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Eat me... and save the planet

You are throwing away a billion tomatoes, 1.6m bananas, 775m bread rolls, 359,000 tonnes of potatoes and £420 a year — as well as causing pollution

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There is one way in which 2015 will be like 2009. Red-top newspapers and the blogosphere will be in uproar. Thanks to the purblind, immoral bureaucracies of Brussels and Westminster, hard-working local councillors will be bankrupted by vindictive courts, the no-longer-peaceful home counties will be ripped open by mining conglomerates, and suburban families will be woken before dawn by the crowing of cockerels. "World gone mad: it's official".

The truth, as ever, will make less compelling headlines. The world went mad several decades ago, and what we'll have to suffer is the cure. Madness was in the 1990s and early noughties, when myopic local authorities were lured into penal contracts with waste companies that wanted a guaranteed long-term supply of unrecycled rubbish to burn in their incinerators. Madness was the Local Government Association wanting retailers to pay for the disposal of "waste" food packaging while councils ignored their own responsibility to collect and recycle it. Madness was the same councils sending valuable recyclable material to landfills along with millions of tonnes of uneaten food.

It will not be madness to put all this right.

So far, the nation's recycling effort has been a disconnected shambles. Left to their own devices, councils have varied so widely in their behaviour that there might as well have been no policy at all. Some ask householders to separate their rubbish into recyclable and non-recyclable. Others want as many as five, while the slob end of the spectrum keeps going with a single unsorted collection, everything mucked in together. Some collect glass; some don't. Some are equipped to handle the full range of theoretically recyclable plastics; many don't even try.

Much of the plastic and glass is so contaminated by other rubbish that it is impossible to recycle. Even when it is recycled, glass often ends up in

road aggregates, not in bottles or jars. Easy jokes have been made about the "politically correct" redesignation of waste disposal as "resource management". But this is not just another example of world-gone-mad euphemism or a public-sector job creation scheme. It is the dawning of understanding. The time is not very far away when recycled metals will be a bigger market than freshly mined ores (it's happened already with gold). The time is not very far away when glass and plastic bottles are not merely recycled but re-used, like the milk and soft-drinks bottles of old.

We will all notice the difference, and, if certain sections of the media play true to form, we will be incited to resent it. The first essential, therefore, is to kill our misconceptions. The last thing we need is the kind of worthy spasm that made people think they could save the planet with jute shopping bags. Reducing our consumption of plastic carrier bags (400 per household last year, according to Defra, the Department for Environment, Food and Rural Affairs) is useful in the sense that every little helps. Nobody likes them, and they are a persistent source of litter that can be fatal to marine wildlife when they find their way, as they often do, into the sea. In early April Defra launched a new Get a Bag Habit campaign, replete with media-friendly statistics. The 9.9 billion bags distributed in the UK in 2008, it said, were "enough to fill 188 Olympic swimming pools, and if laid end to end they would reach to the moon and back seven times".

This is all very vivid, but it doesn't do much for our sense of perspective. A South Gloucestershire District Council survey reveals that plastic accounts for only 18% of what people throw away. Break this down further, and you find that bags make up just 18% of total plastic waste, or 3.24% of what's in your wheelie bin. Compare this with clingfilm (23% of total plastics), or other non-recyclable plastics (36%), and ask yourself whether we've got our priorities right. No surprise, such earthly comparisons do not

figure in Defra's guff. They would rather gaze at the moon. For government and the supermarkets, the bag campaign has been a cheap and easy option, a populist gesture that points in the direction of conservation but spares them the cost of having to do anything more meaningful. It even makes a bit of money for shopkeepers who, in the name of the suffering planet, can now charge customers for their bags.

If we want seriously to move towards a cleaner and less wasteful world in 2015, we must sharpen our focus. This means aiming at the right targets. Over the years, a lot of good intentions have been misspent in assaults on packaging. Led astray by the philosophical corner-cutting of popular opinion-formers, people didn't understand that seemingly "excessive" shelf-packaging allowed manufacturers to cut back on transit packaging and so make overall savings. Neither, in their urge to be angry, did they take account of improvements in hygiene, bulk handling and storage, extended shelf life and reduced food waste.

