to significantly reduce the amount of energy you need to heat your home.

## Solution

Filling the gap between the two walls of a house with an insulating material significantly decreases the amount of heat which escapes through the walls. It will help create a more even temperature in your home, prevent condensation on the walls and ceilings and can also reduce the amount of heat building up inside your home during summer hot spells.

It can normally be applied from the outside through small holes drilled in the wall. It's a simple process and is normally completed within three hours, without damage or mess to your house or garden. Be sure to get advice from a reputable installer who offers a long-term guarantee.



**Yes but... why spend all this when I'm going to sell my house anyway in the next few years?** You will need an Energy Performance Certificate to sell your home and cavity wall insulation will increase your efficiency rating, potentially adding value to your home.

# Transition Streets

## 2.23 CAVITY WALL INSULATION

The Practical  
Action Plan

### Your savings

Cavity wall insulation can save you about 15% on your fuel bills, or £115 per year. It typically costs about £250 to install (including subsidy). <sup>(18)</sup>

Most energy suppliers provide loft and cavity wall insulation for free to those aged over 70 or in receipt of certain benefits. You will know it's worked when your heating energy use goes down as shown on your bills/meter.

Notes:



**Saves £160 per year  
on your heating bill.  
Costs £250 (incl.  
grant). Pays for itself  
in less than 2 years.**

### Next steps, hints & tips

- First of all, find out if you have cavity walls.
- Indicators include bricks all of the same length, a house built after the 1920s and walls thicker than 265mm (10 inches).
- If you think you have cavity walls, or you aren't sure, then **call the Energy Saving Trust on 0800 512 012** for advice, to find a local installer and to see which grants you may be entitled to.

More info: see [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) in the home improvements: insulation section or call 0800 512 012 to request printed information.

# Transition Streets

## 2.24 YOUR ENERGY ACTION PLAN

Reminder

Possible actions:

- Know how much you are using (2.4)
- Be a real turn off (2.8)
- See the light (2.10)
- Control your heat (2.12)
- Lagging (2.16)
- Draught proofing (2.18)
- Loft insulation (2.20)
- Cavity wall insulation (2.22)

**What other ideas does your group have that aren't covered above?  
Add them below if you think they are relevant for you...**

My actions	Previously done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List group actions here (with named person & due date)...



As we have seen, most energy is wasted in heating inefficient buildings, not on devices on standby. But all these actions together play a significant part in saving you money, as well as reducing our energy consumption – which means fewer fossil fuel power stations being built to supply us with energy, be they coal, nuclear, oil, or gas.

Just by turning off appliances on stand-by, we can save up to £37 per year. That may not sound like much but if we all cut this out, we would save enough electricity to power a massive 1.2 million homes every year .

- What are the real reasons for us continuing to do them?
- Why is it so difficult to stop?
- What do you think you will need to do to change these habits in your home?

Notes:

References in this section have been numbered in the text and are from:

1. There are several studies showing that display units can cut average energy bills, and hence emissions, by about 12% ([http://property.timesonline.co.uk/tol/life\\_and\\_style/property/interiors/article3495890.ece](http://property.timesonline.co.uk/tol/life_and_style/property/interiors/article3495890.ece)) Or 5-10% with smart meters per EST (<http://www.energysavingtrust.org.uk/Resources/Features/Features-archive/Smart-meters-your-questions-answered>)
2. BBC in Bloom - [www.bbc.co.uk/bloom/actions/energymeters.shtml](http://www.bbc.co.uk/bloom/actions/energymeters.shtml)
3. BBC in Bloom website
4. - 6 . Energy Saving Trust website - [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)
7. & 8. [www.bbc.co.uk/bloom/actions/heatingcontrols.shtml](http://www.bbc.co.uk/bloom/actions/heatingcontrols.shtml)
9. [www.bbc.co.uk/bloom/actions/heatingcontrols.shtml#quickjump](http://www.bbc.co.uk/bloom/actions/heatingcontrols.shtml#quickjump)
- 10.-12. [www.bbc.co.uk/bloom/actions/watertankjacket.shtml#quickjump](http://www.bbc.co.uk/bloom/actions/watertankjacket.shtml#quickjump)
- 13.-18. Energy Saving Trust website - [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)

The following pages are for reference information only, and don't need to be discussed at the energy session.

## Overview and where to go for more information

You may want to explore these actions **once you've done the basics** outlined in this workbook. They tend to take more effort and/or more investment with a longer payback period. However, they can significantly further reduce your energy use and your carbon footprint.

### **Buy a new, condensing boiler**

Boilers account for around 60% of the carbon dioxide emissions in a gas heated home. By fitting a new high efficiency condensing boiler and improving your heating controls, you will significantly cut your home's carbon dioxide emissions and could save as much as £275 a year. See <http://www.energysavingtrust.org.uk/Home-improvements/Heating-and-hot-water> for more information and advice.

### **Fit double-glazing**

Double glazing cuts heat lost through windows by half and installing double glazing can save around £140 a year on your heating bills. Double glazing can save a household around 720kg of carbon dioxide (CO<sub>2</sub>) a year. See <http://www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Glazing> for more information and advice.

Does your house have double-glazing that needs updating? Windows are a complex subject – triple glazing is now a popular way to replace windows, and maybe well-worth considering.

### **Solid wall insulation**

Solid walls can lose heat just like cavity walls; the only way to reduce this heat loss is to insulate them on the inside or (much better) on the outside. It's not cheap, but you will soon see the benefits to your heating bill and it's another way of playing your part in reducing carbon dioxide (CO<sub>2</sub>) emissions. There are two types of solid wall insulation: external and internal.

See <http://www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Solid-wall-insulation> for more information and advice.

## Overview and where to go for more information

### Floor insulation

Timber floors can be insulated by lifting the floorboards and laying mineral wool insulation supported by netting between the joists (saving you around £50 a year). You can also use a regular tube sealant, such as silicone to fill gaps between floorboards to stop draughts (saving you about £25 a year). About 400kg of CO<sub>2</sub> a year can be saved by combining both these measures [www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Floor-Insulation](http://www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Floor-Insulation).

### Explore options for renewable energy

Renewable energy technologies like solar panels (for hot water or for electricity), wind turbines, and biomass heaters are becoming increasingly popular in the home. These are effective alternatives to fossil fuels and will help you to meet your own energy requirements and reduce your home's CO<sub>2</sub> emissions. They can be expensive, with payback periods of 5-10+ years (at current energy costs). Search for grants on the [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk) website or call 0800 512 012. Also see Renewable Energy for Devon at [www.re4d.org](http://www.re4d.org) or call them on 01752 235 185 for support and advice on grants, local installers etc. For advice about renewable energy options to suit your needs, also see [www.yougen.co.uk](http://www.yougen.co.uk).

### Switch to a renewable/green energy provider

Switching to a renewable energy supplier reduces demand for fossil fuel and creates demand for renewable technologies. It supports new jobs in this industry that is so critical to dealing with climate change. Most energy suppliers offer 'green' electricity tariffs. These seek to support renewable energy in the UK. There are many green tariffs on the market, each supporting renewable energy in different ways.

Check out the questions you should ask your potential green supplier at [www.energysavingtrust.org.uk/Generate-your-own-energy/Green-electricity](http://www.energysavingtrust.org.uk/Generate-your-own-energy/Green-electricity). Find the best green supplier for you at [www.greenelectricity.org](http://www.greenelectricity.org).

# 3. Spend less on water



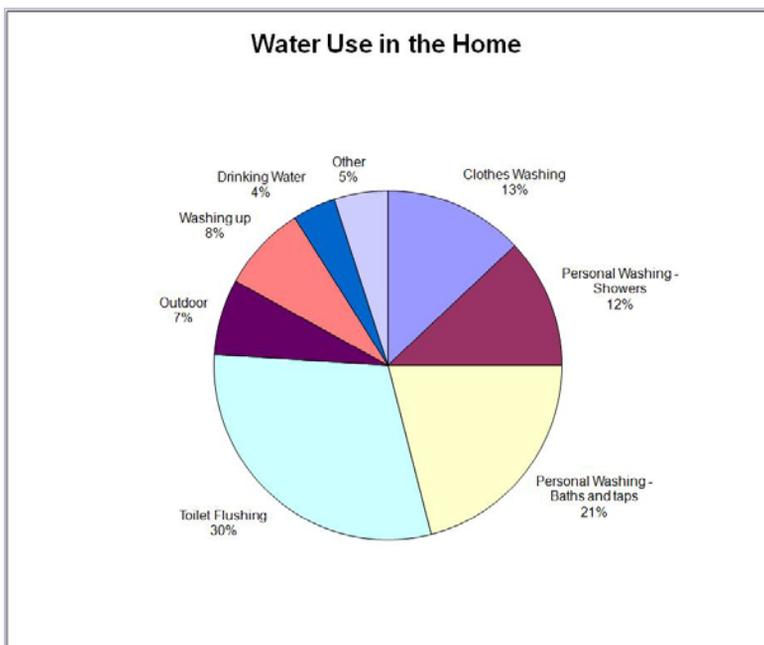
Each person in the UK currently uses about 150 litres of water every day, and this average has been rising consistently since the 1930's. <sup>(1)</sup> This consumption level is not sustainable in the long-term. If we do not take action now, climate change, population shifts and wasteful behaviour means facing increased water stress in the future.

Although it seems to rain here a lot, in fact the UK has less available water per person than most other European countries. London is drier than Istanbul, and the South East of England has less water available per person than Sudan and Syria. Most parts of the UK have experienced drought in the past decade. <sup>(2)</sup>

About 1/3 of the water we use each day runs down the plug hole or toilet without being used <sup>(3)</sup> – this is what we want to cut down. The key to water efficiency is reducing waste, not necessarily restricting your use. You can easily reduce waste by making small behavioural changes and by choosing more water efficient products.

Saving water will not only help reduce environmental impacts - if you are on a water meter it will save you money on your water bill, and using less hot water will save you money on your energy bill too (see page 3.6 to see if you'd be better off on a meter).

Typical household water use over 12 months



Each of these actions can significantly reduce the amount of water that your household uses. Even if you are not on a meter, it is important to conserve this most precious resource, and to consider the related CO2 emissions that come from the processing and pumping of all the water that we waste.

Some of these actions will cost you little or nothing, and some will cost you a little money (but this should be offset by the reduction in your water bill).

In your group, have a brief chat about the items and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

- **Know how much you are using** (3.4)
- **Feeling flushed** (3.8)
- **Taps, drips & leaks** (3.12)
- **Showers & baths** (3.14)
- **Washing clothes** (3.16)
- **The kitchen sink** (3.18)
- **Outdoors** (3.20)



The actions listed above are the basic (but most cost-effective) things you can do in your home. At the end of the section are several other actions that you may wish to consider, once you've done the basics.

Notes

Cost: none

£ Savings: low

Effort: low

CO2 saved: low

## Challenge

As we saw in the energy section, we can't manage something if we can't measure it. Relying on twice yearly meter readings from SWW does not give us much information about our water consumption, or if it is going up or down as a result of the actions we are taking.

Plus once you know how to read your meter, you can also do regular, simple checks for leaks.



## Solution

Read your own water meter regularly. Just being more aware of how much water you use will have a positive impact on your household's water wastage. It shows you the actual results and savings from all your efforts with the other actions in this section.

This is generally a little more hassle than reading your electricity or gas meter, as water meters tend to be located in the pavement outside your property. They are usually in a special meter box, under a metal cover that you need a screwdriver to lever up. Or your meter may be inside your property close to where the water service pipe enters it. See page 3.7 for advice on reading your meter.

To check for leaks, read your meter just before you go away for a few days, then read it again as soon as you get back. Assuming nothing in the house should have been using water, you can quickly tell there's a leak somewhere as your meter will have gone up in your absence.

**Yes but... I have no idea where my meter is.** If you can't find your meter then call SWW on 0800 169 1133 and they will be able to tell you where it is.

## Sample water meter readings log

Date	Water Meter Reading	Usage
01/12/2010	3785	n/a
08/12/2010	3792	7
15/12/2010	4000	8
22/12/2010	4007	7

Notes

## Next steps, hints &amp; tips

- Complete the usage calculator on page 3.24 to estimate your annual consumption. Compare it to the average of 150 litres per person per day.
- SWW suggests that you check your meter at least monthly, particularly if your meter is located outside your property. You pay for leaked water.
- If you're making changes to reduce water use, try reading your meter weekly for a while, and see what difference it's making. Use the sample water meter readings log provided above.
- Keep the log visible – stick it on the fridge so everyone in the household can see it. You may consider rewarding everyone for their efforts by sharing some of the savings.
- If there's more than one meter outside your house, check the meter number against the number on one of your bills to make sure you're reading the right one.

More info: see SWW's guide to reading your water meter on later page. Download 'Metering FAQ' from [www.southwestwater.co.uk](http://www.southwestwater.co.uk) or call them on 0800 169 1133.

### Would it be cheaper for me to be on a water meter?

Here in the South West 73% of all the homes are metered (higher than the national average)<sup>(4)</sup>. But that still means over a quarter of homes here are still being charged water rates, where price is fixed depending on a home's 'rateable value', and the amount of water used is irrelevant to price.

The average water bill in England and Wales is £339. Here in the South West (supplier South West Water,) the average bill is £486, but the average metered bill is £394<sup>(5)</sup>. Our region has the most expensive water in the country (Ofwat say this is mainly due to costs of keeping our extensive coastline & beaches clean, plus having only a small rural population over a large area to pay the costs) and it's well worth figuring out if it's cheaper for you to go onto a meter.

Note that you are charged for every cubic metre (1,000 litres or 220 gallons) that you use, plus you are also charged for 'sewerage' or for the removal and cleaning of waste water. Current SWW metered charges are on average about £4.71 per 1,000 litres. <sup>(6)</sup>

So how can you tell if you'd be better off on a water meter? As a rough rule of thumb, if there are more bedrooms in your house than people, you should consider getting a meter. For a quick online calculation try the calculator at the Consumer Council For Water [www.ccwater.org.uk](http://www.ccwater.org.uk).

SWW also offer water-saving kits and advice to help reduce your usage. You have up to 12 months to request a switch back to the rated system.



[Courtesy of SWW]

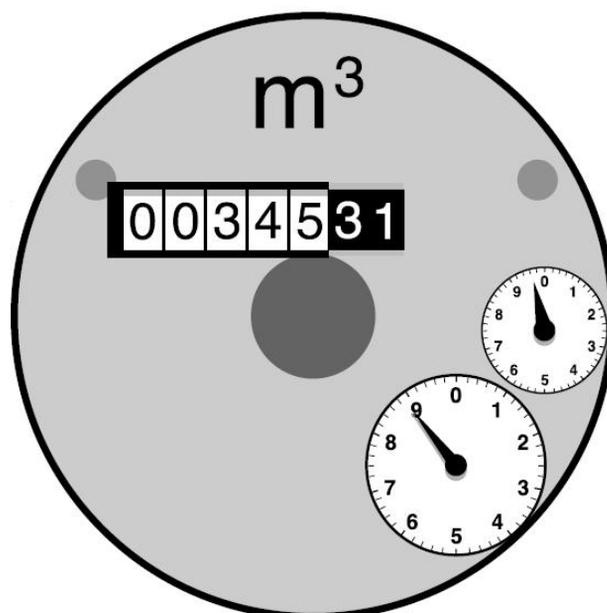
Once you have lifted the cover on the meter box you may see a polystyrene plug which protects your meter against frost. Please remove it to read your meter but remember to replace it afterwards.

There are two sets of numbers: black numbers on the left and red numbers on the right. The black numbers record the amount of water which has been used in cubic metres. The red numbers represent fractions of a cubic metre.

We only use the black numbers for billing purposes. Therefore if you are reading the meter to correct what you believe is an inaccurate estimate, you only have to tell us the figure recorded by the black numbers. For example, the reading on the meter in the picture below would be 345 cubic metres.

Please telephone our Accounts Helpline free of charge on 0800 169 1133 (for Minicom users only 0800 169 9965) if you have any difficulties in reading the figures on your meter.

Note: If you live in an older property you may have a different type of meter fitted.



Cost: none

£ Savings: med

Effort: low

CO2 saved: low

## Challenge

About a quarter of all the clean, drinkable (expensive!) water we use in our homes is flushed down a toilet. <sup>(7)</sup>

An old style single flush toilet can use up to 14 litres of water in one flush. New, more water-efficient dual-flush toilets use only 6 litres for a full flush, and four litres with a reduced flush. <sup>(8)</sup>



## Solution

If your toilet is pre 2001 (see guide over page), consider installing a cistern displacement device (CDD) such as a 'Save a flush' bag or a Hippo/Hog. These are available for free from most water companies. They are simply put in the toilet cistern where they displace about 1 litre of water every time you flush.

