BIOTHINKING

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How to Become 80% Sustainable in One Day!

I was applying some thought to the environmental impacts of a typical household again. The conclusions are a little startling:

- Avoid public transport
- Keep lights and heating on all day and night if you fe el like it
- Drive as much as you want
- Eat well and cheaply

It's also incredibly easy to achieve 80% sustainability -- it took me one day to implement my plan, and it cost me nothing.

The basis for my plan was derived from another look at my spreadshee t model which tracks consumption -- I found that by mass, a typical household consumes materials in these ratios:

- Fuel 40%
- Food 40%
- Everything else 20%

Do your own sums and I'm sure you'll come to roughly the same numbers. What this means is that if you could sort out fuel and food, you could be 80% sustainable. We really should not let the other 20% of stuff distract us -- things like plastic shopping bags (0.1% of annual mass consumption), nappies (0.4%), and so on.

So focusing on the fuel and foo d, it's not so much about using less (we all have to eat and keep warm), but about changing the TYPE of food and fuel we consume -- making it 100% cyclic, solar and safe.

Fuel

If all my fuel is from solar sources, then I can use as much as I want -- or as I can afford --- although on a finite planet, there is only so much energy to go around, so being efficient will always be a good strategy ...

About a third of my fuel use is for heating and lighting my house. So all I do is sign up to a 'green electron' supplier. The best deal in the UK at the moment is RSPB Energy by Southern&Scottish Electric. A 5 minute phone call was all i t took. Now all my electricity is from Scottish hydroelectric sources, a solar supply, and I pay the same as I did before. I used to feel bad about having no gas in my tower block apartment as gas is rather efficient, but now I'm glad as I can be 100% sola r in one fell swoop.

Another third of my fuel use is jet fuel. Yes, that's a surprising one. As there is currently no solar-powered air travel, I have to eliminate flight entirely which I do by holidaying in the UK.

The final third of my fuel use is transport -- car and train and bus. Train and bus have to go because they are all fossil-driven, however efficient they may claim to be. Now all I need to do is make my car solar-powered.

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There are three options:

1. Get an electric car and charge it at home with your new hydroelectric power supply. While amazingly cheap to run, selling my car and buying an electric one is a hassle and I'm not keen on the toxicity implied by the big batt eries the car will have, although there are now many practical and available EVs.

2. Get a funky new CityCat car that is powered by compressed air. (300 litres at 300 bar, 4 hour refill using inbuilt electric compressor on my household mains connection, 3 minutes at a service station air pump -- see http://www.mdi.lu/eng/vehicules/). Much better idea than using batteries, but still involves too much hassle for this exercise (selling my present car and buying a new CityCat)

3. Use my existing turbodiesel car and run it on biodiesel. Yes! This is simple, just fill up from a different pump. Works with any turbodiesel car, no modific ations required. Cheaper fuel as well. 100% solar grown from rapeseed. This is the only fictional part of my story, as I would n eed to be living in France or Germany to do this. However, the point is I could be 100% solar with no fuss or hassle. In the UK, I could also purchase 100% RME in bulk a tonne at a time and keep it in a suitably-bunded container in my garden. See also http://www.biodieselfillingstations.co.uk for details of the 110 filling stations around the UK which sell 5% RME. If I want to make a minor modifcation to my car, I could run vegetable oil, which requires less processing to make than biodiesel.

Food

To get the 40% figure I have naturally included the mass of the fuel needed to grow, process, chill, distribute and retail food, as well as packaging, too.

So it's just a question of buying food that is 100% cyclic, solar and safe. Unfortunately I am unlikely to find food that is 'solar made' in the shops (see BioThinker #70). However I can buy low embergy food and also make a sign ificant improvement in food performance by being vegetarian. I just have to buy food that is 1. Local and 2. Organic. This means local non-organic in preference to overseas organic. Farmers markets are best for avoiding food miles, but supermarkets will do if necessary. I could also look at the ultimate -- growing my own -- but that is too much hassle for this exercise.

So that's it! I have become 80% sustainable in one day by:

- Making a quick call to switch my electricity supplier
- Changing my holiday plans
- Filling up the car from a different pump
- Revising my shopping list

Is it really is that easy? I have skated over man y issues, but the essence of this approach has a lot of common sense. Let me know how you get on!

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