Bananas are a good example. One comment heard ad infinitum from complainers is that nature has already designed the perfect package — their thick yellow skin — so extra wrapping is wasteful. What they don't mention, because nobody has told them, is that 1.6m bananas are thrown away by UK consumers every day, and many more are discarded by retailers after customers have broken up the bunches. "Foodies" may squawk, but the fact is that packing bananas in modified-atmosphere bags extends shelf life, reduces waste and cuts cost. Like it or not, the same is true for potatoes, grapes and salad leaves. Cucumbers, being 96% water, dry out so rapidly that they are unsaleable after three days if they are not wrapped. A gram and a half of plastic film keeps them going for a fortnight.

Another focus of complaint has been the export of waste paper and plastic bottles to China, regularly rolled out as proof that recycling in the UK is failing. Much depends on how you measure success. If you take carbon footprint as the indicator, the fact is that shipping paper and plastic 10,000 miles to China creates less CO₂ than sending them to landfill in the UK. This is not to say that recycling here would not be preferable, merely that exporting recyclable waste is hardly a scandal.

Reducing packaging is no longer the key argument. All but a few organic fetishists understand that paper, cardboard, glass, aluminium and plastic are essential to the logistics of delivery, storage and supply, and realise that price competition means manufacturers and retailers have a strong

incentive to minimise the cost of packaging. But even this is not as straightforward as it looks. Since 2005 the government-funded Waste & Resources Action Programme (Wrap) has signed up 37 of the UK's biggest food manufacturers and retailers to the Courtauld Commitment, a voluntary scheme designed both to cut food waste and reduce the weight of packaging. Companies claiming success include most of the aristocracy of the grocery trade — Asda, Boots, Britvic, Cadbury, Coca-Cola, the Co-op, Danone, Duchy Originals, Heinz, M&S, Mars, Morrisons, Muller, Nestlé, Northern Foods, Procter & Gamble, Sainsbury's, Somerfield, Tesco, United Biscuits, Waitrose, Young's Seafood... The cuts relate to particular products — examples include Robinsons fruit squashes, Coca-Cola, Heinz tomato ketchup and Hula Hoops — rather than total output, but they are all steps in the right direction.

Wrap's first declared target, to arrest the overall growth in packaging weight, was achieved last year, and it remains bullish about the rest. By 2010 it aims to achieve an absolute reduction in packaging waste and a 155,000-tonne cut in wasted food. But are these the right targets? Is reduced weight all that matters? If it is, we can break out a bottle of Co-op whisky (the world's first 70cl spirits bottle to duck under the 300-gram barrier) and drink to a cleaner planet. But let us not sip too soon. Packaging weight is not the only issue. What about the carbon budget? Does less packaging mean less CO₂?

Jane Bickerstaffe, director of the trade group Incpen (Industry Council for Packaging and the Environment), thinks Wrap is tilting at the wrong windmill. Manufacturers and retailers, she says, should be expected to navigate the supply chain with minimum expenditure of resources, but should decide for themselves how to achieve it. "Only they have expert knowledge of how much protection a product needs. It depends how high it's stacked, how it fits in the lorry, speed of filling, height of retail shelf, temperature, etc. That allows them to consider all the options, including the use of recycled materials rather than virgin if it does the job, even though recycled paper needs to be thicker and heavier to provide the same strength." Wrap's obsession with weight-saving, she believes, has actually discouraged recycling, and made quantity more important than quality.

The Institute for European Environmental Policy (IEEP) has warned that good-sounding modifications can have unintended consequences. A soft-drinks manufacturer conscientiously reduced the weight of its glass bottles by 20%, then found that they shattered during shipping or snapped at the neck when customers tried to twist off the caps. And

what works in one market might not work in another. Televisions, for example, are usually shipped in container-loads of 400, with an average damage rate of one per container. When Dixons exported to Scandinavia, the rate went up to four or five, and sometimes to as many as 14. The culprit, it turned out, was recycled cardboard packaging, which, being more absorbent than virgin material, was fatally weakened by Scandinavian humidity.

