

# **Scotland - the best small country in the world?**

by  
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In terms of the planet's ecology, whether or not Scotland is the best small country means something very different from what the glossy brochures intend and, at one level, it means very little. In 2000,

the Chinese government said it would aim to quadruple its GDP to \$4 trillion by 2020. Since then, China's GDP has already doubled, to \$2.25 trillion. In the process, China is remaking the world we live in. Its annual population increase is eight times the population of Scotland, and that is considered a demographic success story. What I want to do in this paper is to move past marketing hype and look at the structural changes that will inevitably come, how Scotland can contribute positively, and profit from those changes, materially and, even more, socially.

China is already the second-biggest contributor of greenhouse gases and is suffering what is clearly a national ecological catastrophe. In 2005, a report in *Nature* concluded that pollution and ecological damage cost China between 7 and 20 percent of GDP in the last two decades. There are 300,000 deaths from air quality problems each year. My own favourite statistic, from a nation whose statistics seem chemically enhanced, is that CO<sub>2</sub> emissions from out-of-control underground coal fires in Shaanxi province, many the result of poor mining practices, are greater than those for all of Japan. As critics of the Stern report observed, if Britain stopped emissions of CO<sub>2</sub> overnight, the loss to Earth's atmosphere would be made up by the increase in China's in a matter of a few months.

At least China's per capita ecological footprint remains comparatively low, at 1.2ha compared to the global per capita share of 1.7ha, and Scotland's at 5.6ha. The US, also outside the Kyoto protocol, famously absorbs a quarter of the world's resources with five percent of its population. When I was born, US population hit 200m. This year I turned 40, and it hit 300m. It's quite possible I'll be alive to see it reach 400m. We now focus on China's immense population and its rapid development, but America's population growth is ecologically challenging too.

There is an immense injustice in all this, of the world's poorest paying the ecological debt of

the world's richest. But the disparity also drives future impacts. There are, in the US, 40,000 domestic flights a day. At any one time on a typical day, there are 300,000 Americans up in the air. By contrast, in India, there are just 400 domestic flights a day, in a country with more than three times the population. In Scotland, some people argue that flying is their right and the UK government is planning to allow them to do a lot more of it. Can that right be extended to more than a billion Indians, or 1.3bn Chinese, either physically or ethically? Few Indians believe that their nation should modify its growth. How can we argue that they should limit CO<sub>2</sub> emissions if we continue to allow unfettered growth in transport?

Our problem can be described in two words: 'fast' and 'heavy'. We move too much stuff, too far. On the day I write this, there will be as much world trade as there was in the whole of 1949. In roughly the same period, the number of cars in the world has leapt from 60m to 535m. You're familiar with the picture. Whether or not Scotland reduces its per capita carbon footprint will make a negligible difference to the Earth's ecology.

So what should Scotland's role be? One of the signatures of our species is that if we see a good idea, we tend to adopt it. We face big problems, and thinking people are considering solutions. If a well-educated, intellectually curious and outward-looking Scotland can imagine and execute new ways of living that are lighter and, necessarily, slower, then that lesson can inform the rest of the world, which can develop at reduced ecological cost. These changes can also make Scotland a happier place to work and bring up families, and offer it a technological edge in a new low-carbon world.

Three items of news appeared on the same day while I was working on this project. First, construction began on Europe's largest onshore wind farm, the £300m Whitelee project on Eaglesham Moor, described by Scottish Power's chief executive as "a great step forward for the UK in tackling climate change". Next, Glasgow Airport announced its plan to turn itself into a "world-class gateway", increasing annual passenger numbers from 8.8m to 24m.

Finally, the sustainable development

organisation Global Footprint Network announced that humanity's ecological bank account had moved into the red, that we had used up the resources the planet can replenish in one year, and we were now burning up our ecological capital. This was 9 October, by the way, so just under three months to go. In 1987, ecological deficit day arrived on 19 December. The message is obvious. Humanity's metabolism is speeding up and getting heavier. Scots are travelling 43% more than they were in 1986, and road traffic has increased by 19% in just ten years, while aviation has increased by 91%.

