RANDOM HOUSE eBOOKS

Shades Of Green

Paul Waddington

About the Book

Few of us have what it takes to go ‘all the way’ on the green scale.

As fears about the food chain, climate change, plummeting biodiversity and the sustainability of our current lifestyles take hold, we are overwhelmed with information and advice on how to tackle these problems. But who’s right? Wouldn’t it be good to be clear about our range of options? And wouldn’t it be great to discover that sometimes what is best for the planet is not what we might think? In fact the easiest, most readily available or cheapest option may even be the greatest.

Whether you are pondering bicycles or baths, holidays or heating, pets or pasta, washing dishes or wine, this book sets out your choices on a scale from ‘deep green’ to ‘not even a little bit green’. No preaching. No finger-wagging.

Because being green is never black and white.

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SHADES OF GREEN

A (mostly) practical A–Z for the reluctant environmentalist

Paul Waddington

Introduction

Just exactly how ‘green’ are the various choices we make? Is it ‘better’ to use a dishwasher or wash up by hand? Is local food always ‘greener’ than stuff that has travelled thousands of ‘food miles’? Where are hybrid cars on a scale where 1 is tremendously green and 10 is Jeremy Clarkson? Is it better to sign up for green-tariff electricity or to stick a windmill on your roof? It’s often difficult to navigate the green minefield. There are a couple of good reasons for this. The main one is that we need to take a common view of what ‘green’ actually means. Does it always mean low mpg, low food miles, low technology and no fun? Or does it sometimes mean choices that are a bit less obvious? The second complication is that there are plenty of people out there telling us that their solution is the greenest, when maybe it isn’t.

‘Greenness’ used to be about railing against industrial and agricultural pollution, supporting biodiversity, saving the whale, finding alternatives to dwindling oil reserves. It’s still about these things – and thanks to the efforts of green campaigners we have cleaner rivers, tighter environmental legislation and a much better awareness of environmental issues. However, if we are to accept the global scientific consensus (and the few who reject it mostly have some sort of ideological axe to grind) then the big deal today is greenhouse gases, in particular CO_2, of which human activity produces more than the biosphere can comfortably deal with. Divide a sustainable level of anthropogenic (human-generated) CO_2 emissions by the world’s population and you come to an amount which each

of us should emit: this is currently 2.4 tonnes per person per annum, a quarter of the UK's current per-person CO_2 emissions of around 10 tonnes.

So the definition of 'green' in this book is firstly about the degrees to which the choices we make result in CO_2-emissions. Put this into context and it can look dispiriting. Britain is responsible for 2 per cent of global anthropogenic CO_2 emissions. Of these, less than 50 per cent are the domestic emissions we can easily control with our choices; and of these, space- and water-heating, travel and our food choices are the most influential. Feeling morose about it, we could mumble that even if, say, we all changed our light bulbs tomorrow, on a global scale it would affect a fraction of 3 per cent of a fraction of 2 per cent of energy use. It is undeniable that in the global scheme of things, successfully lobbying China to mandate total carbon-capture and storage technology in each new coal-fired power station it allegedly opens every week will have a vastly bigger impact on greenhouse-gas emissions than anything we can do in our houses. But lots of small changes 'scaled up' to national level have had a measurable impact before and are having one now: unleaded petrol, CFC-free aerosols or the move to mandatory energy-efficient boilers.

Beyond CO_2 emissions, 'green' in this book also denotes activities that use resources (e.g. water, agricultural land, wild fish) at a sustainable level, and that have no net deleterious effect on the biosphere. Here, again, small changes can make a big difference nationally, whether it's toilets that use half as much water or detergents that chuck fewer phosphates into our rivers.

But whatever choice it is you are contemplating – and despite what the vendors of wind turbines, hybrid cars or eco-holidays might suggest to you – being green is never black and white. There are always shades in between. And

whilst many of us may have decided not to do the least green thing, the very greenest thing may be too extreme.