Note that Hippos are only suitable for 9 litre toilets and above. Performance can vary between toilet types. If it does not work or you want more advice, give Waterwise a call on 0207 344 1882 or contact SWW and they will be happy to help.

**Yes but... our loo doesn't flush well anyway, won't this make it even worse?** Don't use a CDD on cisterns of 6 litres or less. Try a smaller device if you need to flush twice. Remove it altogether if even the smallest one causes a problem – the idea is to reduce flushing, not increase it!

# Transition Streets

## 3.9 FEELING FLUSHED

### Your savings

Considering the average household flushes 5,000 times per year, savings of up to 5,000 litres per year could be achieved just by simply installing a cistern displacement device. <sup>(9)</sup> With SWW this saves you about £22 per toilet.

If everyone in the UK who currently uses their toilet as a dustbin stopped doing this, we would save 27 million litres of water a week – that's enough to supply the population of York or Portsmouth for one day. <sup>(10)</sup>



**Saves £20 per year per toilet on your water bill. Costs are nothing or a few pounds.**

### Next steps, hints & tips

- Use the table on the next 2 pages to identify what type of toilet you have, and what type of cistern displacement device or CDD (if any) you should probably be using.
- Else asses the capacity of your cistern by counting how long it takes to flush: 9 seconds or more - fit a hippo, 7-8 seconds - fit a Save-a-flush, less than 7 seconds - leave as is.
- Get your free CDD from SWW. Call 0800 169 1144 or order one online at [www.southwestwater.co.uk](http://www.southwestwater.co.uk) .
- Make your own from a large plastic bottle filled with water, or filled with sand and seal it well.
- Flush less often - if it's yellow let it mellow, if it's brown, flush it down! This can drastically reduce usage.
- Check the water level in your cistern is set correctly to the mark which will be about 25mm below the overflow. If it is just below the overflow it will be flushing about one litre more than the designed amount.

More info: see [www.waterwise.org.uk](http://www.waterwise.org.uk) or give Waterwise a call on 0207 344 1882 and they will be happy to help with any questions.

# Transition Streets

## 3.10 FEELING FLUSHED

**The Practical  
Action Plan**

Photo	Year	Type	Flush	Water consumption	CDD
	Post 1 Jan 2001	Modern continental style push button cistern	Dual	Full - 6 litres	Not required
				Half - 4 litres	
	Pre 1 Jan 2001	Close coupled WC	Single	7.5 litres	Save-A-Flush bag
	1980-1970	Close coupled double trap syphonic pan	Single	9 litres	CDD not recommended
	1970 - 1950	Close coupled	Single	9 litres	Hippo or Save-A-Flush bag or Freddie Frog

# Transition Streets

## 3.11 FEELING FLUSHED

Photo	Year	Type	Flush	Water consumption	CDD
	1950 - 1940		Single	10 litres	Hippo or Save-A-Flush bag or Freddie Frog
	Pre 1940		Single	12 litres	Hippo or Save-A-Flush bag or Freddie Frog
	Pre 1940		Single	12 litres	Hippo or Save-A-Flush bag or Freddie Frog

\* source: Waterwise, pictures courtesy of [www.twyfordsbathrooms.com](http://www.twyfordsbathrooms.com)

Cost: none-low

£ Savings: med

Effort: low

CO2 saved: low

## Challenge

Often our water bill is higher than it needs to be, and we're not even using the water we're paying for! For example, a running tap wastes over 6 litres per minute.

Dripping taps are not just annoying, they add up to staggering water losses as you can see in the table below [based on approx. SWW costs]. Dripping taps often just need a new washer, which cost only pence. Leaky pipes are also just dripping away your money, inside or out.

Rate	Litres lost / year	£ lost / year
1 drop per second	5,000	£22
Drops breaking to a stream	31,000	£135
2mm stream	146,000	£632
5mm stream	526,000	£2,299

## Solution

Check regularly for drips and leaks. To fix a dripping tap, first of all, try changing the washer. Also make sure your water pipes and external taps are lagged in time for the cold winter months. Burst water pipes can cause serious damage as well as waste a lot of water.

**Yes but... I changed the washer and it's still dripping.** A dripping tap usually means that the tap washer needs renewing, but it can also be caused by a damaged valve seating. If the drip is from a mixer nozzle, then change both tap washers.

#### Your savings

You can save about £40 if you stop leaving the tap running while you brush your teeth (assuming you do this for 2 minutes twice a day) or wash the veg, or rinse the dishes...

(11), (12)



**Fix a dripping tap and save £22 per year.**

**Turn tap off when brushing, save £40 per year.**

#### Notes

#### Next steps, hints & tips

- See [www.diydoctor.org.uk](http://www.diydoctor.org.uk) for an online 'how-to' guide for fixing drips.
- Search for a [www.youtube.com](http://www.youtube.com) video called "Collins DIY Survival Demos - How to Fix a Dripping Tap".
- See your local hardware store. They often offer written guides or will give you specific advice.
- If you're not into DIY, contact a local plumber or handyman to do it for you.
- Check your pipes regularly for visible leaks (also see section 3.5).
- Use the left over water from your night time drinks to water houseplants – this saves new water being poured into the plants and your drink being poured down the plughole.

More info: see [www.waterwise.org.uk](http://www.waterwise.org.uk) or give Waterwise a call on 0207 344 1882 and they will be happy to help with any questions.

Cost: none-med

£ Savings: med

Effort: low

CO2 saved: low

## Challenge

Baths typically use 80-100 litres of water, whereas an ordinary shower uses about a third of that amount. Over a year, if you have 4 baths a week, this equates to an extra £60 worth of water (plus all the costs of heating the water).<sup>(13)</sup> Using showers most of the time, with the occasional bath, will give significant savings.

The average Brit spends 7.2 minutes in the shower and this average is increasing. Power showers are very popular and can easily use more water than a bath (watch your electricity meter reading shoot up while this is on, it is almost equivalent to boiling a kettle). While invigorating, they pump as much as 20 litres of water a minute, more than the average person living in the developing world gets through in a day. In fact, even a five-minute power shower can use more water than a bath. <sup>(14)</sup>



## Solution

Different showerheads are available which reduce the flow, but keep a good pressure. By replacing your showerhead with a more water efficient model it is possible to reduce your water consumption by more than half, whilst still enjoying a great shower. A shower timer shows how much time you have spent in the shower, and can help you save water. <sup>(15)</sup>

**Yes but... I really do need to shower every day.** Don't take fewer showers – reduce the volume of water used and the time you spend in the shower. You can still have a great shower experience, save money on water and energy, preserve a valuable resource and reduce your CO emissions.

Replacing a power shower with a low-flow shower head could save around 35 litres of water every day – or £53 per year off your water bill and £20 off your energy bill. If you have a power shower, every minute you cut off your showering time can save as much as 16 litres of water (another £24 per year). <sup>(16)</sup>

### Next steps, hints & tips

- Buy a low-flow shower head, which can limit the water flow to as little as 7 litres a minute (cost from £15). Not suitable for electric showers or low-pressure gravity shower systems.
- Buy an aerated shower head (from £25), which adds air pressure to the flow. Not suitable for some electric or low-pressure gravity systems.
- You can buy tap aerators for regular taps too for about £5 (reduces the flow not the performance).
- Get a shower timer to help limit your (and your teenager's ?!) time. Some can tell you how much water you are using, and alerts you when you've had the max recommended amount (35 litres).
- These products are generally available online through sites such as [www.biggreensmile.com](http://www.biggreensmile.com) and [www.savewatersavemoney.co.uk](http://www.savewatersavemoney.co.uk).
- Have a cooler shower, which also helps you to avoid temporary varicose veins. You'll tend to get out of there quicker too.
- Save the cold water that runs while waiting for the hot – keep a bucket or watering can handy then water the plants once you're finished.
- If you do have a bath, you can siphon out your bath water and use it to water your garden. WaterGreen is one such siphon pump, costs about £20.

More info: see [www.waterwise.org.uk](http://www.waterwise.org.uk) or give Waterwise a call on 0207 344 1882 and they will be happy to help with any questions.

# Transition Streets

## 3.16 WASHING CLOTHES

The Practical  
Action Plan

Cost: none

£ Savings: low-  
med

Effort: low

CO2 saved: low

### Challenge

The average water consumption of washing machines is about 50 litres per wash - although now less than it used to be, it's still quite a bit of water. Clothes washing accounts for about 13% of the water that we use in our homes, so by reducing wastage in this area we can make significant water savings – the average family does 274 loads a year. <sup>(17)</sup>



### Solution

Washing machines vary tremendously in how much water they use per wash: when adjusted for capacity, some use as much as 20 litres per kilogram while others as little as 6 litres. <sup>(18)</sup>

When using your washing machine make sure you know about the different cycles – many have a half load or eco load option. Take a look at the manual which should tell you how much water (and energy) the different options use. If you plan to buy a new one, make sure that it's water efficient.

Washing at a lower temperature doesn't save water, but it will save on your water heating costs. Many powders and liquids are designed to work at lower temperatures of 30-40 degrees, and they work well.

**Yes but... I have to keep up with the washing, else it becomes a mountain in this house!** Consider how often you really need to wash your clothes. After every wear? We often wash things that don't need it out of habit – if it doesn't look dirty or smell too bad, it may last another day.

#### Next steps, hints & tips

- When replacing your old washing machine, make sure to buy a water efficient model. See rankings at [www.waterwise.org.uk](http://www.waterwise.org.uk) for guidance, and ask your local retailer for more info.
- More expensive models that use less water will generally still save you money in the long run.
- When using your washing machine, make sure to use a full load every time. Surveys have shown that a typical load of laundry is usually much less than the maximum capacity of the model.
- If you really need to do a wash but don't have a full load, use the half load feature. However some half loads will use almost as much water as a full load – so two half loads will use more water and energy than one full load.
- If you're purchasing a new machine, choose a model with a capacity that is appropriate for your situation. If you live alone, you're unlikely to need a model that can wash 10kgs of clothing.
- Familiarise yourself with your washing machine's cycle options. Some settings provide the same cleaning power but with less water and energy. Check your user manual or contact the manufacturer.
- Avoid pre-washing. Most modern washing machines and washing powders are so effective that you don't have to pre-rinse.
- Try using eco-balls rather than liquid or solid detergents – this works out at ~3p per wash and they really do clean (some whites may need extra help).

#### Notes

More info: see [www.waterwise.org.uk](http://www.waterwise.org.uk) or give Waterwise a call on 0207 344 1882 and they will be happy to help with any questions.

# Transition Streets

## 3.18 THE KITCHEN SINK

The Practical Action Plan

Cost: none-low

£ Savings: low-med

Effort: low

CO2 saved: low

### Challenge

The kitchen tap and dishwasher account for about 8-14% of water used in the home, so there's a huge opportunity here to reduce water wastage. Kitchen taps vary tremendously in flow volume, from 2-25 litres per minute, and behaviours such as how much you twist the tap, and for how long you leave it on, influence how much water is used when you wash up. <sup>(19)</sup>



### Solution

For example, washing up or rinsing dishes under a running tap can use dozens of litres of water, but if you use a washing up bowl or plug your sink, you can reduce water wastage by 50% or more. <sup>(20)</sup>

A common misconception is that dishwashers use more water. In fact, these machines can be water savers – if used wisely. In the 1970s, dishwashers used as much as 50 litres per cycle, but modern models can use as little as 10 litres – sometimes even less than washing up by hand. <sup>(21)</sup>

If you are thinking about buying a new dishwasher, you can refer to the rankings on [www.waterwise.org.uk](http://www.waterwise.org.uk) for guidance on which models are the most water efficient.

**Yes but... sometimes I have to wait for ages for hot water to arrive at the tap, which wastes lots of cold water down the sink.** Collect all the waste cold water in a watering can that you leave by the sink, then use it on the garden or your houseplants.



#### Next steps, hints & tips

- Consider installing a more water efficient tap, or a tap aerator – aerators in particular are cheap and simple quick fixes that you can do yourself.
- When washing up by hand, either use a washing up bowl or plug your sink. Then you can use what's left over to water your houseplants.
- Try to avoid having to thaw frozen foods under running water.
- Keep a jug of water in the fridge so that you don't have to run the tap for ages while waiting for cold water to flow.
- Avoid installing a waste disposal unit in your sink - they require lots of water to operate properly. Compost your food waste or recycle it via SHDC.
- When using your dishwasher, make sure to use a full load every time. Two half loads still use more water and energy than one full load.
- Become familiar with your dishwasher's cycle options for lower temperature/duration cycles. Check your user manual or contact the manufacturer.
- Most modern dishwashers are so effective that you don't ever have to pre-rinse.
- Use the minimum amount of water required when you boil water in saucepans and kettles - you'll save energy as well as water.

More info: see [www.waterwise.org.uk](http://www.waterwise.org.uk) or give Waterwise a call on 0207 344 1882 and they will be happy to help with any questions.

# Transition Streets

## 3.20 OUTDOORS

The Practical  
Action Plan

Cost: low-med

£ Savings: med-  
high

Effort: low

CO2 saved: low-  
med

### Challenge

Outdoor water use accounts for around 7% of the total water use, but in the summer this can rise to over 50% of demand. <sup>(22)</sup> Many of us still use drinking quality, very expensive, cleaned and treated tap water on our lawns and gardens. However this option can be removed from us by law during times of draught.



### Solution

Consider what you plant and look for more drought tolerant varieties. By practicing water efficient gardening practices, you can still have a beautiful, living garden even in times of extreme drought.

Try to avoid having to use tap water to water the garden - instead collect rainwater in a water butt (rain water is also better for your plants) and/or consider re-using dirty water, or grey water (from anywhere but the toilets) on the garden. See reference section at end for more info on greywater and on rainwater harvesting systems.

SWW provide a free 'Top Tips' booklet which includes a useful section on designing low-water gardens. Call 0800 378937 or see [www.southwestwater.com/savingwater](http://www.southwestwater.com/savingwater) to order your copy.

**Yes but... I can't use my old bath water for the garden due to all the bubble bath.** Soil and potting composts are generally ok at filtering out soap and detergents – sometimes the residue even acts as a mild fertiliser. The eco varieties are generally better than regular. The Royal Horticultural Society does not recommend using grey water on edible crops.

### Your savings

Your hosepipe uses as much as 18 litres of water per minute. A watering can, if filled from your water butt, saves £135 per year (if you typically use the hose for 15 mins/day for, say, 4 months of the year). <sup>(22)</sup>



### Next steps, hints & tips

- If you must use a hose, consider fitting it with a trigger gun to control the flow (although during a hosepipe ban you will need to use a watering can).
- Invest in a butt. Your roof collects about 85,000 litres of rain per year. This could fill 450 water butts with free water for your garden or car-washing. <sup>(24)</sup>
- Sprinklers can use as much as 1,000 litres of water per hour! If you really must, use it early in the morning or late in the evening. <sup>(25)</sup>
- Rather than washing your car with a running hosepipe, try using a bucket and sponge instead (ideally fill the bucket from the butt).
- Mulching will not only keep away water-loving weeds, but will also keep the soil cool and decrease evaporation by up to 75%. <sup>(26)</sup>
- Giving your plants' roots a good soaking once or twice a week in dry weather is much better than lightly watering them every day.
- Think about mixing some drought resistant bedding and perennial plants to your garden to add diversity and increase resilience.
- Don't overwater – there is no need for hanging baskets and containers to drip after watering. In RHS tests, bedding plants still performed well when watered little, but daily. Overwatering also weakens plants.
- Water should be directed underneath the foliage. There should be enough to wet the top 30cm (12in) of soil, where most plants' roots are.
- It's ok to let your lawn go brown - they will recover immediately after rainfall. Even the Queen had a brown lawn during the recent hosepipe bans!
- Use pressure washers sparingly - if you must use one to wash your patio furniture or bike, do it on the lawn so the water gets recycled.

Reminder

Possible actions:

- Know how much you are using (3.4)
- Feeling flushed (3.8)
- Taps, drips & leaks (3.12)
- Showers & baths (3.14)
- Washing clothes (3.16)
- The kitchen sink (3.18)
- Outdoors (3.20)

**What other ideas does your team have that aren't covered above?  
Add them below if you think they are relevant for you...**

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your team? List team actions here (with named person & due date)...



