

# **the Guardian's Green list**

**(in association with Forum for the Future)**

# contents

<b>1 FTSE 100 emissions by company</b>	<b>3</b>
<b>2 Gas Guzzlers - Dr Sally Uren</b>	<b>6</b>
<b>3 No excuses for inaction - Peter Madden</b>	<b>8</b>

Following on from the success of The 2006 Giving List, we've been working with The Guardian again this year to bring you The Green List.

Published on 5th November, the 32 page supplement lists the carbon emissions of the FTSE 100 and includes features, analysis and comment from some of the leading commentators and journalists in the area of business and sustainability.

Forum for the Future assisted The Guardian in pulling together the FTSE100 list, and researched the list for the 10 largest companies in the world. We also supplied two articles in the supplement.

This paper captures the final figures, gives information on how they were sourced, and reproduces the articles by Peter Madden and Sally Uren.

Forum for the Future - the sustainable development charity - works in partnership with leading organisations in business and the public sector. Our vision is of business and communities thriving in a future that is environmentally sustainable and socially just. We believe that a sustainable future can be achieved, that it is the only way business and communities will prosper, but that we need bold action now to make it happen. We play our part by inspiring and challenging organisations with positive visions of a sustainable future; finding innovative, practical ways to help realise those visions; training leaders to bring about change; and sharing success through our communications.

**Project Team:**

Dr James Taplin  
Ben Wood

**[www.forumforthefuture.org.uk](http://www.forumforthefuture.org.uk)**

Registered charity number: 1040519

Registered office: Overseas House,  
19-23 Ironmonger Row, London, EC1V 3QN

Designed by Ideas

## The FTSE 100 emissions by company

Company	Direct emissions (m tonnes)	Indirect emissions (m tonnes)	Total (or global <sup>a</sup> ) (m tonnes)	This represents: Pine trees (1,000s)	Approx annual emissions of	Cost: on EU market £m <sup>f</sup>	As % of pre tax profit <sup>b</sup>	Social cost £m <sup>c</sup>	Published CO <sub>2</sub> reduction policy?
<b>Companies that reported figures according to the internationally recognised greenhouse gas protocol</b>									
Anglo American	20.10	16.30	36.40	218,400	Slovakia	862.68	9.02	2,548.00	yes
AstraZeneca	0.30	0.29	0.59	3,540	Greenland	13.91	0.16	41.09	yes
Aviva	0.03	0.04	0.07	420	Montserrat	1.66	0.05	4.90	***
Barclays	0.04	0.37	0.41	2,460	Antigua & Barbuda	9.64	0.14	28.47	yes
BG Group	6.03	0.01	6.04	36,240	El Salvador	143.19	4.36	422.94	
BHP Billiton	23.20	28.60	51.80	310,800	Singapore	1,227.66	8.67	3,626.00	
BP	59.30	10.10	69.40	416,400	Austria	1,644.78	4.75	4,858.00	
BAT	0.36	0.38	0.74	4,440	Maldives	17.59	0.64	51.96	yes
British Land	<0.01	0.02	0.02	120	St Helena	0.53	0.04	1.58	
BT	0.25	0.47	0.72	4,320	Maldives	17.09	0.69	50.46	yes
Diageo	0.51	0.24	0.75	4,500	Eritrea	17.74	0.83	52.41	
GlaxoSmithKline	1.06	1.11	2.17	13,020	Mozambique	51.53	0.66	152.19	yes
Hanson	3.00	1.00	4.00	24,000	Nicaragua	94.80	19.72	280.00	
HBOS		0.04	0.04	240	Falkland Islands	1.01	0.02	2.97	yes
ICI	0.83	0.83	1.66	9,960	Guadeloupe	39.36	11.09	116.24	yes
Imperial Tobacco	0.05	0.07	0.12	720	Tonga	2.91	0.25	8.61	yes
International Power	61.21		61.21	367,260	Chile	1,450.59	232.47	4,284.45	
Pearson	0.03	0.09	0.12	720	Tonga	2.80	0.60	8.26	
RBS	0.10	0.39	0.49	2,940	Liberia	11.52	0.13	34.02	yes
Reckitt Benckiser	0.13	0.15	0.28	1,680	Cape Verde	6.63	0.76	19.58	
Reed Elsevier	0.02	0.07	0.09	540	Sao Tome & Principe	2.07	0.29	6.12	yes
Resolution	<0.01	<0.01	0.01	60	St Helena	0.24	0.05	0.72	
Rio Tinto	15.00	13.00	28.00	168,000	Ecuador	663.60	6.48	1,960.00	yes
Rolls Royce	0.26	0.33	0.59	3,540	Greenland	14.13	1.02	41.72	yes
Royal Sun Alliance			0.05	252	Falkland Islands	1.18	0.18	3.49	yes
Sab Miller	1.33	0.75	2.08	12,480	DR Congo	49.23	1.76	145.40	
Sainsbury	0.79	0.79	1.58	9,480	Guyana	37.41	7.84	110.50	yes
Scottish & Newcastle	0.18	0.14	0.32	1,920	Cayman Is	7.68	3.46	22.68	yes
Tesco	4.00	2.28	6.28	37,680	El Salvador	148.85	5.61	439.64	yes
Unilever	1.58	1.71	3.29	19,740	Mauritius	78.04	1.62	230.50	yes
WPP Group	<0.01	0.14	0.14	900	Samoa	3.42	0.50	10.10	yes
Xstrata	8.75	7.17	15.92	95,520	Slovenia	377.30	9.64	1,114.40	yes
Yell Group	<0.01	<0.01	<0.01	60	St Helena	0.09	0.04	0.27	