So what are the ‘shades of green’ in the choices we make? Using an informal ranking that runs from ‘deep green’ to ‘not even a little bit green’, this book identifies and explains them. It’s not a rigid, scientific scale with green ‘points’; it’s designed to give you an idea of how green various different choices are. They are not always what you would expect; nor are they always strictly practical. Nor does the book cover all the choices we make; but for the things that have been omitted, you will most likely be able to work out the ‘shades of green’ for yourself. The things that have been chosen are those that have the most important environmental effect, and those that have interesting or unexpected ‘shades’.

The good news is that, whatever the choice you are making, in most cases there is a shade of green for everyone.

Aeroplanes

‘THE BEST THING we can do with environmentalists is shoot them.’ Ryanair boss Michael O’Leary’s decidedly un-relaxed attitude to green issues, hinted at in this November 2005 quote, shows how touchy the aviation industry can be about its rapidly growing environmental impact. It may account for only around 2–5.5 per cent of the UK’s CO_2 emissions (depending on whether you believe the industry or the government), but the issue with aviation overall is its projected rate of growth set against the CO_2 reduction targets to which the UK has committed itself. Emissions from the UK air-transport industry have more than doubled since 1990. Put the government’s forecast aviation growth by 2050 next to its commitment to reduce CO_2 emission by 80 per cent by the same year, and aviation will account for more than half of all CO_2 the country is allowed to emit. Go for the more serious emissions reductions that many are recommending, and no other activities would be allowed to produce any CO_2 if aviation continued to grow at current rates. The twin problems with aviation are the distances involved, which result in very large volumes of greenhouse gas per passenger; and the fact that those emissions, deposited as they are at high altitudes, cause additional ‘radiative forcing’ effects which are estimated to multiply the effect of the emissions 2.7 times. So even without the forcing effect, a family of four’s round trip to Disneyland in Florida puts nearly 8 tonnes of CO_2 into the atmosphere: it would take 48,270 kilometres of driving in the family Mondeo to create the same emissions. With no significant

efficiency gains in aircraft coming any time soon, it ain't easy to fly and be green.

Deep green:

No flying

Relax into an airliner's seat and you will emit less CO_2 per passenger kilometre than if you were in the back of a taxi. The difference, of course, is that despite the often wild claims of their drivers, taxis can't cover the 5,585 kilometres to New York in seven hours and they don't pollute the upper atmosphere. Just two such return flights will blow your entire annual 'sustainable' carbon allowance of 2.4 tonnes per year (see here). Short-haul flights are marginally less of an issue in carbon terms: London to Manchester by car potentially emits more CO_2 than flying – however, that's only if there's one person in the car. But short flights are less fuel-efficient overall because of the large fuel burn in take-off and landing. Even at its relatively economical cruising speed, an Airbus A320 (itself not a particular gas-guzzler amongst airliners) will burn through an average British car's annual fuel consumption in 36 minutes. And the hugely disruptive noise pollution from aviation, the environmental impacts of airports and lower-level atmospheric pollution all conspire with its global-warming impact to make it one of the least green of human activities. There are shades of green with most of the things we do – but not many with flying. If you do fly to any significant degree, stopping flying or flying as little as possible is the single most environmentally positive thing you can do.

Dark green:

No flying (see above)

Quite green:

No flying (see above)

Light green:

No flying (see above)

Pale green:

Extremely infrequent flying, offset, preferably, with serious carbon-reducing lifestyle changes

Many deep greenies blanch at the mere suggestion of flying and have resigned themselves to a future of long, complex train journeys or slow sojourns by sea, local holidays and video-conferencing. But some of us have to fly, some of the time. You can offset your emissions, of course: it costs about twelve quid to offset the New York return flight by contributing to schemes that reduce CO_2 elsewhere. But offsetting is fraught with controversy and riddled with eco-snake-oil salesmen. Will the money that the offsetter invests on your behalf in, say, a developing-world renewable energy project really compensate for the big chunk of greenhouse gas you have just delivered directly into the stratosphere? Does offsetting every flight – even with the most reputable offsetting firm – make it OK to carry on as before? There are no straight answers to these questions: but doing something positive is always better than doing nothing. If you have to fly and wish to ‘atone’ for it in a way that you can measure yourself, then major carbon-reducing lifestyle changes are the best way

forward: tackling car use (see here) and domestic space-and-water heating (see here) will take the biggest bites out of your carbon footprint.