### **The Generation Game**

Scotland more than anywhere else in Europe is obsessed with how it generates its electricity, and I think that debate is obscuring the long-term purpose of sustainable development, which is to move the date of ecological deficit to something like the 2 or 3 January of the following year. It's not just how we make the juice, it's how we spend it. I think if Scotland were simply to copy Denmark or Germany's model for power generation it would be missing a trick. I'm well aware that neither LINK nor the Scottish Executive thinks that way, but my sense is that much of the Scottish public do. According to a recent report commissioned by the Energy Savings Trust, the UK is the most profligate user of energy in Europe, which at least partially explains why we have a much higher per capita ecological footprint than Germany.

The publication of Scotland's Sustainable Development Strategy 'Choosing the Future' is a big step forward in the nation's public life. I know that economic growth remains the Executive's first priority, but there is nothing necessarily wrong with economic growth. Wealth creation is broadly a morally positive force. Clearly, the philosophy behind 'Choosing the Future' now needs to be extended into the weft and warp of political life, both in Edinburgh and Westminster. Annual progress reports are a good thing, nailing down our new sustainable roof. These things take political will.

But there are some false notions out there, which we need to be bolder in talking about and tackling. First, that industrial-scale renewable schemes are somehow like a

software patch on Earth's operating system. Building wind farms doesn't permit us to fly to our holiday house in Spain; it doesn't work like that. Advertising and press releases now stress the tonnages of CO<sub>2</sub> saved as though the beginning and end of our problems are greenhouse gases. But it's how we live, particularly in terms of transport, that is the root of the problem, not how we power it.

Second, the notion that a sustainable economy loses money is an established fact in the minds of many Scots. One benefit of the Stern report is that the public now know differently. An unsustainable economy costs much more. You only have to track the history of Superfund clean-up sites in the US, particularly those involving mineral extraction, to see that modern economies continue to shell out big bucks cleaning up the mistakes of previous generations.

China's leadership recognises this. Listen to the words of Pan Yue, China's deputy environment minister, from an interview with Spiegel magazine last year: "We are using too many raw materials to sustain our growth. To produce goods worth \$10,000, for example, we need seven times more resources than Japan, nearly six times more than the United States and, perhaps most embarrassing, nearly three times more than India. Things can't, nor should they be allowed to, go on like that. China's economic miracle will end soon, because the environment can no longer keep pace."

Having been so negative about China's environment, I should add that Beijing has ordered sweeping environmental improvements, as much for the regime's own survival, given that China's people are running out of water and good soil, and are suffering gruesome rates of early cancers from chemical poisoning. And they can do it, given their success in population growth control and their earlier steps to end deforestation. China's problems now centre on local corruption and enacting their central vision.

Scotland's problems are very different. For a start, we can at least talk about them freely. Indicators show a gradual improvement in many key environmental indices here. But one idea that would travel very well is China's

decision to include the true environmental cost of development in its calculation of GDP. Burning natural capital costs economies. You can buy a sandwich toaster for £5, but you will pay more for it through taxes to fund investment in the environment. The same is true for a £25 flight to Spain, or a BMW X5. We can pay now, or we can pay later, but time and again it's proven better and cheaper to pay now.

### **Spirit of Place**

Speaking as someone who, when he travels, actually misses Scotland's mountains more than the place where he lives, my problem with Scotland's renewables programme is this. Why undermine Scotland's landscape appeal when BAA gets to build a shiny new airport? What is the point of degrading carbon-rich peat on internationally designated habitats on Lewis to add capacity to a system that isn't making the necessary changes we need to make to live sustainably? Corporations will use the regulatory framework on offer to make as much money as possible. Could the public subsidy that is persuading multi-national corporations to invest in industrialising Scotland's wild spaces be used more effectively elsewhere?

Scotland seems able to drive changes in how it generates power, but not in how to construct society to use that power most effectively, in industry for example, even though more than a fifth of Scotland's energy is wasted. Twice as many homes in Scotland lack loft insulation than in England. Domestic energy consumption has risen 15% since 1990, much of it driven by the huge increase in electrical appliances. But these problems seem to wait on Westminster, not Holyrood. Why should that be?

The Italian sustainable designer Ezio Manzini has described the problem of re-powering modern society as like changing the engines on an aircraft in mid flight. There are more than 200 wind-farm proposals in the Scottish planning system. These projects have not been chosen to meet a strategic national need but are developed by private interests to take advantage of a generous subsidy whose cost will be met by the public. I've spoken to campaigners in Scotland who say that their organisations are overwhelmed by the impact

of so many proposals, and yet we still don't have a clear idea of what Scotland's energy map will look like after all this is over. To extend Manzini's analogy, Scotland is proposing to take the engines off before figuring out how exactly to replace them or where the plane is headed.