Each Briton uses about 150 litres of tap water a day, but if you include the amount of water embedded within products, our water consumption is actually around 3,400 litres every day. About 70% of the embedded water that we consume comes from other nations, as we import goods and services into our country. <sup>(27)</sup>

About 2/3 of the water that we consume is embedded in our food. For example, a tomato has about 13 litres of water embedded in it; an apple about 70 litres; a pint of beer about 170 litres; a glass of milk about 200 litres; and a hamburger about 2,400 litres. <sup>(28)</sup>

If present levels of consumption continue, two-thirds of the global population will live in areas of water stress by 2025. The UK has already witnessed some of its worst droughts ever. <sup>(29)</sup> Though we might envision our nation as lush and rainy, we are not immune from water scarcity problems. We, too, can run out of water.

- Besides water efficiency, what else can we do to reduce our overall water consumption?
- Do you feel you have enough information to make informed choices about the water impacts of what you buy, from t-shirts to hamburgers? (See section 3.28 for more.)
- Should the government insist all households are metered to help ensure we take water efficiency more seriously?

Notes:

# Transition Streets

## 3.24 SWW USAGE CALCULATOR

**The Practical Action Plan**

**Q** **How much water can I expect to use?**  
**A** *continued...*

To get a more accurate picture about your household's likely annual water use, you might like to complete the questionnaire set out below:

Activity	Litres	Frequency	(litres)	Water used
Bath	114 x	<input type="text"/>	(no. per week)	<input type="text"/>
Shower (ordinary)	35 x	<input type="text"/>	(no. per week)	<input type="text"/>
Shower (power)	90 x	<input type="text"/>	(no. per week)	<input type="text"/>
Toilet flushes	9 x	<input type="text"/>	(no. per day) x 7	<input type="text"/>
Automatic washing machine	114 x	<input type="text"/>	(no. of uses per week)	<input type="text"/>
Dishwasher	40 x	<input type="text"/>	(no. of uses per week)	<input type="text"/>
Cooking, drinking, handbasin use, washing dishes and clothes by hand	25 x	<input type="text"/>	(no. of people in house) x 7	<input type="text"/>
<b>Weekly use:</b>				<input type="text"/>
x 52 = <b>Annual use:</b>				<input type="text"/>
<b>Plus</b>				
Hosepipe/sprinkler	23 x	<input type="text"/>	(no. of minutes used a week)	
	x	<input type="text"/>	(number of weeks used) =	<input type="text"/>
<b>Total annual use:</b>				<input type="text"/>

You can also go to the SWW website at [www.southwestwater.co.uk](http://www.southwestwater.co.uk) and use their online calculators.

South West Water currently have a special offer of a free Water Saving Kit (worth over £10.00) available for their domestic customers. Savings can be up to 72 litres per day for a household of two adults plus one child and the kit can include a Top Tips booklet and a Water Calculator to help make even more savings. To order your kit go to [www.southwestwater.co.uk/freekit](http://www.southwestwater.co.uk/freekit).

### References

- 1.-3. [www.waterwise.org.uk](http://www.waterwise.org.uk)
4. -6. [www.southwestwater.co.uk](http://www.southwestwater.co.uk)
- 7.-14. [www.waterwise.org.uk](http://www.waterwise.org.uk)
- 15.-16. BBC Bloom website
- 17.-29. [www.waterwise.org.uk](http://www.waterwise.org.uk)

The following pages are for reference information only, and don't need to be discussed at the water session.

### Overview and where to go for more information

#### **Purchasing a water efficient toilet**

Many toilets today feature a dual flush option to help you save water. These types of toilets have a split flush button giving the user the choice of pressing a small button or a large button, depending on how much water is required to clear the toilet bowl. Look for dual flush toilets if you are considering purchasing a new toilet for your home.

[www.waterwise.org.uk](http://www.waterwise.org.uk) are currently ranking all toilets available on the UK market by water efficiency.



#### **Detecting leaks and repairing your toilet**

An easy way to check if your toilet has a slow leak, is to add a few drops of food colouring to your toilet cistern. Don't flush the toilet for at least one hour. If the food colouring shows up in the toilet bowl after an hour, then you've got a leak.

It is recommended that you get a licensed plumber to fix any leaks. Plumbers know which seals and washers are right for different toilets. However if you are a handy-person, take the parts of the toilet that need replacing to your local hardware store or plumbing retail outlet. The staff there will help you choose the correct replacement parts. Remember to repeat the food colouring test to make sure you have fixed the leak.



### Overview and where to go for more information

#### **Rain water harvesting**

If it is correctly collected and stored, rainwater can be used for toilets, washing machines and watering gardens without further treatment. In practice, most domestic roof areas are too small to satisfy all this potential demand regardless of the size of the storage cistern, so it is important to evaluate the potential savings before investing in an expensive installation.

Solutions range from sophisticated systems with large underground tanks with pumps, storing thousands of litres, to smaller scale DIY systems that simply gravity feed rainwater from large wall mounted butts through the outside wall to a toilet cistern. The garden water butt is the simplest way of collecting rainwater. It does not need any treatment or mains backup, and it does not have to supply water when temperatures are below freezing.

#### **Greywater re-use systems**

Grey water refers to all household wastewater other than wastewater from the toilet (blackwater). Greywater from baths, showers and washbasins is less contaminated than that from the kitchen. Typically, domestic reuse systems collect greywater and store it before reusing it to flush the toilet. More advanced systems treat greywater to a standard that, it is claimed, can be used in washing machines and the garden. The most basic systems simply divert cooled and untreated bath water to irrigate the garden. Systems for flushing the toilet can save around a third of daily household water demand. A trial by the Environment Agency showed a range of water savings from about 5-36%. As newer properties tend to have lower toilet water consumption, the maximum savings in a new build might be closer to 20%.

For more information on both of these options see [www.environment-agency.gov.uk/homeandleisure/drought](http://www.environment-agency.gov.uk/homeandleisure/drought).

WWF and other experts believe that it's essential to break the link between economic growth and higher water usage. They suggest that agricultural practices like rain water harvesting for irrigation are one way. We could also cut consumption patterns that require ever more water, i.e. buy less 'water-heavy' goods, often grown miles away from us in countries that have water shortages, like cotton from Pakistan. See the table below for some hidden water costs.

Product	Virtual water content (litres)
1 glass of beer (250 ml)	75
1 glass of milk (200 ml)	200
1 cup of coffee (125 ml)	140
1 cup of tea (250 ml)	35
1 slice of bread (30 g)	40
1 slice of bread (30 g) with cheese(10 g)	90
1 potato (100 g)	25
1 apple (100 g)	70
1 cotton T-shirt (250 g)	2000
1 sheet of A4-paper (80 g/m <sup>2</sup> )	10
1 glass of wine (125 ml)	120
1 glass of apple juice (200 ml)	190
1 glass of orange juice (200 ml)	170
1 bag of potato crisps (200 g)	185
1 egg (40 g)	135
1 hamburger (150 g)	2400
1 tomato (70 g)	13
1 orange (100 g)	50
1 pair of shoes (bovine leather)	8000
1 microchip (2 g)	32

(Image extracted from Water footprint of nations: Water use by people as a function of their consumption patterns)

*“Controversially, as water becomes scarcer, some countries may have to give up growing certain crops and rearing animals. When the water needed to grow crops has to be pumped hundreds of metres from below, the true cost of food on supermarket shelves becomes clearer.”* wrote journalist John Vidal, The Guardian 29.09.06.

**For more info see:** [www.waterfootprint.org](http://www.waterfootprint.org) or contact the Transition Streets office to borrow a hardcopy of the World Wildlife Fund's report about the global effects of the UK's water footprint (also available from the above website).

# 4. Spend less, eat well



Having a strong, local food system is essential if our community is to be more self-reliant, less oil-dependent, and less exposed to the global price fluctuations that affect how much we pay for our food.

In times of global shortage or local supply disruption (remember the problems caused by the fuel protests a few years ago?), it's important that we can feed ourselves healthy, tasty food, for a reasonable cost.

In the past, Totnes was much more self-reliant in food. Most of our staples such as grains, vegetables, meat and dairy produce were grown and produced only a few miles away.

Nowadays, it is mostly brought to us by lorry, ship and plane from across the world, or at least across the UK.

We are much more vulnerable in terms of 'food security' these days. An example is our dependence upon the national supermarket chains, who have only a 3-5 day supply of food in them at any one time.

Most supermarket food is travelling by road freight, so any disruption of that supply will impact us very quickly. In the UK, the big 4 supermarket chains control 80% of our food market. <sup>(1)</sup>

Local food systems create and protect local jobs and support our local economy. We don't have to ship food hundreds of miles, emitting CO<sub>2</sub>, needing extra roads, contributing to traffic congestion, and burning up oil in the process.

Instead we can eat a great range of fresh, tasty, seasonal food within hours of it being picked, with no processing or excessive packaging required. It is often cheaper than the alternative. This doesn't mean that everything can be produced locally, or even regionally (bananas are unlikely to thrive in Totnes) but it makes sense to grow the stuff that can.

Thinking a little more about the true costs of eating strawberries all year round makes them taste, well, a little less good.

Each of these actions can give you tasty, fresh food for less, cut CO2 emissions and other environmental and social impacts and/or help build a strong local food system. All will cost you little or nothing.

In your group, have a brief chat about each item and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

- **Buy local, seasonal foods (4.4)**
- **Reduce food packaging (4.8)**
- **Minimise food waste (4.10)**
- **Why try organic? (4.12)**
- **Grow your own (4.14)**
- **Caring carnivores (4.16)**

### Food prices

At a time when British farming is in crisis, with competition from international markets, and the stronghold of the supermarkets and international food cartels, we still hear a lot about the rising cost of food for UK households.

Yet in real terms, in the last five decades, spending on food basics has declined sharply.

In 1957 we spent 33% of our household income on food, we now spend 15%. (2)



Cost: none

£ Savings: low-  
med

Effort: low

CO2 saved: low-  
med

## Food challenge

Food is travelling further than ever before. In Britain, the distance food is transported has increased 50% from 1978 to 1999. <sup>(3)</sup> Family farms, local abattoirs, processing plants, local food distribution systems and small shops are all disappearing, unable to compete in today's global market. Over-centralisation of food systems through supermarket chains has meant the loss of local distinctiveness, traditional varieties, and a sense of local food culture. Moreover, money leaks out from local economies as it is siphoned off by distant food businesses, and CO2 emissions rise as our food is shipped further from its source.



## Solution

Local food is not just about 'food miles' it is also about food that is produced and distributed in ways that contribute positively to local communities. Ideally, communities should be easily able to buy as much locally-produced food as possible. Locally organised food systems can help their communities to thrive by:

- Providing jobs and supporting business networks
- Distributing food directly in our area, not sending it to distant supermarket depots before it can head back to us in Devon.
- Creating positive social connections whilst providing healthy, fresh, seasonal food for the community.

**Yes but... some food can't be produced locally.** Trade is vital and very rarely can a local region be completely self-sufficient. Trade, if carried out in a fair way, also has many positive impacts, including education and improved quality of life. It's fine to buy things that can't be produced locally, but we can try to be sure the goods are produced fairly, wherever they come from.

### Your savings & benefits

Eating local food from a nearby farm is more likely to be healthy, fresh and in season – when it tastes best!

It's can be cheaper. For example carrots in a Totnes high street greengrocer were 77p/kg vs. 88p in Morrisons. Sprouts were 10p/kg less in town, and purple sprouting broccoli was £4.39/kg vs. £7.95/kg (and with no plastic packaging or tray attached).

You get the joy of knowing shop keepers. Also, box delivery schemes can save you carrying heavy loads of shopping.

### Notes:

### Next steps, hints & tips

- Begin with just a part of your food shop – try the local butcher, fish monger or cheese shops.
- Use the Local Food Guide – try local wine, cider, beer & soft drinks too.
- Have fresh local food delivered to your door (see next page) or use a wheeled trolley to help ease the shopping load .
- Support local, independent food shops. Ask them to stock local produce.
- Buy your food directly from the farm , farm shop or farmer's market.
- Visit a local organic farm & learn more about food production (e.g. Occombe Farm in Paignton [www.occombe.org.uk](http://www.occombe.org.uk) )
- Check which foods are in season and how to use them at [www.eattheseasons.co.uk](http://www.eattheseasons.co.uk) .
- Ask for more local organic food in your school, hospital, work place - and whenever you eat out.
- Try using the Totnes Pound at various shops in town – it keeps money local and supports independent shops. More T£ info at the end.

## Local food box schemes

There are as many varieties of box schemes as there are wonderful vegetables in them. However, the majority sell only organic produce, which can range from set-content boxes of seasonal vegetables, to combinations of anything from meat to dairy and wines to washing-up liquids.

A few schemes sell only home-grown produce, others source additional stock from other local, organic growers. Some fruits are imported. These are usually shipped in rather than air-freighted. And most good schemes ask for a list of up to three vegetables you don't like which they swap for something else.

Box schemes are very competitively priced, coming in cheaper than organic supermarket produce, and often conventional supermarket produce too. Most basic boxes of six or so types of fruit or vegetables start from about £8. Some schemes ask for a minimum order and/or charge a delivery fee.

We have one of the largest box schemes right on our doorstep with Riverford, but there are other local suppliers too, some of which are listed below. Go to [www.vegboxschemes.co.uk](http://www.vegboxschemes.co.uk) to search by your postcode for other listings, or to [www.soilassociation.org/directory](http://www.soilassociation.org/directory) for organic only listings:

- Riverford , [www.riverford.co.uk](http://www.riverford.co.uk), 0845 6002311 (Totnes)
- Dartmoor Direct Co-operative Ltd, 01364 631528 (Newton Abbot)
- Nature's Round, 07810 127367 (Buckfastleigh)
- Well Hung Meat Company, [www.wellhungmeat.com](http://www.wellhungmeat.com), 0845 2303131 (Buckfastleigh)
- The Local Food Company, [www.thelocalfoodcompany.co.uk](http://www.thelocalfoodcompany.co.uk), 01392 248485 (Ivybridge)

### Local farmers' markets

There is now a Totnes Good Food Market in the Civic Square once a month – see

[www.totnesgoodfood.co.uk](http://www.totnesgoodfood.co.uk). Also visit Totnes market square on Friday and Saturday which has food stalls with local cheeses, fruit & veg, breads, cakes, fish...

### Local farm shops (some also do farm tours, nature trails etc.)

- Riverford Farm Shop, Staverton, [www.riverfordfarmshop.co.uk](http://www.riverfordfarmshop.co.uk) , 01803 762523.
- Occombe Farm, Paignton, [www.occombe.org.uk](http://www.occombe.org.uk), 01803 520022.
- Churston Farm Shop, Brixham, [www.churstontraditionalfarmshop.org.uk](http://www.churstontraditionalfarmshop.org.uk), 01803 845837.
- Countryman's Choice Farm Shop, Ivybridge, [www.countrymanschoice.co.uk](http://www.countrymanschoice.co.uk), 01752 895533.
- Dean Court Farm Shop & Cafe, Buckfastleigh, 01364 642199.
- Ullacombe Farm Shop, Bovey Tracey, 01364 661341.

### Pick Your Own

- Shute Fruit & Produce, Teignmouth, [www.shutefruit.co.uk](http://www.shutefruit.co.uk), 01626 777570.

This is just a selection for Totnes & District. Find other farm shops, markets and box schemes using the online directory at [www.freerangereview.com](http://www.freerangereview.com).

For more info on local food see [www.makinglocalfoodwork.org](http://www.makinglocalfoodwork.org)



Cost: none

£ Savings:  
none-low

Effort: low

CO2 saved: low-  
med

## Food challenge

Our shopping bags are bulging, bins are overflowing, and we're running out of landfill sites to dispose of it all. We're being swamped by packaging - and food packaging is a major culprit.

In fact, one-sixth of the average household food budget goes on packaging and it makes up a third of our household waste. <sup>(5)</sup>

**Yes but... what about the supermarkets and suppliers – what are they doing?** Agreed, the amount of pointless packaging has to be reduced. Shrink-wrapped swedes and cucumbers, apples in polystyrene trays and tubes of tomato purée in cardboard cartons are examples of unnecessary packaging.

Businesses are under Government orders to recycle their packaging waste, and now many food producers have signed up to a voluntary agreement to reduce the amount of packaging used, called the Courtauld Commitment. If progress is not fast enough, the government promises to intervene.