Not even a little bit green:

Personal airliner

Time was when Concorde was the best way to give the planet a good kicking. Guzzling 13,000 litres of kerosene per hour at full power, and double that when its afterburners were lit up for take-off, Concorde made a small private jet look like an environmental statement. With only one hundred passengers and flying at a high altitude where its emissions could do the maximum damage, Concorde was the eco-hooligan's ride of choice. Today, sadly, with private jets consuming a measly 600 or so litres per hour and Concorde no longer available, planetary vandals must look elsewhere. A private airliner is the best solution: the Boeing 767 purchased by the founders of Google (informal motto: 'Don't be evil') and reportedly fitted out for fifty passengers would, with its 7,400 litres per hour kerosene habit, give a per-person fuel consumption that puts Concorde in the shade and even beats the mighty Air Force One.

More Information

Offsetting flights: www.climatecare.org

Apples

APPLES PROVOKE MUCH dithering amongst those who fret about fruit and the environment. And rightly so, for the search for the sustainable apple is fraught with tricky detail. The problem is mainly about climate and its consequences. The season during which fresh British apples can be plucked from trees runs from late July to October. For the other two-thirds of the year, the apples we eat are either stored locally grown varieties or imports, from as far away as New Zealand. Storage, these days, mostly means refrigeration, which needs power. And with the relatively low fuel consumption per apple of sea freight, some antipodean apples may be responsible for fewer overall emissions than British ones that have spent many months in an industrial fridge. Then there is the organic issue: pest- and disease-prone apples are difficult to grow organically on a commercial scale and yields are 25 per cent lower. Yet conventional apples often contain residues of the many substances with which they are sprayed. What is the green apple consumer to do?

Deep green:

Your own apples, traditional storage

This is not as daft as it sounds. Assuming that an average British garden is 100 square metres and a small orchard could be planted on half of it, this could provide an annual yield of 50kg of apples, which adds up to just over an apple a day. Not enough to keep the doctor away for the whole family, but almost enough to meet an average family of

four’s 64kg per year apple habit. Plant a good range of varieties and you will be able to start with fresh apples in August and then store good ‘keepers’ like Bramleys through the winter and spring. Storage needs cool, dark, well-ventilated spaces: attics will fit the bill in the cooler months. Apple trees are good-looking, have superb blossom that will be appreciated by any bees you may also be keeping and, as other outdoor activities can go on beneath them, they need not monopolize the garden.

Deep green 2:

Seasonal, local, organic, direct, then traditionally stored

There is a rich but fading heritage of apple-growing in Britain, with thousands of varieties catalogued, in contrast to the few that regularly appear on most supermarket shelves. Thanks to the effects of agricultural policy and globalization, British apple production has declined steeply in recent years, to the extent that since 1970 we have lost two-thirds of our orchards. Britain now imports more than twice as many apples as it produces, mostly from France and then from South Africa and New Zealand, whose southern-hemisphere climates fill the fresh-apple gap. All of this apple trade carries an environmental cost and the best way to minimize it is to buy apples in season from as nearby as possible. Buying organic means that the environmental impact of apple-growing will have been greatly reduced. ‘Conventional’ (that bizarre term) apples are sprayed 14–18 times a year with 30–38 active substances, including fungicides, insecticides, herbicides and growth regulators. All of which uses plenty of energy and has the not entirely surprising result that 80 per cent of apples recently sampled had detectable pesticide

residues. If it is possible to find apples that have been stored in a more traditional manner out of season, perhaps at a farmers' market or direct from a grower, then this will give you the lowest-impact out-of-season apple.