Company	Direct emissions (m tonnes)	Indirect emissions (m tonnes)	Total (or global <sup>a</sup> ) (m tonnes)	This represents: Pine trees (1,000s)	Approx annual emissions of	Cost: on EU market £m <sup>f</sup>	As % of pre tax profit <sup>b</sup>	Social cost £m <sup>c</sup>	Published CO <sub>2</sub> reduction policy?
<b>Companies that reported using other methods of calculation</b>									
Assoc British Foods	1.64	0.83	2.47	14,820	Namibia	58.56	13.98	172.95	
British Airways	16.66	0.08	16.74	100,400	Bahrain	396.84	64.95	1,172.09	
British Energy Group	7.71	0.05	7.76	46,560	Republic of Moldova	183.88	23.10	543.11	
BskyB	0.02	<0.01	0.02	120	St Helena	0.57	0.08	1.68	yes
Cadbury Schweppes	0.46	0.55	1.01	6,060	French Guiana	23.92	3.24	70.66	yes
Carnival	9.10	0.00	9.10	54,600	Brunei	213.43	28.73	630.38	yes
Compass Group			0.61	0	Niue	14.46	3.87	42.7	
Experian	0.01	0.03	0.04	240	Falkland Is	0.95	0.24	2.80	yes
Friends Provident		<0.01	<0.01	60	St Helena	0.07	0.01	0.21	yes
Hammerson	<0.01	0.03	0.04	180	Cook Is	0.87	0.11	2.57	
Home Retail Group	0.14	0.11	0.25	1,500	Central African Rep	5.88	1.98	17.36	
HSBC Holdings			0.63	0	Niue	15.03	0.07	44.38	yes
Icap	<0.01	<0.01	<0.01	60	St Helena	0.14	0.07	0.43	
ITV	0.04	0.04		240	Falkland Is	0.88	0.31	2.61	
Johnson Matthey	0.25	0.22	0.47	2,820	Liberia	10.89	4.81	32.18	
Kingfisher	0.11	0.34	0.45	2,700	Liberia	10.74	2.38	31.73	yes
Land Securities	0.08	0.16	0.24	1,440	Palau	5.67	0.30	16.74	yes
Lloyds TSB			0.19	0	Niue	4.99	0.11	13.26	yes
Man Group	<0.01	<0.01	0.01	60	St Helena	0.24	29.48	0.7	yes
Marks & Spencer	0.07	0.21	0.28	1,680	Cape Verde	6.59	0.70	19.46	yes
Mitchells & Butlers	0.18	0.09	0.27	1,620	Guinea-Bissau	6.20	2.82	18.31	
National Grid	4.00		4.00	24,000	Nicaragua	94.80	22.84	280.00	yes
Northern Rock	<0.01	<0.01		60	St Helena	0.60	0.01	0.18	
Prudential	0.10		0.10	600	Dominica	2.30	0.11	6.78	<sup>d</sup>
Rexam			<sup>e</sup>	n/a	n/a	n/a	n/a	n/a	
Royal Dutch Shell	98.00		98.00	588,000	Vietnam	2,322.60	5.20	6,860.00	yes
Schroders	<0.01		<0.01	60	St Helena	0.01	>0.01	0.02	
Scottish & Southern En	25.88	0.02	25.90	155,400	Cuba	613.75	54.22	1,812.77	yes
Segro	0.04	<0.01	0.04	240	Falkland Is	1.02	0.15	3.01	
Severn Trent	0.08	0.43	0.51	3,060	Cambodia	12.07	4.03	35.65	
Shire Pharmaceutical			0.02	0	Niue	0.57	0.44	1.70	yes
Standard Chartered	<0.01	0.09	0.09	540	Sao Tome & Principe	2.05	0.06	6.06	yes
Standard Life	<0.01	>0.01	0.02	60	St Helena	0.38	0.05	1.13	yes
United Utilities	1.47	0.53	2.00	12,000	Bahamas	47.42	7.02	140.07	yes
Vodafone	0.12	1.23	1.35	8,100	Guinea	32.01	2.05	94.50	yes