Scotland's leaders have burned a lot of political capital to defend this situation. But if the Scottish Executive had full fiscal control, would the ecological adaptation of the tax system be further advanced? Would a more coherent national strategy for making Scotland a low-emissions economy now be in place? Would Scotland have a more imaginative transport strategy? It's an interesting question, especially if you're Alex Salmond, and one I can't answer. I do know that it will be bad for Scotland's tourism industry if the public perceive its landscape to have been degraded. The upside of that equation will need to be deeply impressive.

The truth is that Scotland's planning system isn't up to the job and new legislation won't address the deep structural problems that need solving, as third-party appeal has been refused for local interests. The Scottish Executive has produced some far-sighted pieces of legislation in the last eight years, giving democracy a real shot in the arm, but the National Planning Framework isn't one of them. Scottish access legislation many in England admire was the consequence of a few well-informed politicians thinking long-term, and the opportunism of doing something popular without threatening economic growth. We're in more treacherous waters now, and the Executive seems to be bottling under pressure from short-term Scottish business interests.

### **Multiple Choices**

'Choosing our Future' suggests that the Executive is "modernising the planning system, so as to strengthen the involvement of communities and reflect local views better." The new legislation will do precisely the opposite. This gulf between talking the talk when it comes to involving local people and what actually happens in government seems as great as ever. I came across this quotation in a SEPA newsletter recently. "There are plans to make Lewis the site of a large wind farm.

But there is intense opposition from the villages that still cling to restraint, religious observance and a disdain for worldly goods." A disdain for worldly goods? Whatever next?

The Scottish Executive has announced targets for renewable energy generation of 18% by 2010, and 40% by 2020. The University of Edinburgh report published in February shows that this is possible, for at least some of the time, given growth in offshore and marine generation, and without factoring in the growth of micro-renewables, contingent on upgrading the grid as planned. But it's worth observing that Denmark is only hitting 20%, despite a considerable head start on Scotland.

Scotland is making a great effort to develop its onshore wind energy, certainly compared to England, where New Labour will ride on Scotland's coat-tails in meeting renewables targets. But beyond electricity generation Scotland is lagging behind the rest of the UK and many parts of Europe. There is a UK strategy for micro-renewables, but it is unambitious and limited. Individual European cities are developing or have developed a cornucopia of local initiatives for generation, efficiency and waste reduction that provide a blueprint for Scottish cities to catch up. Adjusting the metabolism of cities is critical to this whole process, but attention here is transfixed by national power generation.

Slashing CO<sub>2</sub> emissions from electricity generation isn't enough. It misses key, central issues of resource depletion. It's not just that the planet is getting warmer. Oil really will run out one day, and will get much more expensive before it does. We can design a post-oil world now and achieve a higher level of energy security in the future and inoculate ourselves against the chaos that resource competition will bring. And we can choose to live – and prosper – within our means by redesigning modern life. That is obviously a better starting point than re-powering the current unsustainable model.

Take the issue of waste. The mantra on this subject is 'Reduce, Reuse, Recycle'. We know all about 'Recycle', but what happened to 'Reduce'? The planet's racing metabolism is partly the consequence of our ravenous consumption. Can't we limit that? My favourite

way of doing this is our local Freecycle site, where you basically hand over stuff you don't want anymore to someone who does via an internet bulletin board. It's a bit like eBay but free. Glasgow and Edinburgh, I'm happy to report, have the most Freecycle members outside of London and the initiative's hometown of Portland, Oregon.

I like Freecycle because it's old-fashioned common sense. If you want something more happening, then I suggest the field of sustainable design, which I notice the UK government's chief scientist Sir David King was promoting this week. The intelligent solution to unsustainable living is to design and cost the whole system, not just the bit that makes the retailer and manufacturer money, leaving us, or at least, someone else, with the rest of the economic cost. One solution is not to buy things at all, but to rent them off someone else. (This service-led approach works for cars, like the Edinburgh Car Club, or clothes. It already works for telephone answering and used to work for books.) You could make adjustments to the tax structure to make that option more attractive and reflect the true cost of buying, for example, a power drill with its attendant backpack of manufacturing, transport and packaging costs. At the very least, the tool can be designed to be recycled.