Dark green:

Just seasonal and local

Growing organic apples on a commercial scale is not easy; and the rarity of organic Coxes attests to the fact that this favoured variety is more disease-prone than most. So now comes that great apple-shopping question: is it better to buy the organic ones from afar or the conventional ones from Britain? As with many things green, there is no black-and-white answer. If it's a choice between conventional ones from Britain that come from a modern, intensive orchard (where there is little room for biodiversity) and are sold through a food-miles-intensive supermarket, then the overseas organics are probably a better bet. If, however, the British apples are not organic but grown by a smaller-scale producer and sold direct or through a farmers' market or local greengrocer, then they probably have a lower impact than apples that had a lovely hippy start in life but then travelled 11,000 miles in a floating refrigerator.

Light green:

Commercially stored British apples in winter and spring

Now we really are getting into the detail. A long-storing British Bramley hoiked out of the fridge in June may have spent eight months in there, whereas a New Zealand

Braeburn that has been harvested in March and shipped straight to the UK will have needed only half the refrigeration. Does the shipping tip the balance in the Bramley's favour? Possibly; but what's certain is that the less time the apple has spent in refrigerated storage, the less fuel will have been expended on it. So in the winter and early spring, when our own season has finished but before the southern-hemisphere one starts, stored British apples, which have not made a long journey in less efficient mobile refrigeration, have the environmental edge.

Pale green:

Southern-hemisphere imports outside the British apple season

There is a study (see also in relation to lamb, here) that shows New Zealand apples to be wholly superior in CO_{2}-reduction terms than British apples. Its conclusions hinge on the fact that our poorer climate gives lower yields and our more chemical- and fuel-intensive growing techniques need more power: both of these conspire to make a British apple's environmental footprint exceed its Kiwi counterpart by a factor of two, even taking into account the latter's long journey. It is true that shipping, per 'tonne/kilometre', is vastly more efficient than air freight and even a great deal more efficient than road freight, which is why there is little difference in the food-miles impact between an apple from Auckland or Andalucia. However, the NZ report uses a yield figure for British apples that is half what DEFRA (Department for Environment, Food and Rural Affairs) statistics show we are currently achieving, so perhaps it should be taken with a pinch of (organic) salt. Still, the report – and others on similar subjects – illustrates that the food-miles issue is much more complex than often

characterized. There is not always a direct relation between distance and eco-devastation. So the concerned apple shopper should not feel too bad about biting into a Braeburn in the April–July period when new-season antipodean imports plug the gap in our own season.

Not even a little bit green:

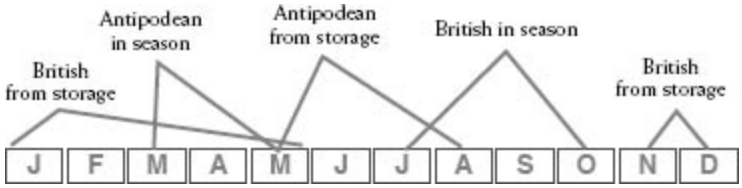
European imports during the British apple season

Golden Delicious? Never was an apple variety so inappropriately named. Intensity of flavour is often linked to nutritional value: a tasty new-season Discovery has four times the vitamin C of a bland Golden Delicious. It makes neither gastronomic nor ecological sense to eat European imports during our own apple season: British apples offer better variety, better flavour and few food miles.

More Information

Apple day: via www.commonground.org.uk

Apple season



Babies

ANY DISCUSSION OF the greenness of babies should naturally be prefaced with a population-related caveat. If you take the view of some green thinkers that humans are, as far as the Earth is concerned, a pathogenic organism that needs to be controlled, then having any children at all is a pretty un-green thing to do. Population issues apart, having children has a potentially enormous environmental impact. Just the disposable nappies used by a Western infant will create a carbon footprint bigger than that created by all the activities of a developing-world baby. In wealthy countries such as Britain, having babies is the spur for an orgy of consumption that leaves a mighty bootee-print on the planet.

Deep green:

No babies

Ultra-hardcore deep greenies put the Earth first, citing scientist James Lovelock's view that Gaia is suffering from 'disseminated primatemaia' – a plague of people that the planet will eventually shrug off, probably with climate change. To such extremists, adding to, or even maintaining, the planet's human burden is a bad idea. Such self-sacrifice for the greater ecological good may be laudable but unfortunately runs counter to most people's most powerful biological instincts.