## Solution

Otherwise, until such a time as they all act, we can take responsibility for reducing the amount of packaging waste that we bring into our homes.

That which we cannot avoid, we can choose to dispose of through re-use or recycling rather than landfill.



### Your savings

Bagged produce tends to cost more than loose. For example, bagged onions cost 10p more per kg than loose ones when we last checked. Why pay for packaging you just throw away?

Local greengrocers shops in Totnes provide brown paper bags, rather than plastic. Ready-chopped food stuffs last less time and cost more (muddy carrots last the longest!). Buying lettuces intact and washing and cutting them yourself can save £'s.

Notes:

### Next steps, hints & tips

- Buy fruit and vegetables loose or in paper bags from local shops.
- Take bags with you to the shops.
- Always carry a spare bag for spontaneous shopping!
- Choose larger sizes rather than individually packaged portions.
- Buy a single larger size container (e.g. yoghurt) and decant it.
- Buy re-fills e.g. for washing powder and other detergents.
- Look for biodegradable packaging, e.g. cardboard or cornstarch based.
- Find out if there's a local milkman who will deliver in glass bottles.
- Look for products that come in recycled or lighter materials.
- Ask shop managers what they're doing to reduce packaging and insist they step up their efforts.
- Re-use or recycle all the waste packaging that you can – many containers make great seedling trays & plant pots!

More info: see [www.recyclenow.com](http://www.recyclenow.com) for more info on the Courtauld agreement and what manufacturers are doing. See the waste section to follow. Contact TTT about their new recycling group – call 01803 867358.

Cost: none

£ Savings: low-  
med

Effort: low

CO2 saved: low-  
med

## Food challenge

Around a third of all the food we buy ends up being thrown in the bin and most of this could have been eaten. Reducing food waste is a major issue, and not just about good food going to waste. Wasting food costs the average family hundreds of pounds a year and has serious environmental implications too. If we all stop wasting food that could have been eaten, the CO2 impact would be the equivalent of taking 1 in 5 cars off the road.



## Solution

A number of issues lie at the heart of this problem:

- A lack of planning when food shopping – we buy more than we need, and then it goes off (often seduced by Buy One, Get One Free type offers).
- Poor food storage knowledge – things go off sooner than they would if we knew how to keep them fresh.
- A lack of confidence around cooking e.g. how to make tasty food from leftovers, portion control.
- Confusion over food date labels e.g. best before versus use by.

Of course some food waste is unavoidable. Home composting or using South Hams District Council food waste recycling scheme ensures the impacts are minimised.

**Yes but... I love my food and don't want to do without!** Reducing food waste and saving money does not mean cutting down on the pleasure of eating. If anything, planning well, eating well, saving money and reducing CO2 will leave us with a small glow of self-congratulation.

### Your savings

The average family can save £420 per year on their food bill by following these simple steps >>>

### Notes:

### Next steps, hints & tips

- Measure portions more accurately e.g. portion of rice =  $\frac{1}{4}$  of a mug.
- We often waste carbs – rice, pasta, potatoes & bread. Keep bread in the freezer & take out half a loaf at a time. Too much soup, or risotto? Freeze it for a lazy day...
- Use the online portion calculator at [www.lovefoodhatewaste.com](http://www.lovefoodhatewaste.com)
- Plan all meals for 2 weeks, and write your shopping list accordingly. You will save time and spend less.
- Keep essentials in the cupboard, fridge and freezer and you will always be able to make a meal.
- Know about dates - Use-by : never eat products after this date. Best-before: you can still eat them but they might not taste as good.
- Keep an eye on dated produce & eat it in time, or else freeze it.
- Always follow manufacturer's storage instructions.
- Ensure your fridge is cold enough (1-5 degrees).
- Learn how to use leftovers – find recipes for free on the internet.

More info: [www.lovefoodhatewaste.com](http://www.lovefoodhatewaste.com) – government funded website dedicated to reducing our food waste – lots of great tips and recipes.

Cost: none-med

£ Savings:  
none-low

Effort: low

CO2 saved: low-  
med

Four good reasons to eat organic food:

- Over 20% of the UK's greenhouse gas emissions come from food and farming today. Chemical nitrogen fertiliser manufacturing is the worst offender. To produce just 1 tonne of this takes 1 tonne of oil, produces 7 tonnes of greenhouse gasses & takes 100 tonnes of water. Organic farmers work without harmful chemicals and artificial fertilisers and do not allow the use of genetic engineering (GMOs). <sup>(6)</sup>
- Organic food has higher amounts of minerals and vitamins. It avoids pesticides and controversial additives including aspartame, MSG & hydrogenated fats. Organic milk for example, is on average 68% higher in Omega 3 essential fatty acids. <sup>(7)</sup> Non-organic leafy greens, potatoes and strawberries are particularly heavily-sprayed with chemicals, and washing cannot remove all the residues.
- Organic animals are not subjected to routine use of antibiotics.
- Switching to organic farming is much better for the environment. For example, if 10,000 small to medium sized farms converted to organic production, the soil would be able to store enough carbon to offset 1,174,400 cars. <sup>(8)</sup>



**Yes but... it's much more expensive.** Organic food does often cost more, depending on what you are buying and when, but it depends largely on the seller. The reasons for this price difference are mainly to do with production costs, but also because many food suppliers, namely supermarkets, actually hide the real cost of food by importing cheaper food from overseas. The real cost of our food is disguised, it's not as cheap as we think it is. So who is paying the real price?

### Your savings

It can be much cheaper to buy organic produce using a local box delivery scheme rather than supermarkets (saves lugging it all home too!).

In August 2008 it was found that for the same box items, you could save over half again versus the supermarkets:

- Waitrose £28.13
- Sainsbury's £27.48
- Tesco £26.00
- Riverford (Riverswale) £12.96

Plant, insect and bird life is up to 50% greater on organic farms. Organic farming relies on wildlife to help control natural pests, so bugs, birds and bees flourish.

They are also not sprayed away by the fertilisers, chemicals and pesticides routinely used on non-organic farms, which can also be harmful to humans, causing infertility and cancers amongst other diseases. <sup>(10)</sup>

Notes:

### Hints & tips for paying less for your organic food

- Bulk buy with friends or neighbours (or your Transition Streets group).
- Buy a weekly vegetable/meat box from a local organic farmer (see above)
- Grow some of your own organic food (see later page for ideas).
- Offer some hours free labour to a local organic farmer in exchange for organic vegetables. At time of writing, School Farm, Dartington, and Riverford Farm are looking for help harvesting in exchange fresh veggies.

More info: [www.soilassociation.org](http://www.soilassociation.org) , [www.riverford.co.uk](http://www.riverford.co.uk)

Cost: low

£ Savings: med

Effort: low-med

CO2 saved: low-med

## Food challenge

By growing your own food you are starting to become less reliant on the big shopping conglomerates. Rising food costs, supply disruption and concerns over food quality all raise questions about the source of the food we eat. For example, if we have another fuel protest and supermarket shelves quickly empty, do you have any means to supplement what's in your freezer and cupboards with fresh, healthy produce? As food prices continue to rise, can you help protect your weekly food budget?



## Solution

Anyone can grow their own fruit and vegetables, even when space is limited. Pots, window boxes and hanging baskets can all be turned into mini-food gardens, and give you months of delicious produce. Plus it's a wonderful, empowering feeling to eat what you have grown. It's not difficult to do and it can save you lots of money. Here are 5 easy to grow food items:

- Potatoes - can be in tubs or old sacks, top them up as leaves grow
- Garlic – store what you don't eat for a year round supply
- Mixed salad leaves – cut and come again varieties are great – save £s!
- Strawberries – stick a few plants in a hanging basket
- Runner beans – they look lovely climbing up canes or sticks

**Yes but.... I do want to grow things but have no outside space at all.** Consider joining the local Garden Share scheme. Those with un-used garden space offer it to keen gardeners in exchange for a small amount of the produce - call Lou on 01803 867358. You can also register for your own allotment with the Totnes Allotments Association on 01803 865091.

### Your savings

Depends what you grow – but for example, a lettuce can cost over £1 in the shops and a packet of seeds gives you about 250 lettuces for a similar price.

According to one study if you grow 5kg of tomatoes instead of buying them in a shop (grown in season in the UK), you could save around £20.

**Yes but... It's a lot of work!** Yes, it takes some effort to set up your kitchen garden (which can help you keep fit) but when designed well, it can also be very low maintenance. Research 'permaculture' principles for inspiration.

Notes:

### Next steps, hints & tips

- Consider growing everything organically (avoid slug pellets etc.) .
- Find out more about basic skills online at sites such as the RHS grow your own section at [www.rhs.org.uk](http://www.rhs.org.uk) or [www.bbc.co.uk/gardening](http://www.bbc.co.uk/gardening).
- Join a local organic gardening course.
- Get some seeds, plant them, water them, wait a while, then eat!
- Totnes Recycling Centre often has 2<sup>nd</sup> hand pots available.
- Visit local food gardens and be inspired, e.g. RHS Rosemoor in N.Devon or the Agroforestry Trust at Dartington.
- Get on the allotments waiting list (they are in short supply in Totnes) [www.totnesallotmentassociation.wordpress.com](http://www.totnesallotmentassociation.wordpress.com) or call 01803 865091.
- Find out about the free Garden Share scheme from TTT.
- Get involved with Community Supported Farming at [www.greenlistings.co.uk/devoncsf](http://www.greenlistings.co.uk/devoncsf).

More info: Growing veg in containers [www.allotment.org.uk/container-growing/growing-vegetables-containers.php](http://www.allotment.org.uk/container-growing/growing-vegetables-containers.php) . Also many good organic gardening books are available for free at Totnes library.

Cost: none

£ Savings: low-  
med

Effort: low

CO2 saved: low-  
med

## Food challenge

Recently, the UN made the headlines by suggesting that we all eat less meat, in order to help tackle climate change. They estimate that meat production accounts for nearly a fifth of global greenhouse gas emissions. Livestock farming can also cause deforestation & loss of biodiversity.

Generally, the higher up on the food chain you go – from plants to animals, say – the bigger the energy trail left behind by their production. It's not only what went into raising the animal you are eating, but also what went into producing its food. Compared to the amount of vegetarian food you can produce on the same piece of land, livestock reared for meat exacts a very heavy toll.

According to the World Health Organisation, Britons eats twice the amount of protein they need. Given we don't need to eat so much meat, replacing some of it with vegetarian options can save money on the weekly shop, and help the environment at the same time.

## Solution

Choose the type of meat more carefully. For example, it takes 4 calories of plant protein to make 1 of chicken protein, while the ratio for pork is 17:1; for lamb, 50:1; and for beef 54:1. Red meat production takes a lot of energy and diverts a lot of grain from other food uses.

Try starting to have 1 meat free day per week, and increase it slowly as you find new, delicious vegetarian alternatives.

**Yes but.... I'm a vegetarian so I'm OK.** Vegetarian diets that include lots of milk, butter and cheese would probably not noticeably reduce emissions because dairy cows are a major source of methane, a potent greenhouse gas released through flatulence.



### Your savings

In addition to money saved on your weekly shop (from buying less meat), you can improve your health. Of course, these savings will depend on what meat you buy and how often. Some people choose to eat less meat, but to buy organic quality when they do purchase it.

A diet with less meat generally boosts the intake of fibre, & fruit & vegetables, & generally lowers the intake of saturated fat. This dietary pattern helps to reduce the risk of chronic diseases such as cardiovascular disease and some cancers.

### Notes:

### Next steps, hints & tips

- You don't have to give it up! Gradually reduce the number of days you eat meat per week.
- Eat more white meat (chicken and pork) rather than red. They have less impact in some ways as they come from animals that don't burp methane!
- Eat local meat, (preferably pasture-fed,) if possible to avoid emissions from long distance transport. See ref. for more info.
- Consider alternatives to dairy – there are lots of options available for cheese, milk, cream, yoghurt etc. – although know that soya may have travelled thousands of miles, from where it is grown in what was the Brazilian rainforest.
- Try new vegetarian, dairy free recipes. Plenty of choice online e.g. [www.vegsoc.org/cordonvert/recipes](http://www.vegsoc.org/cordonvert/recipes) or [www.bbc.co.uk/food/recipes](http://www.bbc.co.uk/food/recipes) or see cook books in Totnes library.
- The next time you decide to go out for dinner, try a vegetarian restaurant or the veggie options – see for yourself how good it can be.

More info: The Vegetarian Society [www.vegsoc.org.uk](http://www.vegsoc.org.uk)  
[www.guardian.co.uk/food/environment](http://www.guardian.co.uk/food/environment) pages for both sides of the debate.

Reminder

Possible actions:

- Buy local, seasonal foods (4.4)
- Reduce food packaging (4.8)
- Minimise food waste (4.10)
- Why try organic (4.12)
- Grow your own (4.14)
- Caring carnivores (4.16)

**What other ideas does your group have that aren't covered above?  
Add them below if you think they are relevant for you...**

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person & due date)...



We saw in the first action that buying local, seasonal, organic food from independent shops has environmental and financial savings, as well as helping our local economy to thrive.

However many of us shop at Morrisons and other major supermarkets. (For more about supermarkets see end of this chapter.)

- What benefits do these large supermarket chains offer us?
- What are the downsides?
- How important is a strong, local food system to our town and our community?
- How might you overcome some of the barriers to supporting local shops and buying organic produce?

Notes:

### **Support the Totnes Pound, support your local businesses**

Using Totnes Pounds is a visible way of showing that you support the local economy and local businesses.

You simply exchange some of your normal money for Totnes Pounds at one of four places around Totnes (Totnes Museum, Dartington Cider Press Centre and the TTT office at 43 Fore Street). The exchange rate is one for one - 1£T for £1.

Your Totnes Pounds can then be spent at participating businesses in the town. To see the full list see the TTT website and click on the Totnes Pound link. Some shops are now offering discounts for certain purchases that are made with Totnes Pounds. Every Totnes Pound in circulation is 'backed' by one pound of Sterling and this money is held in a bank account.

Ideally you also ask for Totnes Pounds in your change from participating shops. This does not create new pounds, but does help them to circulate and enables shoppers to show their loyalty to the local economy.

So Totnes Pounds then circulate between local consumers and businesses. Some businesses spend the Totnes Pounds that they receive with other local businesses. This strengthens the local economic multiplier, which means basically that money stays within the community, rather than leaking out (where does money you spend at Morrisons end up?).

You can change T£ back to sterling at the TTT offices if you so choose. So there's no risk and it's an exciting innovative experiment that is being watched worldwide... even Westlife have discussed it on the BBC1 One Show!

# Transition Streets

## 4.21 REFERENCES

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The following pages are for reference information only, and don't need to be discussed at the food session.

*"There are nearly 7 billion of us living on the earth, and the human population is increasing by nearly 80 million people a year. Today the biggest threat to human wellbeing – our food, water, energy, as well as to other species, and to the earth as we know it, might well be ourselves. The issue of population size is controversial, because it touches on the most personal decisions we make. But we ignore it at our peril."* David Attenborough 'BBC Horizon Documentary: How Many People Can Live on Planet Earth? (borrow this DVD from the TTT office).

One in six people across the world routinely goes hungry. In the 1920s there were 2 billion people on the earth, now there are nearly 7 billion.

Global food prices in the last few years have risen sharply causing serious malnutrition to spread (19). From the 1950s the Green Revolution led to huge increases in crop yields, with grain production increasing by over 250% (20). But since then world population has grown by about 4 billion, and now the oil and natural gas supplies on which this agricultural system depends (21) are set to decline dramatically over the next few decades.

Growing populations, falling energy sources and food shortages will create the "perfect storm" by 2030, a UK government chief scientist has warned. He has said that food reserves are at a 50-year low but the world will require 50% more energy, food and water by 2030. (22, 23)

The peaking of world oil production will seriously test our current food systems (25, 26). The price of grain is generally rising due to rising world oil prices, increased demand due to population (27), climate change impacts(28), loss of agricultural land to residential and industrial development (29, 30) and growing consumer demand (31, 32). Food riots have recently occurred in countries across the world.(33, 34, 35).

The need to spend billions of dollars on wars, border security, and peacekeeping arguably is linked to a disregard for the world's pressing social and environmental problems (36). "The silent hunger crisis — affecting one sixth of all of humanity — poses a serious risk for world peace and security." said a UN spokesman.