Others argue that recycling is the wrong priority. We need to reuse jars and bottles, not recycle them, and CO² is the bottom line. Whichever view we take, the political and social objectives converge. If we are to move towards sustainability, then conspicuous over-consumption will have to become as socially unacceptable as burglary. Ideally, we should use nothing that cannot be used again, and some ancient liberties (the right to chuck everything into the same bin, for example) will be infringed. Inevitably there will be a backlash. The same libertarians who deny climate change will also moan about Stalinist Eurodiktats, nanny states and greenwashing. Environmentalists will argue among themselves, and despite creative accountants claiming to have achieved “zero waste”, perfect solutions will remain elusive. This should not deter us from our efforts to make them less imperfect, or to make zero our target. As Andy Moore, campaign co-ordinator of the Campaign for Real Recycling (CRR), puts it, zeroism “has been useful in moving manacled thinking along”.

Above all, the disconnected muddle needs to gel into a cogent, unifying policy that co-ordinates every step from raw materials through manufacture and distribution to consumption, reuse and recycling. Only governments can do this — that is governments in the plural, because the global economy precludes local solutions. Some policy objectives — such as nationwide standardisation of waste-sorting priorities — are obvious. Others are counter-intuitive.

In 2009, for example, a company that sells you any item of electronic or electrical equipment is legally bound to take your old one in return. This means fewer fridges dumped in ditches, which sounds good, but it does nothing to deter built-in obsolescence or the wasteful demands of changing fashion. The sooner a product is got out of the way, the sooner the trade can sell you another one. Even the most expensive washing machines currently have only a three-year guarantee. The CRR’s Andy Moore argues that this needs to change. Appliances in future should be designed for longer life, with regulations tightened to enforce repairability and 10-year product guarantees. The old values of build-to-last and lifetime-of-use will have to be reasserted. Throwawayism cannot be the way of the future.

Perhaps it should not even remain the way of the past. One of the more extreme ideas, guaranteed to mobilise protesters all over the country, is to reopen old landfills and mine them for metals. “It raises horrendous environmental and planning issues,” says Arnold Black, director of the Resource Efficiency Knowledge Transfer Network, “but most of the organic stuff will have already rotted away and discharged its methane, so it probably wouldn’t smell bad.” Nobody has yet made an estimate of how much steel and aluminium lies unclaimed, or what it might be worth, but they are the kinds of numbers that would push Defra’s trip-to-the-moon gazers into Warp 5.

Regardless of whether or not these seams are ever mined, their very existence chides us. There is nothing new in the notion that muck means brass. In Victorian England, waste contractors paid parish authorities for the right to collect their rubbish. Sifters in dust yards riddled the heaps for any fragments of stuff — broken bricks, oyster shells, rags and bones, tin, leather — that could be used again or recycled into glue or dye. The residue of ash went into fertiliser or was mixed into clay for brickmaking. For them, our “world gone mad” headlines would have the simple ring of truth. All the stuff we’ve so blithely chucked away — the paper and card, steel and aluminium, the different coloured glasses and various weights of plastic — all have a value. In its most recent market trawl, Wrap found prices ranging from £18 a tonne for mixed glass to £550 for aluminium cans. Separated glass varied from £20 for green to £27 for amber and £30 for clear. Plastics ranged from £140 for mixed to £240 for food-grade polymers and £230 for film.

As the markets grow and stabilise, so all these will increase (in February alone, mixed plastic went up by £88). But what the figures make clear is that the best returns are from high-quality, clean and sorted materials that are easy to recycle. Thus Slob Borough Council, with its commingled collections in which everything is smeared with everything else, is doing more than just foul its own nest. It is costing its taxpayers money. “Source separation” by the public is essential to any scheme that is going to deliver maximum benefit, and people need to understand that the benefit is theirs. If there is anything that cries out for investment in a recession, this must be it.

Whatever we do now, we won’t be entirely clean by 2015. But at least we should have got our priorities straight. New infrastructure takes years to plan, design and build, and investors will need a strong lead from government if they are to risk their money. Andy Moore wants to see serious new investment in reprocessing, including funding for local authorities

upgrading their services, fiscal incentives for manufacturers to use secondary rather than virgin materials, and greater standardisation of packaging. By this he means limiting the number of materials.