Dark green:

The low-impact baby

Food, energy use and travel account for most of a baby's environmental impact. Food is easy to deal with: breastfeeding radically reduces the resource and energy cost of feeding a new baby (see here for detailed statistics); thereafter, a low-meat diet that avoids processed and packaged foods will keep the food 'footprint' as small as possible. Nappies are major users of resources and energy. A debate rages between environmental campaigners and multinationals about whether disposable or washable is best. The 3 billion disposable nappies chucked away each year are the biggest domestic item in British landfill sites and most take ages to biodegrade. But washable nappies have an environmental cost too, in terms of electricity and water use. Use the greenest modern washing machines (see here for details), though, and the 'footprint' of washables will be half that of disposables; use a laundry service and it will be lighter still. As for transport, dark green babies will not do a great deal of driving, or if they do it will be in the greenest possible vehicle (see here) or, preferably, on a bicycle or in a hand-me-down pram. And it goes without saying that low-impact babies will have clothes and toys that are either second-hand or made out of renewable and biodegradable materials. However, as any parent knows, even the greenest babies will soon grow up to desire the most lurid and synthetic things in the shop. Children are not natural environmentalists.

Not even a little bit green:

The baby who has everything

There is an almost infinite menu of ways to give your baby a carbon footprint bigger than that of a developing-world village. Bottle-feeding, with all the food production, packaging and transport, then heating and sterilizing it entails, uses vast amounts of energy and resources (see here). Buying highly packaged and processed baby foods is also energy-intensive and creates maximum waste. Why mash a banana when you could buy a ludicrously expensive small jar of indeterminate baby mush? Encouraging baby to have a highly carnivorous diet expands its cute little footprint ever further (see also meat, here). Disposable nappies may consume no water or energy 'in use', but their manufacture is highly resource-intensive and involves unpleasant chemicals. Naturally, the baby who has everything must be protected from the rigours of the outside world, so its parents will crank up the household thermostat and ensure that most of its travels are in the safe cocoon of a large car or, for the very shortest journeys, in the beefiest baby buggy available. And of course baby's arrival will stimulate the purchase of a huge range of absolutely essential gadgets and gizmos, from battery-powered rocking chairs to sophisticated baby alarms.

More Information

Real nappy campaign: www.realnappycampaign.com

Baby milk

YOU COULD ARGUE that there are multiple shades of green in the world of baby milk. Organic infant formula, for example, may have a marginally lighter ecological footprint than stuff derived from conventionally grown ingredients. There may be differences of environmental impact between packaging, production or the provenance of the fifty or so ingredients in the many competing formula brands. But whilst this book may be predicated on the notion that 'being green is never black and white', baby milk is one area of modern life where there are no environmental nuances.

Deep green:

Breastmilk

'If a multinational company developed a product that was a nutritionally balanced and delicious food, a wonder drug that both prevented and treated disease, cost almost nothing to produce and could be delivered in quantities controlled by the consumers' needs, the very announcement of their find would send their shares rocketing to the very top of the stock market.' This introduction to breastmilk in Gabrielle Palmer's *The Politics of Breastfeeding* neatly captures the nutritional, economic and therefore ecological issues surrounding it. Look very hard for any environmental impacts of breastmilk and you could contend that the presence of certain persistent environmental pollutants in human breastmilk might be cause for concern; or maybe that the increased calorific

requirements (and thirst) of breastfeeding mothers increases the overall human demand for food and water. But these issues are more than cancelled out by the myriad well-documented health benefits of breastmilk and the fact that it requires no energy-intensive manufacturing, packaging or transporting.