In 1939, Britain had half a million farms, most less than 100 acres and worked by around 15% of the population. Today we have lost over 1/3 of our farms and the agricultural workforce is in serious decline. Less than 2% of the UK workforce farms [12] and the government predicted that by 2006, 25% of the remaining farms in the UK will have gone out of business or merged, with a further 50,000 people forced to leave farming. [13] The average farm income in 2002/2003 was £12,500 although incomes for some, predominantly small farmers, remain below the minimum wage. [14] So what is happening?

Fifty years ago, farmers in Europe received between 45-60% per cent of the money that consumers spent on food. Today, that proportion is just 7% in the UK [15], and supermarkets have a part to play in this... the 'cheap food' that the supermarkets promote comes at a very high price to small manufacturers, small farmers and the environment. We deserve affordable food, but also healthy food, healthy communities, healthy small businesses and a healthy countryside.

Supermarkets research precisely what the average cost of production is for a particular crop worldwide, then often conduct blind online auctions, buying when the price reaches its lowest level. Farmers do not know what price has been tendered by other producers and so have to offer a low price to ensure a sale. Only multinational food corporations and companies with successful brands have any leverage with the big suppliers.

To make a living, farmers have adopted more intensive methods to produce more to sell. This may make sense on an individual level, but ultimately works against their interests, creating over-production and a further decrease in prices. As a result they are often paid less than the cost of production. The UK dairy industry, for example, has been heavily hit by supermarkets, using the oversupply of milk to their own advantage. It costs a small dairy farmer anything from 18p - 22p to produce a litre of milk. Until the Milk Marketing Board was abolished in 1994, they were being paid 24p per litre. At time of writing farmers were paid 19p per litre, for what sells in the supermarket for 72.2p. [16a]

In some sectors (arable, sheep and beef), the difference is made up by the taxpayer through subsidies. While farmers are often blamed for being 'subsidy junkies' the truth is that in some cases the farm-gate price is so low, that even with the subsidy, farmers cannot cover their costs.

Supermarkets then blame the free market for the fact that they can import milk more cheaply from Eastern Europe or New Zealand [16], or say that the WTO will clamp down on them for price-fixing (i.e. paying a fair price) [17]. Or, it's the middlemen creaming off all the profits not us. Or, the quality of UK milk isn't up to it. [18]

Whilst the global economic system may be at fault, it is the supermarkets, through lobbying governments and the WTO, who have made the system to suit them, with little regard for small producers. Farmers are in a weak negotiating position, previously having had some bargaining power on the basis of seasonality. Imports and glasshouses have stopped this advantage. Now farmers are squeezed by the buying power of big suppliers and global oversupply.

*“Liquid milk prices are falling and are now below my production costs. My buyers are being squeezed by the supermarkets which sell liquid milk at below acceptable levels to attract customers. I am being asked to run a business at a loss. I have done all I can to become efficient and meet high welfare and farming standards. But unless I get a fair deal from the supermarkets I will not be able to continue. The issue of fair-trading must be urgently addressed.”*

Gareth Watkins, Dairy farmer [11]

Supermarkets and big processors increase their share of the profit margin by squeezing the whole supply chain, often refusing to enter into binding contractual agreements with suppliers. All of the supermarkets admitted to the Competition Commission that they requested suppliers 'to make a payment for better positioning of products in the stores', and demanding 'non-cost related payments' i.e. payments to ensure the continuation of business

Farmers are forced to invest a huge amount into meeting supermarket needs and standardised goods, and then can be dropped at a whim, wiping out their business and the businesses and rural communities that rely on them, and are too afraid to raise their voices in case of being blacklisted by supermarket buyers. Knowing that in the UK, the big 4 supermarket chains control 80% of our food market could lead us to question if this is how we want our food supply systems to work, and who is it working for?

With thanks to [www.corporatewatch.org.uk](http://www.corporatewatch.org.uk) for this report.

# 5. Wasting away



Every year the UK produces about 335 million tonnes of rubbish – of which only about 9% is household waste. Individually, each of us produces about half a tonne of waste a year at our homes, of which about 33% is recycled on average (but this figure is 57% in the South Hams – we are 2<sup>nd</sup> best in England!). <sup>(1)</sup>

However, most of the other 91% of the UK's rubbish relates to waste produced by industry and commerce. <sup>(2)</sup> We should remember, however, that we all contribute to this directly by our consumption of their goods and services – i.e. all the stuff we buy. If we continue to send rubbish to landfill at our current rate, in less than 9 years we'll run out of landfill space.

So why else make efforts to reduce the amount of waste we produce?

- **Save resources** – many discarded products contain resources that are running out. Using them longer saves digging up even more.
- **Save energy** – making new goods takes energy – better to keep the old ones in use as long as possible.
- **Reduce climate change** – rotting rubbish produces methane, a greenhouse gas 21 times more potent than CO<sub>2</sub>.



Recycling is important, but it is even more important that we try to use less stuff in the first place. The options for dealing with waste, in order of preference, are:

1. **Avoid** – do you really need it?
2. **Reduce** – do you need as much of it?
3. **Reuse** – can it be fixed, used by others?
4. **Recycle** - can it be broken down and used again?
5. **Landfill and incineration** – the last resort.

So what can you do about it?

Each of these actions will help you reduce the amount of waste that you produce. In your group, have a brief chat about each item and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

- **The Story of Stuff (don't need it? don't buy it)** – learn more about the impacts of our excessive consumption (of course, we all need to buy the essentials) and see if this affects your buying decisions. (5.4)
- **Reduce & reuse** – ideas for making things go further. (5.6)
- **Recycling** – your definitive guide to what we can recycle, when and where in the South Hams. (5.7)
- **Make your own compost** – for anyone who loves to grow things and is ready to take care of their own compostable waste. (5.14)

Notes:



# Transition Streets

## 5.4 THE STORY OF STUFF

The Practical  
Action Plan

Please watch the DVD that has been provided

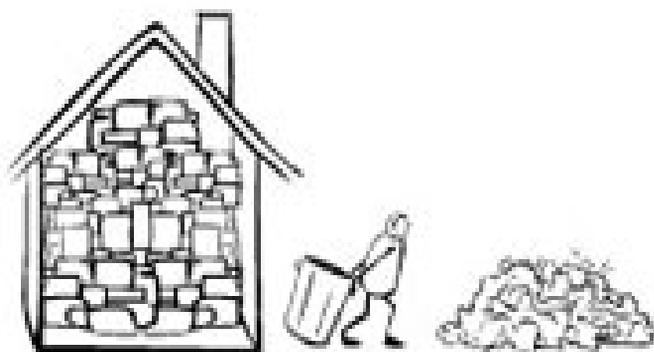
What's this about?

“From its extraction through sale, use and disposal, all the stuff in our lives affects communities at home and abroad, yet most of this is hidden from view.

The Story of Stuff is a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns. The Story of Stuff exposes the connections between a huge number of environmental and social issues, and calls us together to create a more sustainable and just world.

It'll teach you something, it'll make you laugh, and it just may change the way you look at all the stuff in your life forever.” It is American but entirely relevant for the UK too.

THE STORY OF  
STUFF



WWW.STORYOFSTUFF.COM



Having watched the DVD, discuss the following questions in your group (but do keep an eye on the time – spend no more than 15 minutes on your discussion):

1. People in the UK have less leisure time now than we did in feudal times. Why is this the case? What are some ways that we could change our economy to work less and live more? How can we hasten those changes?
2. “The American economy’s ultimate purpose is to create more consumer goods.” Do you think this applies here in the UK? Can we/should we each contribute to turning this around by changing our buying patterns? How can we get our government to focus on things more valuable than consumer goods, be they sustainability, justice, or healthcare?

At just 22 weeks old, an average UK citizen will be responsible for the equivalent emissions of the greenhouse gas carbon dioxide as someone in Tanzania will generate in their whole lifetime. - Andrew Simms (2006) UK Interdependence Report, New Economics Foundation

Notes:

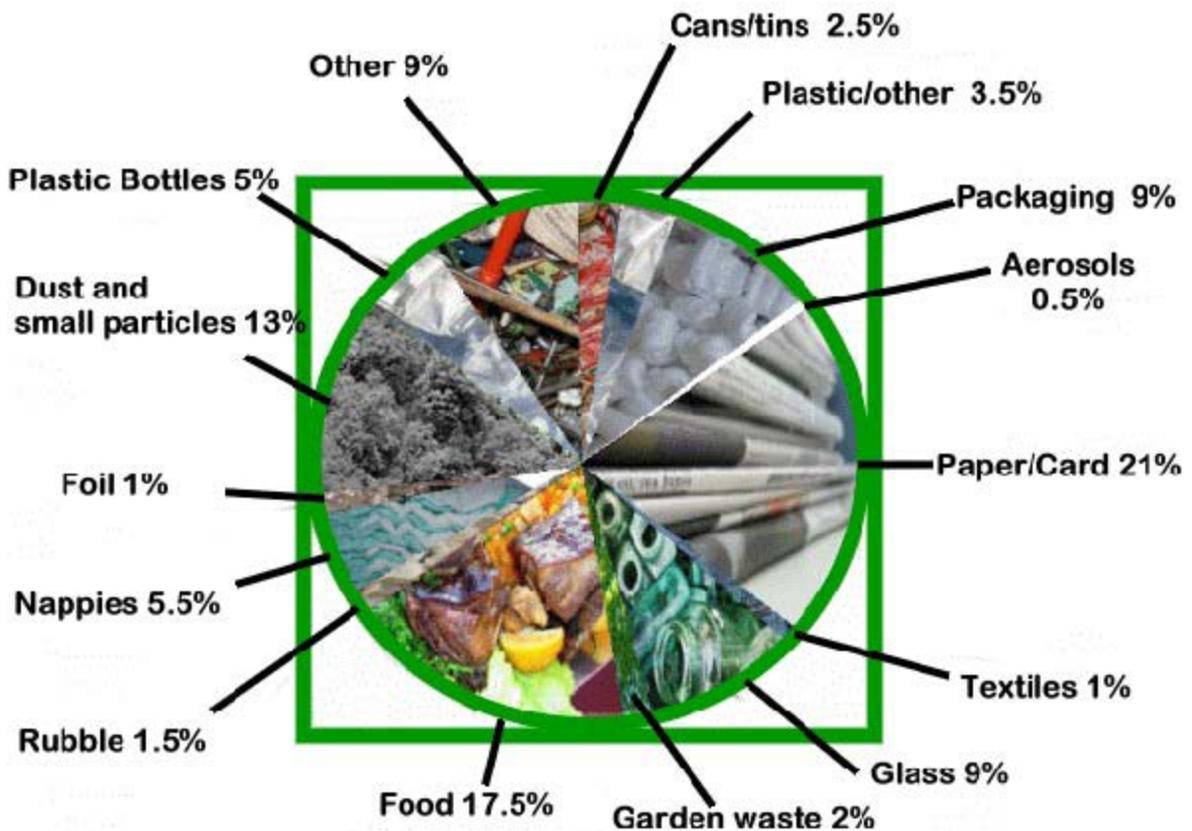


A large percentage of UK households still don't recycle enough, and throw everything that they consider 'rubbish' into their ordinary bin.

Much of this waste can be recycled and should be disposed of separately to general household waste. Look inside this rubbish bin to see how much of the contents should actually have been recycled.

What does your bin look like today?

(3)



Cost: none

£ Savings:  
none-low

Effort: low

CO2 saved: low-  
med

Why recycle?

Now we have thought about not buying as many things in the first place, let's look at how best to dispose of the stuff we do actually need. Recycling helps conserve important raw materials, energy and natural habitats for future use. It also reduces greenhouse gas emissions, which helps to tackle climate change.

The precise benefits of recycling depend on the material you're recycling - for example, recycling aluminium saves 95% of the energy of making it from scratch, while recycling glass saves 25%. That said, glass can be recycled again and again without losing its clarity or purity - unlike other materials. Recycling saves the UK 10 to 15 million tonnes of CO<sub>2</sub> annually, a saving equivalent to taking 3.5 million cars off the road. <sup>(4)</sup>

What to recycle and where you can do it can be confusing, so this section gives you all the information that you need about what and where to recycle in Totnes & District.



**Yes but... doesn't everything we 'recycle' end up in landfill somewhere in the UK anyway?** No - the government's Waste & Resources Action programme (WRAP) states that it is all recycled in the UK, or elsewhere. Even if it's recycled in China there's significant carbon savings to be had.

**I just don't have room to put it all.** Recycling shouldn't increase the amount of room you need – just switch your large kitchen bin for several smaller ones. The space needed will go down as you do the reduce & reuse actions.

### Our local recycling scheme

All homes in the South Hams District Council (SHDC) area have been issued with wheeled bins and recycling sacks to manage their waste. Recycling and composting are collected one week and non-recyclable waste the next.

Recycling can be placed in the blue and clear sacks, while food and garden waste should be placed in the brown wheeled bin. Waste which cannot be recycled or composted should be put in the grey bin, which goes to a landfill site.

For a full list of what can go in each bin or sack, please see the next few pages...

Notes:

### Tips

- Make space next to your bin for recycling containers – then it's as simple to recycle as it is to throw it away. You can use cardboard boxes lined with the appropriate sack, or get stacking plastic containers.
- Make a visit to a recycling bank part of your routine – there are recycling facilities in Heath's Nursery car park in Totnes, as well as in the supermarket car-parks.
- Glass jars - just give them a rinse and recycle them with your other glass. Don't worry about removing labels.
- Shampoo and shower gel bottles are often forgotten - rinse out those empty bottles whilst you're in the shower.

For your collection days call SHDC on 01803 861234 or see [www.southhams.gov.uk](http://www.southhams.gov.uk) :residents :rubbish & recycling section. For more info on recycling in general see: [www.recycledevon.org](http://www.recycledevon.org) or [www.recyclenow.com](http://www.recyclenow.com).

**Containers**   **Blue Sacks**   **Clear Sacks**   **Brown Bin**   **Grey Bin**

Recycling sacks are taken to a materials collections facility, where the materials are separated, bulked and sent on for recycling.



### Blue Sacks



#### Yes please

- Newspapers and magazines
- Junk mail and envelopes
- Printing, writing, shredded paper
- Books, catalogues, telephone directories, yellow pages
- Gift wrapping paper
- Cardboard packaging - i.e. cereal packets, washing powder boxes
- Corrugated card
- Kitchen roll tubes, egg boxes
- Greetings cards

**No wet or dirty paper, drinks cartons**

**Containers**   **Blue Sacks**   **Clear Sacks**   **Brown Bin**   **Grey Bin**

Recycling sacks are taken to a materials collections facility, where the materials are separated, bulked and sent on for recycling.



### Clear Sacks



#### Yes please

- Plastic bottles only - please rinse and squash where possible
- Aluminium and steel food / drink tins and cans
- Empty aerosol cans
- Clean aluminium foil
- Jar lids

**No other plastics**

# Transition Streets

## 5.11 RECYCLING

The Practical  
Action Plan

Containers

Blue Sacks

Clear Sacks

Brown Bin

Grey Bin

The compostable waste from the brown bin is taken for 'in-vessel composting' locally. Here it is turned into a high quality soil conditioner used on local agricultural land and landscaping projects.



food waste



fish



garden waste



corrugated cardboard

### Brown Bin

#### Yes please

- ✓ Any cooked or uncooked food waste, including meat, fish and vegetable peelings
- ✓ Garden waste - grass, hedge and plant cuttings, weeds, flowers and leaves (branches up to 10cm diameter)
- ✓ Large brown cardboard - excess card that will not fit in recycling sacks

#### No plastics, soil or rubble

Please use your kitchen caddies to collect your kitchen food waste. The caddy can be lined with newspaper, with your food wrapped in this and then placed in the bin. Alternatively, you can use our approved corn starch caddy liners.

[Click here for further information about your Brown Bin](#)



## Your brown bin

The brown bin is for waste that can be composted. This is generally food waste and garden waste. Organic waste, such as food produces methane when sent to landfill. Methane is 23 times more potent than carbon dioxide as a greenhouse gas.

We compost the waste that we collect from the brown bins at an In-Vessel Composting plant (IVC) at Heathfield near Kingsteignton. The waste collected from the brown bins is shredded and then fed into indoor, concrete bays where the environmental conditions (including temperature, moisture and aeration) are closely controlled. An IVC can compost large amounts of organic waste without using a large area and in a short space of time. Once the compost is removed from the bays it is left to mature before it can be used as a soil conditioner on local farmland.