### **A WEEE Proposal**

That is the purpose of the Waste Electronic and Electrical Equipment Directive, passed in 2003 with the recommendation that governments pass enacting legislation in 2004. Only one country managed that – Cyprus. The current schedule for enacting WEEE in the UK is summer 2007, but this issue has slipped before and may do so again. It's a very different story in Japan, where industry is setting a global standard for recycling WEEE and starting to profit by it. Japan has an acute shortage of landfill sites, so in 2001 the government passed the Home Appliance Recycling Law and added the cost to the retail price. This gave manufacturers guaranteed revenue streams, allowing them to invest in recycling plants.

Critically, reduce and reuse principles were enshrined in law, along with recycling. In Japan, computer manufacturers are obliged to take back and recycle 'end-of-life' computers.

Hitachi has developed 'design for disassembly' software, and even has automated disassembly for some basic products. Developed countries that can adapt life-cycle systems in this way are going to prosper. In the 1990s, Hitachi's company slogan was: "Speed is God, Time is the Devil." Its current slogan is: "Inspire the Next".

'Choosing the Future' has some powerful aspirations in terms of energy efficiency, waste management and sustainable construction. But Scotland has a lot of catching up to do. The richest woman in the world is Zhang Yin, richer even than JK Rowling, and her business is recycling paper. Part of the reason she became so wealthy is that China's leadership didn't regard paper recycling as a priority industry and left it for the private sector. Zhang Yin built her fortune on recycling American paper and using it to package Chinese products.

Although the Bush administration has been shameful in its reluctance to lead on ecological degradation, US business is changing fast, partly because it assumes regulation will eventually come, and far-sighted individuals want to get ahead of the pack. General Electric has revenues of \$165bn and has traditionally had one of the worst environmental records of any company in the US, but CEO Jeffrey Immelt has led a complete overhaul of its product lines to improve their sustainability. Against initial opposition from his board, Immelt pushed through the project not because he's a tree-hugger, but because he wants to make more money. The company makes everything from low-wattage light bulbs to wind turbines to diesel-electric hybrid locomotive engines. GE will be spending \$1.5bn on research and development in clean technologies, which is more than ten times the Federal budget for research into wind and solar.

Immelt is clear about his motivation. He is expecting new regulation. Not only that, he sells into Europe, where Kyoto targets and the EU's commitment to the environment have raised the bar. Other corporations have followed his lead. Wal-Mart wants to be carbon neutral. Google wants to re-engineer computers, which are currently overpowered, saving trillions of kilowatt-hours. Industry expects consumers will make higher

environmental demands and are figuring out how to make money from that. It's another way for them to compete. Business is also planning for hefty energy cost rises.

### **Greening the economy**

In Scotland, the Executive published its green jobs strategy last year, much of it focusing on energy and the growth of recycling and recyclates in sectors like construction. On the evidence of this report, the Executive is ahead of business in Scotland, thinking imaginatively about the future. In the past, politicians have attempted to staunch the fresh wounds of manufacturing job losses by bending over backwards to accommodate foreign investment in sectors like electronics. But these jobs are like water, flowing to the lowest common denominator in terms of tax regimes and employee costs.

A sustainably-designed service economy will prove more long-term in its job creation. At the moment, cheap, throwaway goods are financed by low-cost labour and comparatively cheap fuel. When that fuel becomes more expensive than carbon-based life forms, people, will take over, doing what they did in the centuries before oil – fixing things, building to last, investing more emotion in fewer objects, treasuring items for generations rather than getting bored with them in weeks. We want to do this, I believe. It's natural.

But it's government's role to establish a regulatory framework with the right ecological outcomes. Scotland is developing intellectual capital in renewable energy and it's the job of the Executive to nurture that expertise. The PURE project on Shetland, for example, is a working model producing hydrogen from a renewable source. Around the world, people are trying to figure out how to produce hydrogen cheaply and cleanly. Solar energy and photobiology are two potential sources, but Scotland has a genuine chance to profit from its brains when and if the hydrogen economy moves forward.

Denmark's wind industry has been punished by needing to dump cheap electricity at periods of low demand, mostly to the advantage of Norway's hydro sector. One solution in Scotland might be to avoid this inefficiency by powering hydrogen production. The new

Hydrogen Energy Group Report has some shrewd recommendations for the Executive, including a Scotland-wide university research centre. Marine energy is another area of expertise that is ripe for exploitation in Scotland, along with biomass, which people forget supplies a large proportion of Denmark's sustainable energy, usually in municipal CHP units. Biomass has landscape implications too, but must be considered.