Not even a little bit green:

Formula milk

At birth, 69 per cent of babies in the UK are breastfed, but by six months – the age up to which the World Health Organization recommends babies should be fed nothing but breastmilk – this has fallen to just 21 per cent. As a result, the babies born in our country each year get through 12.75 million kilos of infant formula in their first six months, at a total cost to their parents of at least £90 million. This is big business, the environmental 'externalities' of which include 14 million or so items of metal or plastic packaging to be recycled, landfilled or burned; the fuel costs of transporting thousands of tonnes of product; and the boiling and use of 75 million litres of drinking water. Most significant of all are the impacts of the agriculture needed to create the dairy and plant-oil products that are the principal ingredients of infant formula. But the main reason formula is consigned to this category is that nearly all of these impacts are unnecessary. We largely do not need the ecological disaster that is infant formula milk because there is an infinitely superior and environmentally benign substitute. Fewer than 3 per cent of women are physiologically incapable of breastfeeding: the factors that dissuade many others from doing so today are a complex, potent mix of the cultural and economic. For example, for every £20 spent per baby by food companies marketing

infant formula milks, only 14 pence is spent promoting breastfeeding. A return to widespread breastfeeding would be good news for the planet as well as its infant human inhabitants.

More Information

The National Childbirth Trust: www.nct.org.uk
Baby Milk Action: www.babymilkaction.org

Bananas

BANANAS ARE HUGE. The most popular fruit in Britain, their sales are worth three-quarters of a billion pounds a year in this country alone. For supermarkets, they are the most valuable food item, exceeded in money-making power only by lottery tickets and fuel. Globally, they are the fourth most important staple crop and a crucial source of export income for at least fifteen Latin American and Caribbean countries: the Windward Islands, for example, are highly dependent on banana exports to Britain. With this much money at stake, there's bound to be an environmental downside. It's not all in the transport: bananas rack up plenty of food miles but at least they are delivered by sea, where pollution per tonne/kilometre is a hundred times less severe than air-freighting. With bananas, it's the cultivation that's the problem. Grow them on a large, monocultural scale, which is the tempting thing to do if you are a big company looking to maximize profits, and finicky, disease-prone banana plants need major doses of agrochemicals.

Deep green:

Fairtrade organic bananas

If the definition of 'green' in this book is all about environmental impact (see introduction, here), then banana denial should be the greenest choice on account of all the food miles, refrigeration, artificial ethylene ripening and so on. Or should it? Thanks to various unsavoury twists and turns of colonial history, several national economies are now utterly dependent on the banana trade. If we stopped

buying, what would they do? Start growing coca (see here)? Start wars? Whatever might happen, there's a strong chance it could be less green than growing bananas. It's not exactly scientific to speculate in this way, but the banana trade is an illustration of how greenness is often more complex than just looking at measurable environmental impacts. It may well be that supporting 'best-practice' banana-growing is a sound ecological investment. As with other developing-country commodities, Fairtrade guarantees a decent price for producers. And organic production, though tricky with bananas, eliminates the heavy agrochemical use and is better for biodiversity and the environment of the banana-growing regions.

Dark green:

Fairtrade or organic bananas

No need for hand-wringing at the shelves if you can't find bananas that are both Fairtrade and organic: either option is good. Fairtrade bananas are very unlikely to have been produced on a large and destructive scale. So whilst they are produced with some energy-intensive and polluting agrochemicals, it will be at a level that is likely to be much lower than for 'standard' bananas. Organic bananas may not have been fairly traded, but their production will be on a scale that is more likely to be benefiting small producers directly. Soil fertility comes from natural fertilizers, weeds are controlled manually and pests controlled with a range of non-chemical strategies. There is, however, a banana disease (Black Sigatoka) that can only be treated with increasingly heavy doses of fungicide: where this disease is present, organic banana production is impossible.