It is essential that only items that can be composted are placed into your brown bin. If any other items (such as plastic bags) are placed into this bin, we will be unable to empty it. Even if plastic bags say that they are degradable, they should not be put into the brown bin. To help keep your brown bin and kitchen caddy clean you can buy the special compostable corn starch liners from South Hams District Council. You could also wrap your food waste in newspaper or use paper liners.

If you have more garden waste than will fit into your brown bin we will not be able to provide you with another brown bin, instead you will need to take your garden waste to a recycling centre, compost it at home or ask a private company to collect it from you. If you use a private company, ensure that they have a valid waste carrier's license.



### Local Recycling Centres

Bulky items and materials that SHDC can't collect can be taken to Totnes Recycling Centre on Babbage Road Industrial Estate. There are also recycling centres at Ivybridge and Kingsbridge.

For further information call Devon County Council Waste Management on 0845 155 1010 or see [www.southhams.gov.uk](http://www.southhams.gov.uk).

### What can be taken to Totnes Recycling Centre (Sep 11)?

#### Acceptable

- Recyclable materials
- Bulky household items e.g. furniture, carpets, household electrical equipment

#### Recycling facilities available:

- Glass bottles and jars
- Newspapers and magazines
- Card/Yellow Pages
- Aluminium and steel cans
- Textiles
- Garden/green waste
- Timber
- Metal/domestic appliances
- Fridges/freezers
- TVs / computer monitors
- Plastic bottles
- Clean mixed plastic packaging (see extra guideline at end of section)
- DIY engine oil
- Vegetable oil
- Car batteries
- Domestic batteries
- Energy saving light bulbs

#### Restricted

- DIY waste: 12 large bags/0.5 tonnes in 6 month period (EXCLUDES soil/rubble, plasterboard, asbestos, tyres - see Chargeable below)
- Household chemicals (e.g. pesticides, white spirit, bleach, old medicines, oil-based paint): 5 litres in 12 months
- Gas bottles\*
- Fluorescent tubes: 5 in 6 month period
- Noxious weeds\*

#### Chargeable

- Soil/Rubble and tyres

#### Non acceptable

- Commercial/trade waste, food, sharps/clinical items, animals, animal bedding, asbestos, plasterboard.

\*Just google 'Totnes Recycling Centre' for more info

### What about all the other stuff that I can't recycle here?

In fact, you can recycle almost everything - from aerosols to bicycles. But some things are still beyond the reach of most local councils and you'll need to make a little more effort...

Check [www.recyclenow.com](http://www.recyclenow.com) to find out what can be recycled locally and where to send the stuff that can't. For example, used mobile phones can be sent free of charge to several charities. Some commercial organisations will pay you for your old phone.

Notes:

### Why bother?

Recycling as much as you can will help conserve our valuable natural resources and energy supplies. It reduces the impacts of climate change and avoids landfill.

Given recycling keeps valuable resources in circulation, it also helps keep down the cost of goods that you buy.



Cost: none

£ Savings: low

Effort: low

CO2 saved: low

Why do it?

When we throw away food, we waste money and create landfill gas (see food section in workbook). In the South Hams our local council collects food waste and has it turned into soil conditioner at a local plant near Kingsteignton.

However, if you grow anything at all, then with very little effort, you could soon be treating your garden to a nutritious diet of homemade compost - a climate-friendly alternative to store-bought, peat-based versions.

The first benefit of composting is that you'll notice is a flourishing garden or window-box. Compost improves the nutrient levels of your garden's soil. It also reduces erosion and increases its water retaining capacity. It will reduce your dependency on expensive, commercially-available products which can deplete valuable, carbon-storing peat bogs.



Why use non-peat compost? Lowland peat bogs and their wildlife are threatened through peat extraction for garden composts. Dragonflies, butterflies and birds depend on peat for their survival. Across the globe, peat covers about 3% of global land surface, yet the amount of carbon stored within it is enormous - equivalent to twice that of all the world's forests combined. Peat develops very slowly, and so when peat is mined for garden compost it takes 1,000 years to replace every metre that is taken away. <sup>(6)</sup>

**Yes but... I only have pots and window-boxes, not a garden.** You don't need to have a garden to make and use your own compost. Technology has caught up with modern, compact living and today's bins and wormeries are totally sealed and come in a range of sizes. Once the composting stage is over, add the mix to a window-box or give it to a gardening neighbour.

You can make a traditional compost heap, or use a worm bin. There are many containers now on the market for making compost, although perfectly satisfactory ones can be constructed from scrap timber, old tyres, bricks or wire mesh. Advice on making a compost heap is widely available - see references below. Start a community compost project with help from Devon Composting Network see [www.dccn.org.uk](http://www.dccn.org.uk) .

A worm bin is a container housing a colony of special types of worm. Worm bins can be kept indoors (with careful management) or out, and are ideal for households with no garden, as they produce only a small quantity of compost and a liquid, which forms a concentrated plant food. There are a variety of worm bins available for sale, complete with "worm starter kits".



Do compost	Don't compost
Fruit and vegetable waste and peelings	Cat or dog excrement - contains dangerous organisms that won't be killed by the decomposition process
Tea bags and coffee grounds	Meat - attracts vermin and flies - unless you're using a Bokashi system
Crushed egg shells	Dairy produce - attracts vermin and flies
Grass cuttings, leaves	Fish - attracts vermin and flies
Shredded paper and soft cardboard	Disposable nappies - attract vermin and flies
Human and animal hair	Shiny card - because of the chemicals used in the printing process
Vacuum dust (only from woollen carpets)	Hard objects like fruit stones

For more info on making compost or using wormeries see: [www.recyclenow.com](http://www.recyclenow.com) or [www.gardenersworld.com](http://www.gardenersworld.com) . SHDC sell good compost bins for £12 (collected) versus £20-30 in the shops/online. Call 01803 861234. Also ask about discounted wormeries for SHDC residents.

Reminder

Suggested actions:

- |  |                                      |
|--|--------------------------------------|
| 1. Cut your spending– don't buy it (5.4)           | 4. Recycle – recover materials (5.7) |
| 2. Reduce - buy less (5.6)                         | 5. Make your own compost (5.16)      |
| 3. Reuse - fix it or give it to someone else (5.6) |                                      |

**What other ideas does your group have that aren't covered above?  
Add them below if you think they are relevant for you...**

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person & due date)...



### Reference

- [1] [www.recycling-guide.org/reduce.html](http://www.recycling-guide.org/reduce.html) - Reduce, Reuse, Recycle
- [2] [www.recyclenow.com/](http://www.recyclenow.com/) - Going greener in the garden
- [3 -5] BBC Bloom website
- [6] National Trust – Information about going peat-free

## Advice from Totnes Recycling Centre (Sep 11)

### **They take (please make sure everything is clean):**

- All plastic drink bottles (please squash and put lid back on)
- Plastic milk bottles (please squash and put lid back on)
- All plastic household cleaning bottles
- Pre formed biscuit or chocolate box trays
- Plastic sandwich containers
- Yogurt pots, margarine tubs, Ready meal containers etc
- Plastic fruit containers (unless made from expanded polystyrene)
- CDs & cases
- Plastic flower pots (must be clean)

### **They don't take anything not listed above – such as:**

- Anything contaminated with food, grease or oil (not clean)
- Anything made from 'biodegradable' plastic
- Anything made from more than one type of plastic
- Plastic bags
- Waxed juice type containers (Tetrapaks\*)
- Paint containers, plastic toys, videos, ink cartridges etc
- Pet food pouches or soft drink pouches
- Expanded polystyrene packaging including EPS food trays
- Individual crisp and shiny biscuit wrappers
- Anything lined with silver paper
- Cereal packet inners, Cellophane wrapping
- Toothpaste tubes or disposable razors
- Containers for hand and other skin creams (unless very clean)
- Any large items made from plastic - no furniture
- Bubble wrap, cling film

\*There's a Tetrapak recycling bank in the Heath Way car park.

# 6. Getting around



# Transition Streets

## 6.2 GETTING AROUND

Our decisions about how we get from A to B can have far-reaching effects. Planes, trains and cars all contribute to the growing concentration of climate change gases and pollution. But how do they compare and which is the worst?

The majority of the world's vehicles are powered by oil. Even those trains and cars powered by electricity usually rely on fossil fuels being burned in power stations.

Cars get us around in comfort and at our convenience, and surprisingly perhaps most (57%) car journeys are under 5 miles <sup>(1)</sup>. Fuel prices are generally increasing (due to issues with oil supply and demand among other things) and cars are expensive to run.

Congestion, fumes and parking add to our daily stress. Our cars pollute the air right here where we live. The World Health Organisation estimates that in the UK around 30,000 people a year die prematurely due to air pollution, most of it related to road vehicles <sup>(2)</sup>.

For comparison, a distance such as Totnes to Italy is around 1000 miles one way. Let's see the differences between our methods of transport over this kind of distance...

Transport	CO2 Emissions <i>per passenger</i> for 1000 miles
Plane	275.2 kg
Large Car	138.1 kg (with 3 people in)
Small Car	68.4 kg (with 3 people in)
Train	92.9 kg
Coach	48.3 kg
Bike	0 kg
Walking	0 kg <sup>(3)</sup>



If we can all reduce our private car use, then we can save money and our communities, both local and global, will also benefit enormously.

Fewer cars on the road means cleaner, less polluted air to breathe, leading to fewer asthma and breathing problems. Less cars also means more peace and quiet, and sense of space. Globally, reducing our CO2 emissions will leave many of our fellow humans in their homes, rather than on flooded plains.

Each of the actions below can significantly reduce the cost of running your own car, as well as improve your local and global environment. – while still getting you from A to B.

It can be very useful to complete a travel diary to help you understand your own travel needs, especially your regular journeys (see page 6.22), and to identify which of the following actions are most appropriate for you.

Some of the following actions will cost you little or nothing, and those costs you do incur should be offset by your savings. In your group, have a chat about each item and then decide which ones you want to tackle and when. Record your own action plan at the end of this section.

- **Fuel efficient driving** (6.4)
- **Get on your bike** (6.6)
- **Walk this way** (6.8)
- **Take buses and trains** (6.10)
- **Use car clubs** (6.12)
- **Try lift sharing** (6.14)
- **To fly or not to fly?**(6.16)
- **Holiday in the UK** (6.18)



Cost: none

£ Savings: med

Effort: low

CO2 saved: med

## Solution

Changing **how** you drive could save more energy than changing **what** you drive. Fuel-efficient driving has a huge impact on our fuel use and hence our emissions - so much so that it has been included in driving tests from 2008.

It's easy to do, in fact it's lots of little actions that add up - everything from checking your tyre pressures to taking a few miles an hour off your motorway speed.

## Your savings

The way you drive can cut your annual fuel consumption by 10% - translating to savings of around £120 a year for a typical car. It also significantly reduces your CO2 emissions. <sup>(5)</sup>

In fact just by driving at 70mph rather than 80mph, this reduces your fuel use and CO2 emissions, by almost a third. Also you are less likely to have or to cause an accident at lower speeds. <sup>(5)</sup>



**Yes but... If I close the windows and switch off the air-conditioning in July, I'll cook.** If you're overheating on the motorway, it's more fuel-efficient to use air-con than opening the window or sunroof. At lower speeds, opening windows is more efficient.

- Get your car serviced regularly for more efficient motoring.
- Stay at or within the speed limit - at 70mph you use about 9% more fuel than at 60mph, and 15% more than at 50mph.
- Keep your tyres inflated to the correct pressures. Under-inflated tyres create more resistance when your car is moving, so your engine has to work harder.
- Improve aerodynamics and reduce drag by leaving the roof rack at home and closing the windows and sunroof.
- Be gentle with your right foot - rapid acceleration takes a heavy toll on your fuel tank.
- Anticipate road conditions and drive smoothly, avoiding sharp acceleration and heavy braking.
- Don't idle – this uses more fuel in ten seconds than turning the engine off and on. Drive away immediately when starting from cold.
- Check your revs. Move up a gear before 2,500 rpm in a petrol car and 2,000 rpm in a diesel.
- Don't carry around unnecessary weight - empty your boot.
- Use air conditioning sparingly as it significantly increases fuel consumption.
- Plan your journeys to avoid congestion, road works and getting lost.
- Try combining your trips.
- Avoid short trips - a cold engine gets through fuel almost twice as quickly as a hot one. (Conveniently, these journeys are the easiest to walk or cycle.)
- If you're stuck in a jam, switch the engine off if you expect to be there for more than a minute or two.

More info: Watch very useful 20 minute 'Eco Driving Film' on [www.devon.gov.uk](http://www.devon.gov.uk) . Also see [www.energysavingtrust.org.uk/travel](http://www.energysavingtrust.org.uk/travel) .

# Transition Streets

## 6.6 GET ON YOUR BIKE

The Practical  
Action Plan

Cost: low-med

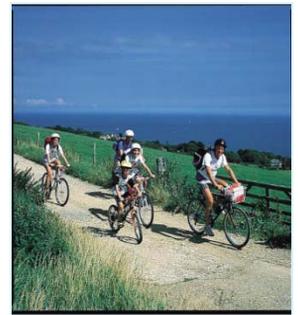
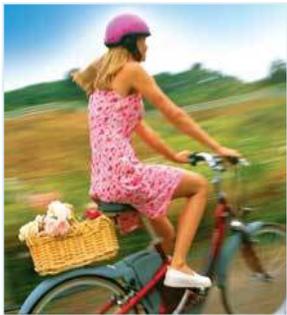
£ Savings:  
varied

Effort: varied

CO2 saved:  
varied

Solution

Cycling keeps you fit - it's fast, cheap, reliable and good for the environment. The transport of choice for the healthy and the climate conscious, bicycles are almost greenhouse-gas-free, good for the heart, and cheap - yet they account for less than 2% of journeys in the UK. The emphasis is often put on cycling as a leisure pursuit, or something to do on Sundays with your children. However, it's amazing how much you can do practically with your bike rather than the car – especially with a good set of panniers. <sup>(6)</sup>



### Your savings & other benefits

- Cycling 20 miles/week reduces the risk of heart disease to less than half that for non-cyclists. Also you'll be as fit as someone 10 years younger. <sup>(6)</sup>
- Beat the queues - often the fastest way to get around town and you can park anywhere for free.
- A good set of panniers on your bike can mean no more lugging all those heavy bags across town. Pack them up in the shop & pop them straight on.
- It's cheap! A good bike costs around £75/yr or less to maintain. And of course, you save on the petrol and wear and tear costs on a car.
- The exhilaration! Whizz down hills with the wind in your hair...

**Yes but... what about safety?** It's true you're safer in a car than on a bike: the stats suggest that cyclists are more likely to be killed on the road than car drivers, and more likely to be injured. That said, you're actually more likely to have an accident just walking on a pavement than cycling in the UK.

- Buy a bike from your local shop, your local recycling centre or the free-ads. If you use it for work save 30-50% through the government's [www.cyclescheme.co.uk](http://www.cyclescheme.co.uk). You can even get folding bikes.
- Get your bike ready for action - keep it well-maintained, and somewhere handy and accessible, along with your kit ( a lock, lights, helmet, waterproofs and a high visibility vest). Ask about Dr. Bike at the TTT office.
- Transform your bike into a transport option, not only a leisure bike. Get some bike panniers, baskets and a rack so your bike is a realistic prospect for shopping trips.
- Get used to cutting out the car. Work out your regular short trips and try them on your bike.
- Plan ahead - leave enough time to get there in a leisurely fashion. Cycling can be both exhilarating and peaceful, and sometimes the journey is more fun than arriving.
- Find a safe bike route to school for your children. Cycling to school, either on a tandem or independently of your child, or with them in a trailer or bike seat, is another great way for kids to learn road safety, and get some exercise.
- Join your local cycling group (contact Julian Burn on 01803 863878) and gain confidence through cycling in a group – or 'buddy-up' with someone who does the same route as you and get used to it together.

Notes:

More info: Get a free regional cycling action pack and other tips from [www.sustrans.org.uk](http://www.sustrans.org.uk) plus information on cycle routes . In the Totnes area these include a great route along the quiet back lanes to the coast at Slapton, shorter cycle paths to Sharpham and Dartington, as well as many routes across Dartmoor for the more adventurous.