Scotland's more isolated communities are both fiercely independent and looking to redefine themselves in a modern context. Medium-sized renewable-hydrogen projects could liberate island communities from expensive onshore energy infrastructures. Denmark has something like 40% of the global market for turbines because it developed its industry early. Scotland must do the same with technologies developed here.

### **Green job creation**

Here's another example of potential job creation in a sustainable future. There has been progress in tackling fuel poverty and issues like dampness in Scotland, but most housing here doesn't meet the new Housing Quality Standard. Retro-fitting old houses to meet energy-efficiency standards is going to create a lot of jobs, especially when oil hits \$200 a barrel and micro-renewables become an economic inevitability.

Micro-renewables have attracted criticism lately, even from within the environmental movement. But several of these technologies are already more than technically viable – they are proven money savers, as well as CO<sub>2</sub>-savers. Hot-water solar systems really do work, even in Scotland. Ground-source heat pumps can make a significant saving. B&Q's wind turbine may not convince, but there are micro-wind technologies in development that could make a powerful contribution. But the cost structure in Scotland doesn't offer micro-producers the same advantages found elsewhere in Europe, particularly Germany. Achieve any kind of meaningful market penetration with these technologies and the benefits will be huge. And again, micro-renewables can provide a new source of local service jobs.

New house building is finally under scrutiny in

Scotland, although it's worth emphasising that where you put that house is more important. Put it in a dormitory town, and the carbon costs of commuting negate energy savings from proper construction. Repopulating the Highlands is a nice idea, but not if it adds commuter miles. To drive out once for the weekend is preferable to driving in five times during the week.

Scotland has a long way to go in re-imagining its transport systems. I got very excited when I read that one of the Mercedes hydrogen fuel cell buses was being tested in Perth, before I realised it was Perth in Western Australia. Ken Livingstone is covering himself in transport glory just now, making motorists pay, reducing public transport emissions and squaring up to air traffic growth – and still being electable. Someone in Edinburgh or Glasgow could do the same, but transport authorities in Scotland are looking in the rear-view mirror.

'Strategic development' in Scottish transport terms still translates as 'build something big', like the £.5bn publicly funded rail link to Edinburgh Airport based on passenger growth estimates that are already under considerable danger of not being realised. But, and I quote, 'for Scotland to compete successfully on the world stage', it needs the link.

Maybe Glasgow City Council feels that the similarly priced M74, pushed through despite the conclusion of a public enquiry that it should be cancelled, will also keep Scotland on the world stage. I doubt, however, that the appearance of another new motorway degrading a city environment will make headlines around the world. How can you take statements from the Executive on climate change seriously, when the big money is still going to airports and motorways?

Compare Glasgow's passion for flyovers to the decision in 2002 by the mayor of Seoul, Lee Myung Bak, to tear down a similar freeway and reinstate the river that predated it, creating a 1,000 acre linear park in the heart of the city. That was bitterly opposed by the Korean equivalent of the Road Haulage Association, and even by city planners, but people love it, biodiversity is up, more citizens catch buses to work, real estate value have risen and the guy who pushed it through is

running for president. Other East Asian megacities are planning to copy the idea. Now that is cultural confidence, the kind of thing people might like to see on stage in Scotland.

### **Waste in our time**

At least there's been some progress with recycling. Scotland's recycling rate hovers just below England's at around 24.4 %, (33% in Argyll and a miserable 14% in Glasgow), but the UK as a whole sends more than any other country in Europe to landfill with the exception of Greece. You have to admire politicians who set a bar so low that you can trip over it, and then hail your success as, and I'm quoting Ben Bradshaw here, "a terrific achievement". People are more than ready to recycle. I phoned like-minded folk in different cities for this project where there weren't kerbside collections and they all said the same thing; recycling facilities are constantly full. Government is not keeping up with the public.

Zero waste as a concept in running in a city has been around for a long time. Canberra, comparable in size to Aberdeen and Dundee combined, committed to making itself a zero waste town in 1996. In 2002 the New Zealand government committed to putting the whole country on the zero waste path. In 2004 Doncaster, in the People's Republic of South Yorkshire, did the same, becoming the first British authority to make this promise. Across the developed world city authorities are making deep cuts in waste sent to landfill. No Scottish city has done the same, let alone the country as a whole.