Not even a little bit green:

Any old banana

After cotton (see here) bananas are the second most sprayed crop in the world. When cultivated on large-scale plantations, they get regular doses (delivered by aeroplane or by hand) of herbicides, fungicides and insecticides to keep at bay the various maladies that can afflict the banana plant. The banana bunches themselves are often wrapped on the tree with pesticide-coated plastic bags for protection. Five of the chemicals used on bananas are classified as 'extremely hazardous' by the World Health Organization; and three organophosphate pesticides are applied that are not approved for use in the UK. On large plantations, which are mostly run by the four corporations that manage 80 per cent of world banana trade, more money is spend on agrochemicals than on workers' wages. All of this puts stresses on watercourses and on human health; and there are numerous lawsuits outstanding in relation to workers having been affected by the agrochemicals used in banana cultivation. Of samples of bananas delivered to UK schools in 2005, all contained pesticide residues at or below the maximum allowable level and two-thirds had residues of multiple agrochemicals, a threefold increase on samples tested in 2004. Any old banana is likely to have been produced by one of the large US corporations that have lobbied for a global free market in bananas: this will tip the balance in favour of the big guys and threatens small producers in fragile, banana-dependent economies such as the Windward Islands. Careless banana-purchasing could, ultimately, cost lives.

More Information

Campaign for a sustainable banana:

www.bananalink.org.uk

Barbecues

AS OUR CLIMATE warms, so the primal practice of outdoor cooking becomes more and more popular in a country whose summers seemed once too dismal. As pungent smoke engulfs your washing line on sunny weekends, it's difficult to think environmentally positive thoughts about barbecues. But it is perfectly possible to have a sustainable, carbon-neutral barbecue, although what you slap on it (see in particular meat, here, and fish, here) will have as important an impact as the fuel you use.

Deep green:

Solar stove

Without fire or smoky flavours, this is the 'no fun' outdoor cooking option. Solar stoves mainly work by using reflectors to direct the sun's heat at a dark pot, creating the perfect conditions for slow cooking. It's hard to imagine much jolly conviviality being created around a static, weird-looking contraption that needs none of the fire-management skills that so engage men in the barbecue process. On the upside, though, short of having access to your own geothermal vent, this is the most environmentally benign way of cooking bar none.

Dark green:

Using well-dried waste wood or local coppiced wood

Charcoal (see below) can be a low-impact fuel source but wood is even greener. It needs no processing, although lengthy drying (a year or more) will make for a much more efficient burn. Unlike fossil fuels, burning wood does not add to the net stock of CO_2 in the atmosphere; however it does release particulates and volatile organic compounds (VOCs), atmospheric pollutants that are good neither for health nor the neighbour's washing. Using waste wood from near to where you live minimizes the transport costs of what is, after all, a heavy fuel. However, for cooking purposes, choosing natural waste wood rather than old planks that may have been treated with preservatives is the healthiest option. If there is a sustainable source of coppiced wood nearby (maybe from your own small patch of trees) then that too will keep the barbie's footprint to a minimum.

Quite green:

Locally sourced charcoal

Charcoal has around twice the 'energy density' of wood, so provides a much more efficient heat source and burns more cleanly. However, its production, in which wood is heated in the absence of air to drive out the moisture and other volatile substances, does itself use energy. But given that 90 per cent of barbecue charcoal sold in the UK comes from overseas, often from tropical forests, much of charcoal's environmental impact comes from transportation. Buying locally is a good way to reduce your barbie's impact. Much local charcoal comes from wood that has been coppiced, a very sustainable practice that produces attractive and biodiverse woodland, and encourages local 'craft' businesses: both coppicing and

charcoal-burning are highly skilled activities that can bring employment to rural areas.

Light green:

FSC-certified charcoal

It has the fuel miles but not the sustainability issues. Charcoal that carries the Forest Stewardship Council logo will at least have come from forests that are sustainably managed rather than simply clear-cut to provide the fuel for your sausages. FSC-certified charcoal is now widely available; however, beware FSC briquettes (see below for more on briquettes): they may derive from sustainable wood but may also contain some environmental nasties.

Pale green:

Propane

Gas barbecues are not really green at all. They are burning a fossil fuel, so contributing net CO_2 to the atmosphere; and the cylinders they use have to be manufactured and trucked around, making them much less efficient than cooking on mains gas. And the swankiest models can use as much energy as an industrial space heater. The one advantage gas barbies do have is that they burn more cleanly, kicking out a hundred times less carbon monoxide than briquettes and creating much less of the particulate and VOC pollution that wood- or charcoal-burning creates.

Not particularly green:

Briquettes