# Transition Streets

## 6.8 WALK THIS WAY

The Practical  
Action Plan

Cost: none

£ Savings:  
varied

Effort: varied

CO2 saved:  
varied

Solution

- Only 30% of men and 20% of women in the UK are as fit as they should be for their age. <sup>(6)</sup>
- In 1971, 80% of children walked to school without an adult, by 2006 the figure was 12%. <sup>(7)</sup>
- Walking burns approximately the same amount of calories per mile as running. <sup>(8)</sup>

Walking is the greenest and healthiest form of transport there is. As so many car journeys take place within a short distance of home, it is the first place to start when cutting back on car use. Away from the roads, even in the South Hams, there's a whole network of green lanes and tracks, not to mention the coast path, that will take you to places you could never have dreamed of in your car.

Notes:



**Yes but... I don't have time.** If you live within about a mile of your local town then by the time you have got in the car, started it up and found a parking place you often could have completed the journey on foot.

**It's raining and cold.** There's no such thing as bad weather – just the wrong clothing! All you need is a good set of waterproof trousers and a jacket with a hood, waterproof shoes or boots and you can walk for hours staying snug and warm. You can always take a rucksack and change when you get there.

### The first step

- If you travel to work or to take your children to school, try walking part of the journey either there or back. You could get off the train or bus a stop earlier or park your car further away.
- Join a group - healthy walking programs are often organised by ramblers' groups, medical practices, councils and health authorities.
- Join the walking bus for your children's school run, or organise one.
- Get the kit – waterproofs and comfortable walking shoes are essential. Wheeled shopping trolleys help with the shopping load.



## Your savings and other benefits

- Walking leads to the release of the body's natural happy drugs - endorphins. You'll feel good and sleep better. And save on petrol costs.
- Unlike catching the bus or train, you can set your own schedule.
- Fit walkers are less likely to fall and suffer injuries such as hip fractures because the bones are strengthened.
- Walking keeps your weight down, your heart strong, reduces blood pressure and increases bone density. You can enjoy our local environment.

More info: Practical advice at [www.ramblers.org.uk](http://www.ramblers.org.uk) . See walks in South Hams at [www.kingsbridge.info](http://www.kingsbridge.info) or at the Tourist Info Office on The Plains.

Cost: varied

£ Savings: varied

Effort: varied

CO2 saved: varied

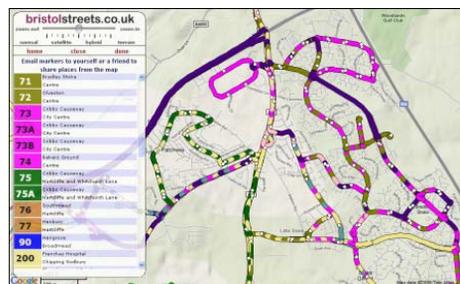
Solution

- Half of us have never used the bus, yet 87% of us live within a 6-minute walk of a stop . (6)
- 70% of people (outside London) travel to work by car. (6)

Buses, coaches and trains consume a lot of energy. But divide that by the number of passengers on a busy route and they're usually a far more climate-friendly option than cars or planes. We moan about public transport, but we do have local bus services, unlike much of the USA for example.

Taking the Eurostar from London-Paris instead of flying cuts your CO2 emissions by at least two thirds. Sleeper trains across France to Italy, Spain or southern France may have fewer passengers per car than Eurostar, but on the other hand they travel at only 100mph or less, and so use far less energy than a high-speed train. (9)

Rail is a fast and relatively carbon-friendly way of getting from place to place. Driving to Exeter from Totnes costs more than an advance return ticket on the train, especially with car-parking.



**Yes but... I don't have time to take the train or bus.** Sometimes public transport can be quicker, especially long distances. South Hams & Torbay buses are not always frequent, but with forward planning many journeys are possible that at first glance would seem car-only options.

**The train's too expensive.** According to a National Consumer Council survey, 8/10 people said they would travel by train more often if it were cheaper. However cheap deals are often available depending on the destination, and how far in advance you book.

### Next steps

- Get hold of all the local bus timetables and keep them handy.
- Buy a Devon & Cornwall Railcard for £10 a year for 1/3 off your off-peak journeys ([www.firstgreatwestern.co.uk](http://www.firstgreatwestern.co.uk)). Great deal!
- See [www.moneysavingexpert.com](http://www.moneysavingexpert.com) for ways to cut your train costs further. In fact, this is a great site for saving money everywhere!
- Book way in advance for the best prices. Try the Guardian's cheap train travel tips webpage.
- Try the cheap deals available with Megabus and Megatrain (coach and train tickets from, for example, Exeter to London - 4 hours - is £6).
- Use [www.TransportDirect.info](http://www.TransportDirect.info) on-line journey planner to find out how to get to you destination by any transport you chose.

### Your savings & other benefits

- If you can use only public transport then you could consider selling your car – a cash boost plus ongoing savings.
- Taking the local bus to town can give you the chance to meet other people, or much-craved time alone with your ipod!
- Buses can certainly be a good option for getting into Totnes and back again, where parking places are not only rare but also expensive.
- On trains you can work, relax, doze off and let somebody else take on the stress.

### Notes:

#### Plane effects?

A study shows that the reading ability of 12-14 year olds whose schools lie under flight paths is impaired by 23%, while children of all ages are more likely to develop anxiety disorders when routinely exposed to aircraft noise. <sup>(10)</sup>

More info: Contact Devon Bus at 01392 383800. Also Totnes Community Bus & Bob the Bus run around town – call 01803 863168 for details. For rail info see [www.nationalrail.co.uk](http://www.nationalrail.co.uk) call 08457 484950 or call in at Totnes station.

Cost: varied

£ Savings:  
varied

Effort: varied

CO2 saved: high

## Challenge

Just one long-haul flight could produce more emissions than the rest of the carbon footprint from everything else you do in a year. Over 50% of us say we are more concerned about the effects of flying than 5 years ago, but only 8% of us actually fly less. <sup>(6)</sup>

UK holidaymakers find it very hard to compromise when it comes to flying. According to a survey by Loughborough University, fewer than 1 in 5 of us are trying to reduce the number of flights we take for environmental reasons. <sup>(6)</sup> Long-haul flights have the biggest climate impact of all our travel – but this seems to be a tough luxury to quit, and more of us are flying further than ever before. This makes it one of the world's fastest growing source of greenhouse gases.

It is really the huge distances covered when we fly that is the problem and by 2050 plane travel looks set to undo all the carbon savings we make elsewhere.



**But don't developing countries depend on money from tourism?** While it's true that tourism is a major source of income for developing countries, this wealth will not often 'trickle down' to local people. Most of it goes to the owners of the hotels, the safari parks etc. Meanwhile the impact of the flight contributes to, for example, worsening famine in parts of Africa. And in fact 45% of air journeys in Europe are less than 500km – about the distance from London to the Scottish border. <sup>(6)</sup>

## 6.13 TO FLY OR NOT TO FLY

## Solution

Who flies? And who pays the true price? Only about 5% of the world's population has ever flown. This minority, flying more and more often, lives mostly in industrialized countries. Climate change consequences, however, mainly affect those who have contributed little to it, i.e. people in developing countries. <sup>(11)</sup>

It's almost impossible to keep our carbon footprint at a sustainable level if we fly, especially long-haul. <sup>(11)</sup> Unlike heating or washing, flying is, after all, a luxury. So what's the alternative?

Taking the train, ferry or coach to Europe, or holidaying in the UK, can substitute for a long-haul holiday. Otherwise taking the time to travel overland can be a good solution. See [www.seat61.com](http://www.seat61.com) for accurate info about how to get to any world destination without flying.

The debate about offsetting flights is ongoing. See Local charity Moor Trees at [www.moortrees.org](http://www.moortrees.org) for the 'pro' arguments. Meanwhile Friends of the Earth, Greenpeace and WWF-UK have expressed "strong concerns over [offsetting schemes'] environmental credibility".

## Your savings and other benefits

- The journey becomes more part of the experience, rather than just getting there. You go slower and watch the scenery and culture change.
- No airport queues, delays, no tiny seats eating bad food, no jet lag, and less noise pollution for the millions living under the flight paths.
- Explore the many wonderful places in the UK & Europe – you can still reach the sun in less than a day (depending on the time of year!)
- Enjoy the adventure of overnight 'couchettes' and the idiosyncrasies of long-distance travel across other countries and cultures.
- Personal satisfaction and massive carbon savings..

More info: [www.co2balance.co.uk](http://www.co2balance.co.uk) or [www.flightpledge.org.uk](http://www.flightpledge.org.uk)  
[www.planestupid.com](http://www.planestupid.com) or [www.baa.com](http://www.baa.com)'s corporate sustainability section for both sides of the debate.

# Transition Streets

## 6.14 USE CAR CLUBS

The Practical Action Plan

Cost: medium

£ Savings: med-high

Effort: low

CO2 saved: med-high

### Challenge

Are you hostage to the costs of a car you hardly use? As well as the purchase price and depreciation, overheads like road tax, insurance, servicing, repairs and MOT all add up. (See how much your car costs you a year using the calculator at [www.liftshare.com](http://www.liftshare.com)).

But can you really get rid of it? What would you use instead when a car is the only real option? A 'pay-as-you-go' car club could save you money and cut your mileage even further.



### Solution

Car clubs let you book a car online, then pick it up from a central parking place. You just pay for the time you use it and the miles you drive. Infrequent drivers save money and generally cut their mileage by about 2/3rds. Contact Eco Cars in Totnes on 07753 325014.

**Yes but... will I really save money as I need to use a car a lot.** Car clubs aren't such good value for frequent drivers. Although the Financial Times has estimated that, once you factor in the depreciation in your car's value, a motorist who drives locally and infrequently could save up to £2,000 a year, a pay-as-you-go system will clobber regular drivers. As a rule of thumb, if you drive five or more times a week, it's probably not for you.

## Your savings

Using the car 7.5 hours a week on average will save ~£1,500 a year on the total cost of running a reasonable 2<sup>nd</sup> car - and you won't have had all the hassle of cleaning, taxing, insuring and maintaining it .

Also car-clubbers tend to combine journeys to avoid multiple short trips, leading to significant carbon savings.

They also tend to replace short trips with a combination of walking, cycling and public transport. And each car-club vehicle replaces 6-10 on the road and in the car parks.

Notes:

More info: a car club is now available in Totnes, run by not-for-profit local organisation called Eco Cars. At the time of writing the day rate is £21.60 and starting charges are £1.90/hr at 14p mile. Annual membership is £50 a year with the first 50 miles free. For more info or to register call 07753 325014.

Cost: low

£ Savings: med-  
high

Effort: low

CO2 saved:  
med-high

## Solution

There are a few online life-sharing (car-pooling or car-sharing) schemes where you can offer up spare seats in your car – usually on a regular journey - or find others that go your way.

If you don't fancy joining an official scheme you could always set up your own mini system of lift-sharing with friends, work-colleagues, or neighbours! Ask around and see who may want to share your trip.

## Your savings and other benefits

- Car-sharing commuters save an average of £350 a year compared to driving alone .
- You can also claim 5p per mile per passenger from your employer when you carry work colleagues as passengers on a business trips. Read more about it on HM Revenue and Customs website.
- Enjoy the company! You might meet incredible individuals and new friends that you would never otherwise have met .



There's a new company called [www.avego.com](http://www.avego.com) that's using technology to better match peoples' lift share needs.

GPS, i-phones and the web work together for real-time info on who is going where and when. Interesting to see how this enables easier sharing.

Advice on personal safety from Devon County Council for those using their lift-sharing scheme (which applies to anyone who shares a car with a stranger):

- Every member is responsible for his or her own safety.
- Avoid exchanging home addresses with your travelling companion before you meet them or arrange to meet in a public place.
- Inform a friend or family member of who you will be travelling with, when and to where.
- Make sure you show each other some official ID so you know you're travelling with the right person.
- You are under no obligation to go ahead with any liftshare. If you have any doubts about your travelling companion, for any reason, you should avoid travelling with them.
- It is your responsibility to check that the person you are sharing with has all the legal driving documents such as driving licence, car insurance, MOT and car tax.

### Notes:

A word on hitching... for many adults, hitching is a free and easy way to get from A-B, a wonderfully exhilarating taste of freedom and spontaneity. It's generally easy to thumb a ride in the South Hams and Torbay area, and some people use it regularly to get around. Obviously you need to be safety conscious: - travel with a friend, let a driver pass on if you don't feel comfortable about getting in their car, know your route and be assertive.

More info: see [www.carsharedevon.com](http://www.carsharedevon.com) run by Devon County Council. This is free to use and travellers usually share the petrol costs. Other websites include [www.freewheelers.co.uk](http://www.freewheelers.co.uk) and [www.liftshare.com](http://www.liftshare.com).

Cost: varied

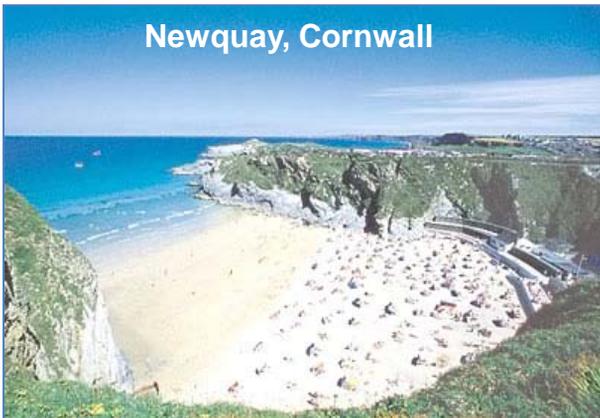
£ Savings:  
varied

Effort: low

CO2 saved:  
med-high

## Solution

The UK can't be such a bad place for a holiday - after all, it attracts around 32 million overseas visitors every year. But is it a tempting enough proposition to make us give up our foreign trips? Overseas travel, as consumer surveys routinely report, ranks alongside such pleasures as moving house, changing bank account and passing a kidney stone as a source of stress and anxiety. Yet despite this, the environmental impact of flying, and the fact that many of us think Britain is becoming a better place to spend holidays, millions of us would still rather go abroad. In fact more Brits have been to Barcelona than Bath.



Newquay, Cornwall



Lake District

**Yes but... what about the British weather? I don't want to sit and watch the rain for a week.** Of course we are often put off holidaying in the UK by the risk of bad weather, and during heat waves and hotter summers we do book fewer foreign holidays. As climate change progresses over the next 60 years, popular tourist spots such as Spain's Costa-del-Sol may become too hot for us and it's predicted we'll take more holidays at home. Until then, if you want to sunbathe on a beach, the UK may not always be for you.

**It's cheaper to go abroad than holiday in the UK.** Hmmm can be true, this depends what you do and when you do it – renting cottages with friends, houseboats or camping are generally more affordable options.

1. Walking in the Lake District or the Pennines – check out all 14 National Parks at [www.nationalparks.gov.uk](http://www.nationalparks.gov.uk) .
2. Learn to surf - take a surf holiday on the Cornish Coast.
3. Go see [www.guardian.co.uk](http://www.guardian.co.uk) Top 10 UK lists e.g. 'Best City Breaks'.
4. Visit Britain's Heritage Cities such as York, Durham, Bath.
5. Go to sleep in London, wake up in the Scottish Highlands on the Caledonian Sleeper train from £19 single.
6. Stay in a castle in Scotland's most beautiful youth hostels - see the Scottish Youth Hostels website [www.syha.org.uk](http://www.syha.org.uk).
7. Hire an historic building with your friends, through the Landmark Trust or National Trust.
8. Stay for free on an organic farm in the UK with 'World Wide Opportunities On Organic Farms' [www.WWOOF.org.uk](http://www.WWOOF.org.uk).
9. Find environmentally friendly holidays at [www.greentraveller.co.uk](http://www.greentraveller.co.uk).
10. Go camping or caravanning – see the Camping & Caravanning Club.
11. Stay on a houseboat – contact the Inland Waterways Association.
12. Volunteer, learn new skills and get a very cheap holiday at [www.btcv.org.uk](http://www.btcv.org.uk) .



Reminder

Possible actions:

- Fuel efficient driving (6.4)
- Get on your bike (6.6)
- Walk this way (6.8)
- Take buses and trains (6.10)
- Use car clubs (6.12)
- Try lift sharing (6.14)
- To fly or not to fly? (6.16)
- Holiday in the UK (6.18)

**What other ideas does your group have that aren't covered above?  
Add them below if you think they are relevant for you...**

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person & due date)...



It seems that giving up our cars is one of the hardest things to do. Obviously, this is influenced by the cost and availability of suitable public transport options. Given this may take some time to change.. .