Of course, 75% of waste is created by businesses. Last May, the Environment Agency and the Waste and Resources Action Programme announced 10 waste protocols to recycle industrial waste that could save the UK £2bn. 'Choosing the Future' talks a lot about consultation on industrial waste, but that consultation has to produce results.

Another powerful tool available to the Executive is public procurement. In the EU, public authorities spend an estimated 16% of GDP, around €1500bn each year. The public sector in Europe buys 2.8m computers a year. If they were energy efficient, the savings in carbon emissions could be as high as 830,000 tonnes. In Stockholm, local authorities have

promised public transport will be fossil fuel free by 2020 and have already changed 18,000 traffic control posts to LED bulbs, with energy savings of 90%. Heat pump procurement in Sweden drove down the price of such systems by 30%, and made them 30% more efficient; improvements, which can be handed on to private consumers. Green procurement networks, like the highly evolved model in Japan, promote the development of sustainable products and energy supplies, creating markets.

In Scotland, where public procurement tops £8bn in an £80bn economy, there is a lot of ground to make up. Only around 20% of public tenders stipulate pro-environmental requirements, whereas in Scandinavia the figure is above 50%. The Local Government in Scotland Act (2003) demands best value in procurement but "in a way which contributes to achieving sustainable development". Going for Green Growth also talks about this issue, but mentions a section on a website, not statutory requirements.

So far the law is pretty toothless. Among the examples of green procurement I looked at, the conclusion of a report from the NHS Purchasing and Supply Agency said that in greening procurement, mandatory targets and management commitment are essential. The Chancellor may hold the purse strings, but targets and commitment are something Scotland's politicians can deliver, when the Scottish Sustainable Procurement Action Plan is published. Thanks to rule changes in procurement earlier this year, businesses can challenge the award of public contracts on the basis of competition. A similar instrument could apply with sustainability.

### **Patrick Geddes**

I want to use the remaining time available to me to talk about the complex interactions between society and the environment. We're not so very far from Ballater and the birthplace of Patrick Geddes and of course he spent his childhood in Perth: 'Everything I have done has been biocentric;' he said towards the end of his life, 'for and in terms of life, both individual and collective; whereas all the machinery of the state, public instruction, finance and industry ignore life, when indeed it does not destroy it.'



There's not much wrong with a country that can produce men like Geddes, who seems so alive and relevant and yet corresponded with Darwin. His name may not be familiar with the general public, but his intellectual heritage is very much alive through Lewis Mumford and on to thinkers like Amory Lovins, one of the most gifted advocates of energy efficiency and decentralised power, and the author of *Natural Capitalism*.

'We are human in good part because of the particular way we affiliate with other organisms. They are the matrix in which the human mind originated and is permanently rooted, and they offer the challenge and freedom innately sought.' That's not Geddes, it's the evolutionary biologist Edward O. Wilson, but both men feel viscerally the link between a healthy society and nature. John Ruskin said: 'There is no wealth but life.' Geddes said that there is no life – or wealth – without leaves on the trees.

Of course, planners around the country know and act on this. Scotland has the Greenspace initiative, whose aims seem to encapsulate these ideas. But the total budget for its 50 projects totals only £4m, with the Executive providing just £1m of that. Not far from my home in Sheffield, one of the most deprived neighbourhoods in the city, the Manor, has had its park transformed from a derelict wasteland of burned-out cars to a natural oasis that is having a demonstrably beneficial impact socially. The project cost £2.5m with funding from a range of agencies and planning gain. As Richard Caborn, the UK sports minister, said at a meeting I attended recently, it costs £100,000 a year to keep someone in a young offenders facility. An ASBO comes in at £5,000. The financial penalties for social failure are high, and the natural environment is one aspect that authorities consistently underestimate in tackling that.

Scotland has set itself challenging targets for its natural future, particularly the reversal of biodiversity loss through the integration of effective management systems. Scottish Biodiversity Forum's development of indicators, particularly biodiversity engagement indicators, will be a powerful tool. But reading the section



on natural heritage in 'Choosing the Future', despite references to well being, I was left with the impression that Geddes' vision, of biology and society being interdependent, is still some way from being properly understood and assimilated by the Scottish Executive.