At the moment, says Arnold Black, “fourteen industrial plastics are used in different combinations, for no better reason than that the public has got used to the look and feel of things”. Sorting and recovery would be much easier if this could be reduced. Moore suggests that no more than four might be needed in supermarkets, and that the public would quickly learn to separate them for collection. Black suggests this could be made even easier by colour coding, and that bigger savings could be achieved if we curbed our enthusiasm for transparency. “If we didn’t want to see the Coca-Cola in the bottle,” he says, “we could use opaque plastic rather than clear.” This would increase the usefulness, and hence value, of mixed plastic waste.

But there is an elephant in the room. The last resort for “residual” rubbish — the stuff that can’t be recycled — is burning in vast incinerators that generate heat and power. These are operated by companies which, by their very nature, need a guaranteed supply of mixed waste to feed the fires. Local authorities are contractually bound for up to 25 years to maintain the flow, with penalties if they fail. By 2015 these will increasingly be in conflict with tighter regulation and more efficient recycling that should drastically reduce the rubbish left for burning. Andy Moore predicts that local taxpayers faced with surcharges will want to see the authors of this folly — former councillors and officials — in court.

The other scandal, implicating us all, is food waste. Big numbers are seldom easy to visualise — hence all the Olympic swimming pools and trips to the moon — but some are so shocking that they need no embroidery. Households in the UK buy approximately 21.7m tonnes of food every year, of which a third, 6.7m tonnes, never passes their lips. Only 19% of this is genuine waste — vegetable peelings, bones, teabags and so forth. Most of the rest (4.1m tonnes) is perfectly edible. More than a quarter of it is junked while still in its wrapping. Out every year go 359,000 tonnes of potatoes, 328,000 tonnes of bread, 190,000 tonnes of apples, 161,000 tonnes of meat and fish meals. Forty-five per cent of all salads are thrown away, along with 31% of bakery goods and 26% of fruit. The litany of waste goes on and on: 200m rashers of bacon, 440m sausages, 484m yoghurts, 775m bread rolls, a billion tomatoes, 4.8 billion grapes...

Altogether, that is £10.2 billion of wasted food, or £420 per household. Even this is not the whole story. A small proportion of the waste is fed to animals or composted, but the vast bulk of it, 5.9m tonnes, goes into landfill where it generates the powerful greenhouse gas methane.

We used to be better at this kind of thing. In the years after the second world war, local authorities ran special collections for kitchen waste, which they converted profitably into pigswill. Some even had their own municipal piggeries. It can’t happen now. Pigs have not tasted swill since 2001, when it was blamed for an outbreak of foot-and-mouth. But pigs are not the only possible converters of waste into food. Back-to-the-earth romantics point to Flanders in Belgium, where the government subsidises householders’ chickens — reliable providers of eggs as well as flesh, and as omnivorous as pigs. The avian flu scare damped down enthusiasm for the idea in the UK, but who knows? When climate change puts paid to our lawns and borders, maybe a chicken run will make better sense than weeds.

The likelier destinations for leftover food are anaerobic digesters — sealed vessels in which biodegradable waste is broken down by bacteria. They produce biogas, which can either be burnt to generate heat and power or used as motor fuel; and bio-fertiliser for spreading on fields. This has the added benefit of saving the huge quantities of energy needed to make inorganic fertilisers, and hence cutting CO². Unlike subsidised chickens, it’s an idea likely to run. Alistair Darling has given Wrap an extra £10m to spend on development — enough to process about 300,000 tonnes of food waste a year. By 2015, in reality or in prospect, it should be taking the last few shreds of recoverable nourishment away from landfill and diverting them to some kind of worthwhile use.

We should be looking at ourselves differently by then. World water and food shortages and a looming energy crisis will have helped us recognise the criminality of avoidable waste.

It will no longer be thought smart, or hip, or intellectually invigorating to play Canute, and scepticism will be reserved for those few who think global warming isn’t happening. And it will no longer be good enough just to know the price of everything. We have to know its value