- What sort of changes would you need to make in your life to significantly cut your dependence on your car?
- What would your friends and family think?
- How do you feel about the 'to fly or not to fly' question?

Don't forget to ask someone in your group to contact the project office to let us know the date of your last session, so that we can invite the facilitator to your 'wrapping up' session (if you are happy that they come along).

Notes:



- [1] [www.dft.gov.uk/about/strategy/transportstrategy](http://www.dft.gov.uk/about/strategy/transportstrategy)
- [2] [www.bbc.co.uk/bloom/guides/transportemissions.shtml](http://www.bbc.co.uk/bloom/guides/transportemissions.shtml)
- [3] [www.transportdirect.info](http://www.transportdirect.info)
- [4] [www.guardian.co.uk/starbucks-ethical-living/ethical-holiday-choices](http://www.guardian.co.uk/starbucks-ethical-living/ethical-holiday-choices)
- [5 & 6] BBC bloom website
- [7] [www.walktoschool.org.uk](http://www.walktoschool.org.uk)
- [8] [www.about.com:walking](http://www.about.com:walking)
- [9] [www.seat61.com/CO2flights](http://www.seat61.com/CO2flights)
- [10] [www.monbiot.com/archives/1998/05/23/go-home/](http://www.monbiot.com/archives/1998/05/23/go-home/)
- [11] [www.atmosfair.de/index.php?id=56&L=3](http://www.atmosfair.de/index.php?id=56&L=3)
- [12] [www.climatmundi.fr](http://www.climatmundi.fr)

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# 7. Wrapping up



# Transition Streets

## 7.2 WRAPPING UP



Well done! You have now completed the main content of the Transition Streets programme. This session is all about evaluating and celebrating your achievements, and deciding whether your group wishes to continue working together.

There are a number of optional workshops and activities that you may wish to try, or you may already have formed your own plans about the next steps for your group – for example, going again through the sessions and picking up some new actions, or starting to explore some of the advanced (often more expensive) options presented at the end of some of the chapters.

If you decide to continue (and we sincerely hope you do) then it's probably helpful for you to agree the purpose of the group moving forward, how often you'll meet and so on.

It may be useful to plan perhaps another 7 sessions and then have another evaluation, rather than agreeing an indefinite programme.

You may wish to get more involved in other community activities that are looking at reducing our energy dependence, such as Transition Town Totnes (who runs this programme). More information is provided later in this section and if you invite the facilitator to this session they will give you more details too.

The following pages cover:

- Final evaluation (7.3)
- Optional events (7.4)
- About Transition Town Totnes (7.5)
- Next steps (7.7)
- Celebrate!

**The Practical  
Action Plan**

# Transition Streets

## 7.3 FINAL EVALUATION



How did you do?

Please now complete the ‘after’ section of the evaluation form that you started at the beginning of your very first session. Hopefully you will clearly see your progress as you add up the number of actions you have completed, or which are still in progress (possibly some of which were already underway before you started Transition Streets).

Also please complete the feedback section at the end of the evaluation form to let us know what you liked, and what you didn’t like about the programme. Many thanks.

The completed forms need to be collected together and sent to the project office at Transition Streets, 43 Fore Street, Totnes, Devon, TQ9 5HN or hand them to the facilitator.

We will process them (we are keeping track of the overall impacts of the programme) and then – we hope - return them to you, along with some summary information for what your group achieved. Of course, this you can also assess yourselves during this final session, but please always send us back the completed evaluation forms.

### Transition Together – evaluation form

Please complete this before your first session (the blue bits), and then again at the end of your last one (the green bits). This will help you see what changes you have made. It also helps us to evaluate the impact of the whole project.

Your name: \_\_\_\_\_  
Date of first session: \_\_\_\_\_

Your group’s name: \_\_\_\_\_  
Date of final session: \_\_\_\_\_

PLEASE COMPLETE THE BLUE COLUMNS AT THE START OF THE PROGRAMME:					AND THE GREEN ONES AT THE END OF THE PROGRAMME:				
1.	What do you hope to gain from being part of Transition Together (please list up to 3 things):				Did you meet your objectives (e.g. all, most, some, none):				
	<b>In this section, please rate the following statements:</b>	<b>Strongly agree</b>	<b>Somewhat agree</b>	<b>Somewhat disagree</b>	<b>Strongly disagree</b>	<b>Strongly agree</b>	<b>Somewhat agree</b>	<b>Somewhat disagree</b>	<b>Strongly disagree</b>
2.	I feel positive about the future.	1	2	3	4	1	2	3	4
3.	I feel that a strong sense of community is important in these uncertain times.	1	2	3	4	1	2	3	4



### Website

If you haven't already visited our website, and you have internet access, then please see [www.transitionstreets.org.uk](http://www.transitionstreets.org.uk).

It provides general information about the group skills workshop that you may wish to explore, if you haven't already.

If you don't have internet access but want to know dates of workshops, for example, just call the main contact number.



### Notes:

### Your stories

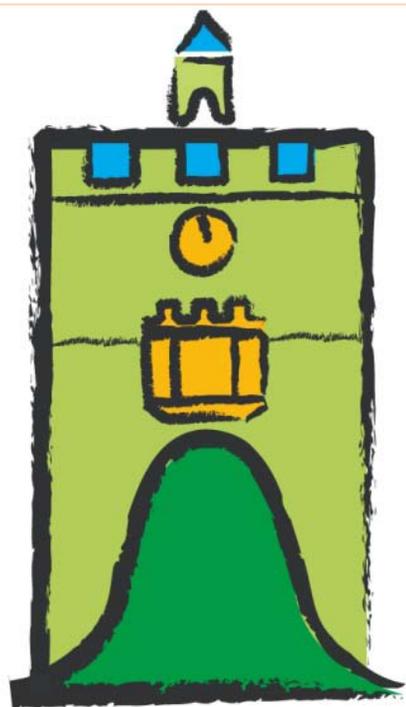
Would you like to write a 'success story' about your group? Would you be willing to supply us a quote about your experiences of doing the project, so that we can tell other people about how it has been for you? We can put these on the website and use them to help inform others about the benefits of Transition Streets. If so, please call or email us and we'll give you some help.

**Contact Transition Streets:** call 01803 867358, email [transitiontowntotnes@gmail.com](mailto:transitiontowntotnes@gmail.com) or write to us at Transition Streets, 43 Fore Street, Totnes, TQ9 5HN. We are on the web at [www.transitionstreets.org.uk](http://www.transitionstreets.org.uk)



Totnes is the world's first Transition Town. Transition Town Totnes (TTT) is a community process by which we, the residents of Totnes and its surrounding parishes, are taking action to make the transition from being oil-dependent and vulnerable, to a more secure, enjoyable and re-localised future, whilst maintaining and enhancing the quality of life we enjoy in our special part of the world.

As of September 2011, Totnes has inspired over 382 other Transition Initiatives in the UK and around the world, in 34 countries. Every Transition Initiative is based on a simple recognition that life with lower energy consumption is inevitable, and it's better to plan for that than be taken by surprise. The Transition movement has inspired thousands of people across the world to get to work re-localising and creating new alternatives to oil-dependency in all sorts of areas, from local food, education and energy, to transport, building and business.



TRANSITION TOWN  
**TOTNES**

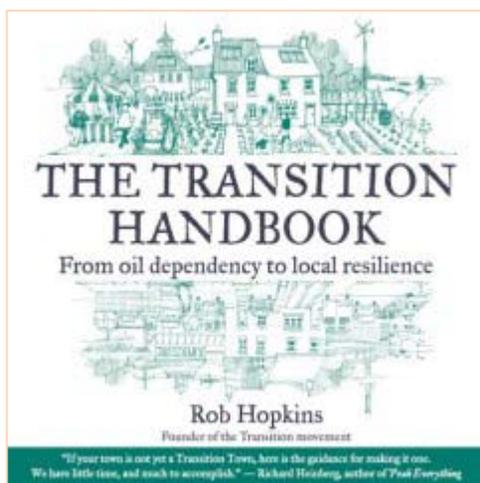




There are a number of reasons why we think making this transition is necessary, but essentially we are exploring and developing ways to regain control of our own affairs. We are strengthening our communities and taking responsibility for every aspect of our lives. For further reading about Peak Oil see the section at the end of this chapter.

While our task may be serious, our approach is fun and welcoming. Whether you are a doer or a thinker, a farmer or a banker, a mum or a dad, an elder or a nipper, there are plenty of ways you can be involved. There are projects and activities looking at our food, local business, jobs, energy, arts, housing, building, education, transport, health and well-being, emotional support ... and more.

Would you like to continue to be part of a process that strengthens and rebuilds our friendly, vibrant community, and enhances our quality of life? Would you like to be part of one of the most exciting movements in modern times, at one of the most exciting moments in history?



Transition Town Totnes – it's right here on your doorstep – please join us. See [www.transitiontowntotnes.org](http://www.transitiontowntotnes.org), call 01803 867358 or email [transitiontowntotnes@gmail.com](mailto:transitiontowntotnes@gmail.com), and we'll help you find the best way for you to get involved.

# Transition Streets

## 7.7 YOUR NEXT STEPS



### Where to now?

Think about where you will go from here, either on your own or with some or all of your group.

Will you continue to complete the basic actions, come up with some new ones, do some of the optional sessions, get more involved with TTT or other local community groups, lobby the government for better leadership on sustainability issues, join the next protest at Heathrow, grow more carrots..?



### Mentor

Would you like to become a Transition Streets mentor? Now you know what it's all about, you could help another group to get started and to get the most from the programme. This is a great way you can give back to your local community. Please contact us to find out more.

### Pay-it-forward

If you have enjoyed participating in this programme and would like others to have the same opportunity, then you could 'pay-it-forward'. Although this programme is funded at the moment, it can only cover the costs for a limited number of participants. If you would like to contribute something to the project, you can donate money that will enable another participant to undertake the programme for free, or rather, as a result of your own generosity. Each workbook costs about £10 to print, but the amount you donate is entirely up to you. If you would like to donate, please contact the office for more info, or drop in to see us with cheque or cash, or hand it to the facilitator – thanks.

And now – take the time to celebrate your achievements so far with your group!

# The end

(of the beginning of your journey,  
we hope!)



Thanks for your participation, we hope you've enjoyed it.

Transition Streets has been created by, and is managed by, Transition Town Totnes, with thanks to all of our expert reference sources.

[www.transitiontowntotnes.org](http://www.transitiontowntotnes.org)



Peak Oil is not about “running out of oil”. There will always be oil left in the ground, but it will become either too hard to reach or it take too much energy to extract.

Peak Oil is about the end of cheap and plentiful oil, the recognition that the ever increasing volumes of oil being pumped into our economies will peak and then decline. It’s about understanding how our current industrial way of life is absolutely dependent on this ever-increasing supply of cheap oil.

From the start of the 1900s, plentiful oil allowed a coal-based industrialised society to massively accelerate its “development”. From that time, each year there has been more oil used (apart from the two oil shocks in the 1970s when Middle East crises caused worldwide recessions). And each year, society has increased its complexity, its mechanisation, its globalised connectedness, its population, and its energy consumption levels.

The problems start when we’ve extracted around half of the recoverable oil. At this point, oil gets more expensive (in cash & energy terms) to extract. For the first time in history, we can’t increase the amount of oil that’s coming out of the ground, being refined & reaching the market. The oil supply will plateau and then decline, with massive ramifications for industrialised societies. Very few people are paying attention to this phenomenon, and it’s easy to understand why.

Peak Oil recognises that we are not close to running out of oil. However, we are close to running out of easy-to-get, cheap oil. That means we’re about to go into energy decline – that extended period when, year on year, we have decreasing amounts of oil to fuel our industrialised way of life.

The key concepts and implications of this are as follows:

- of all the fossil fuels, oil is uniquely energy dense and easy to transport.
- ever-increasing amounts of oil have fuelled the growth of industrial economies.
- all the key elements of industrial societies - transportation, manufacturing, food production, home heating, construction - are totally reliant on oil.
- understanding the depletion pattern of oil fields is crucial. There is a consistent pattern to the rate of extraction of oil - and this applies to individual fields, to an oil region, to a country and indeed to the entire planet.
- this pattern means that the flow of oil to the market, which has been steadily increasing over the past 150 years, will peak. After that, every successive year will see an ever-diminishing flow of oil, as well as an increasing risk of interruptions to supply. A growing body of independent oil experts and oil geologists have calculated that the peak will occur between 2006 and 2012.



It's difficult to overstate what this means to our lives in industrialised countries. Technological advances in oil extraction and prospecting will have only a minor effect on depletion rates, despite technological innovations. Here is the opening paragraph of a report prepared for the US government by an agency of experts in risk management and oil analysis:

"The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As peaking is approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented. Viable mitigation options exist on both the supply and demand sides, but to have substantial impact, they must be initiated more than a decade in advance of peaking." *Peaking of World Oil Production: Impacts, Mitigation & Risk Management. Robert L. Hirsch, SAIC (2005)*

Both Chevron and Total have both admitted that we're at the end of the era of cheap oil. Jeremy Gilbert, former Chief Petroleum Engineer at BP, in May 2007 said: "I expect to see a peak sometime before 2015... and decline rates at 4-8% per year"

In New Zealand in 2006, Helen Clark, the Prime Minister of New Zealand said "...oil price is very high because probably we're not too far short from peak production if we're not already there."

In Australia, the MP Andrew McNamara of the Queensland Oil Vulnerability Task force and newly appointed Minister for Sustainability talked of the importance of relocalisation in the face of oil depletion, saying:

"There's no question whatsoever that community driven local solutions will be essential. That's where government will certainly have a role to play in assisting and encouraging local networks, who can assist with local supplies of food and fuel and water and jobs and the things we need from shops. ...we will see a relocalisation of the way in which we live that will remind us of not the last century, but the one before that. And that's not a bad thing. Undoubtedly one of the cheaper responses that will be very effective is promoting local consumption, local production, local distribution. And there are positive spin offs to that in terms of getting to know our communities better. There are human and community benefits from local networks that I look forward to seeing grow."

But apart from a few notable exceptions, national leaders are not stepping up to address these problems in any meaningful way. So if political leaders aren't going to fix the problem, who is?



### Recommended films:

End of Suburbia: Oil Depletion & The Collapse of the American Dream ,

Peak Oil: Imposed by Nature

Power of Community – how Cuba survived Peak Oil

Crude Impact

A Crude Awakening: the oil crash

Money As Debt

11th Hour (produced by Leonardo DiCaprio)

What A Way To Go: life at the end of the empire

Manufactured Landscapes

How Many People Can Live on Planet Earth? – BBC Horizon Documentary about population and resources (available from TTT office on 01803 867358)

### Further reading:

The Transition Handbook – by Rob Hopkins

The Last Oil Shock – by David Strahan

Future Scenarios – by David Holmgren

Rob Hopkins “Energy Descent Pathways: Evaluating potential responses to Peak Oil”, self published MSc thesis, available from: [www.transitionculture.org/?page\\_id=508](http://www.transitionculture.org/?page_id=508)

### On Peak Oil

Excellent Peak Oil primer: [www.energybulletin.net/primer.php](http://www.energybulletin.net/primer.php)

ASPO – Association for the Study of Peak Oil -Source of much data & inspiration and where Peak Oil awareness started. [www.peakoil.net/](http://www.peakoil.net/)

The Hirsch Report – produced for the US government in 2005. Was almost lost until it gained prominence in 2006. Remarkable for the unequivocal call to urgent action in order to mitigate the effects of Peak Oil.

[www.netl.doe.gov/publications/others/pdf/Oil\\_Peaking\\_NETL.pdf](http://www.netl.doe.gov/publications/others/pdf/Oil_Peaking_NETL.pdf)

Books by Richard Heinberg:

‘The Party’s Over: Oil, War and the Fate of Industrial Societies.’ ‘Powerdown: Options and Actions for a Post-Carbon World’. ‘The Oil Depletion Protocol : A Plan to Avert Oil Wars, Terrorism and Economic Collapse ‘.

### Climate Change

The Intergovernmental Panel on Climate Change – the world’s most authoritative body assessing Climate Change [www.ipcc.ch](http://www.ipcc.ch)

A commentary by working climate scientists on breaking climate news stories [www.realclimate.org](http://www.realclimate.org)

Hadley Centre – the Met Office’s bureau for researching the potential effects of Climate Change. [www.metoffice.gov.uk/research/hadleycentre/](http://www.metoffice.gov.uk/research/hadleycentre/)

**With thanks to the Transition Network Online Primer.**



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