Let's be clear about this. Biodiversity isn't some well-meaning, middle-class, cream on the national cake, the kind of stuff to put in the glossy brochures I mentioned earlier. It is a critical structural social issue. It is also the best indicator available to us that our economy is sustainable, because if biodiversity is maintained, then the 'matrix' is functioning well. If politicians want to claim sustainable credentials, then biodiversity is the acid test. In the last few weeks, I'm sure we've all had to rub our eyes watching the news, as politicians have queued

up to talk seriously about the environment. But imagine Jack McConnell giving a press conference welcoming the latest improved biodiversity indicators alongside modest economic growth, and him acknowledging that as a good thing.

The correlation between environmental degradation, and here I'm talking about pollutants, air quality, noise and so on, and socio-economic disadvantage is well established. There's a reason rich people move to the country. We also understand very well that poverty can mean poor diet and poor exercise regimes, and the attendant psychological stresses those problems can engender. Just as dealing with energy efficiency can have positive gains for those suffering fuel poverty, just as tackling poor diet and exercise can benefit low-income families, attending to biodiversity should benefit all of society.

I've pulled a sneaky journalist's trick on some Scottish local authorities by doing a fast and dirty scan of their interest in sustainability. I punched in three terms into the search engines on websites for Glasgow, Edinburgh, Aberdeen, Dundee and Highland Councils. Those terms were biodiversity, Local Agenda 21 and green networks. You can make your own mental adjustments for population.

- **Glasgow**, which is no longer miles better but has a vision statement to make itself 'a modern, multi-cultural, metropolitan city of opportunity, achievement, culture and sporting excellence where citizens and businesses thrive and visitors are always welcomed,' managed 112 hits for biodiversity, 16 on Local Agenda 21 and an impressive 31 for green networks.
- **Edinburgh**, 'an inspiring capital' with an uninspiring website that didn't work too well, got 21 hits for biodiversity, 0 on Local Agenda 21 and 21 on green networks.
- **Aberdeen**, with a vision statement slightly more cautious and defensive than Glasgow's, got 98 hits for biodiversity, a whopping 47 on Local Agenda 21 and 25 for green networks.
- **Dundee**, Changing for the Future, got 32 biodiversities, 3 green networks and 189 Local Agendas.
- **Highland Council** manages 23 biodiversities, 7 local agendas and 0 green networks, although given the terrain, maybe the latter doesn't apply.

I don't know how much that tells us about councils' commitment to sustainability, but how local communities function is right at the core of sustainable living. The recent Institute for Public Policy Research study, which put Scotland's youth among the front-runners in drug taking, drinking, violence and promiscuity, suggested that a break-down in family and community life was responsible.

It's no coincidence that the Slow Food movement, which is now more than 20 years old, began in Italy, where almost all families still eat together frequently. Italy has its problems – the mafia, a predilection for extreme rightwing politics – but Italian city centres are not no-go areas on a Friday night. Improving how we eat, how we recreate and the natural fabric of the cities we live in, these are not middle-class aspirations. They are about giving everyone the best possible chance to be happy, fulfilled and engaged.

### Scotland's Burger Kings

One of the first things the Scottish Executive did when power was devolved was to adopt a series of 71 recommendations drawn up under the 1996 Scottish Diet Action Plan. Very few of those recommendations have been met, and in some areas the situation is worse. One in three Scottish children moving from primary to secondary education is now overweight. It's ironic, in an era obsessed with child safety, that we've ended up overfeeding them and making it harder for them to experience and enjoy the wider environment. Materially richer certainly, but not their lives.

One of the phrases I looked for in vain in 'Choosing the Future' was 'human nature'. Human beings are highly adaptable, of course, but some environments make us happier than others. Advertisers like to make us think we're special and need pampering; that we deserve 'me-time'. My personal belief is that we're not as complicated as we like to think, but that our interactions with each other are. The current focus on the rights of the individual is detracting from the truth that humans are social animals. Social networks are critical to our psychological wellbeing and these are being interrupted and undermined by consumerism. A throwaway society doesn't just discard stuff; it discards people.

You know, Voltaire wasn't joking when he said: 'We look to Scotland for all our ideas of civilisation.' The Scottish Enlightenment really did change the world. The difficulty humanity faces now is not just that we are coming up against the limits of the Earth's resources; we may also be coming up against the limits of our human natures. The ability to imagine alternatives and the necessary systems to make those alternatives work offer us an alternative to environmental disaster. We need brains, and we need determination, and those are qualities Scotland has always been rather good at.



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**Note**

*This report was commissioned by Scottish Environment LINK for its 2006 Congress but does not necessarily reflect its policy, views or position.*