Company	Published CO <sub>2</sub> reduction policy?
<b>Companies that reported in confidence (no figures published)</b>	
3i Group	
Alliance & Leicester	yes
BAE Systems	
Capita Group	
Centrica	
Drax Group	
Enterprise Inns	
Legal & General	yes
Next	
Morrison Supermarkets	yes
Old Mutual	
Persimmon	
Punch Taverns	
Reuters Group	
Smiths Group	
Tate & Lyle	yes
Whitbread	
Wolseley	
<b>Companies that reported some information but didn't include some or all figures</b>	
Cable & Wireless	yes
Lonmin	yes
Sage Group	
<b>Companies that didn't report</b>	
Antofagasta	
Barrett Developments	
DM&GT	
DSG International	
Intercontinental Hotels	
Invesco	
Kazakhmys	
Kelda	yes
Liberty International	yes
Smith & Nephew	
Vedanta Resources	

#### Notes

- a Some companies only report global figures
- b Or equivalent appropriate measure of revenue. Latest published figures.
- c Social costs are the costs that society incurs as a direct result of the impacts that carbon dioxide has upon our way of life. These include, but are not limited to, costs to human health, homes, food supplies and infrastructure. The Guardian has used a conservative estimate for social costs of £70/tonne of Carbon as suggested in the 2002 Government economic service working paper (no. 140) to HM Treasury & DEFRA by Clarkson & Deyes "Estimating the Social Cost of Carbon Emissions"
- d Not for the entire group
- e Rexam reported emissions of 2.77 tonnes of CO<sub>2</sub>e per tonne of production
- f Based on a cost of 35 Euros/tonne CO<sub>2</sub> - the average price of a tonne traded during the next round of the EU ETS (estimated by Deutsche Bank).



# Gas Guzzlers

## Half of the 10 global giants still don't get it. Sally Uren reports.

Six of the 10 largest companies on the globe come from one of the oldest, and historically, most carbon-intensive sectors in business: oil and gas. Between them, the oil majors shown in our table account for 91% of the total emissions of CO<sub>2</sub> for the top ten. That says a lot about the scale of the challenge we face in moving to a low-carbon world.

ExxonMobil takes the dubious prize for the highest emissions, responsible for 146m tonnes of carbon dioxide per annum, equivalent to the annual emissions of the United Arab Emirates. ExxonMobil is also the worst offender when it comes to total emissions relative to sales, a staggering 436 tonnes per \$m. By contrast, BP is nearly twice as efficient in its operations, emitting 261 tonnes of carbon dioxide per \$m sales.

Three of the remaining top 10 companies come from the car-manufacturing sector. General Motors has the highest emissions at 12m tonnes per annum. DaimlerChrysler and Toyota both emit a modest 7m tonnes each. In relative terms DaimlerChrysler is slightly more efficient, emitting 35 tonnes of carbon dioxide per \$m sales, compared to 36 for Toyota. Could this be a sign that others in the car-manufacturing sector are following Toyota's well-documented lead in tackling climate change and sustainability?

Between them, the top 10 companies emit the same amount of carbon dioxide per annum as the entire UK.

This is a significant amount of carbon dioxide, and in the case of four of the top 10 companies - Exxon, Chevron, Toyota and ConocoPhillips - individual emissions are heading in the wrong direction, with overall greenhouse gas emissions increasing between 2005 and 2006.

This is at a time when scientists, politicians and economists have reached consensus that we need a serious reduction in global carbon emissions, and we need it now.

As ever, these figures come with the usual health warnings. First, it is reported voluntarily, which makes it possible for different companies to measure and report their carbon dioxide emissions in different ways. Second, the data only includes carbon dioxide emissions up to the point of sale. None of the emissions resulting

### The 10 largest companies in the world

Company	Annual Sales (\$ Billion) <sup>a</sup>	Annual CO <sub>2</sub> emissions (m tonnes)	Tonnes CO <sub>2</sub> /\$ Million Sales <sup>h</sup>	No. Pine Trees Needed to Sequester this CO <sub>2</sub> over 25 years (million) <sup>i</sup>	Investment in Sustainable Technologies as a % of capital expenditure?	Targets to: reduce CO <sub>2</sub> emissions <sup>j</sup>	Annual ** emissions of this company are approx equivalent to annual emissions of	Overall GHG Increase/ decrease between 2005-2006
Wal-Mart Stores	349	19 <sup>b</sup>	55	115	3.1	20% over next 7 Years	Estonia	↓
ExxonMobil	335	146 <sup>c</sup>	436	876	Not publicly available <sup>n</sup>	None published <sup>k</sup>	United Arab Emirates	↑
Royal Dutch Shell	319	98 <sup>d</sup>	307	588	1.1	Committed to keeping GHG emissions 5% below 1990 levels	Viet Nam	↓
BP	266	69 <sup>e</sup>	261	416	6.2	15% reduction in CO <sub>2</sub> emissions by 2011	Syrian Arab Republic	↓
General Motors	207	12 <sup>f</sup>	56	70	Not publicly available <sup>n</sup>	8% reduction in CO <sub>2</sub> emissions by 2010	Guatemala	↓
DaimlerChrysler	200	7 <sup>g</sup>	35	42	Not publicly available <sup>n</sup>	10% reduction in CO <sub>2</sub> emissions in production between 2002-2012	Bolivia	↓
Chevron	195	61 <sup>e</sup>	312	366	3.6	Committed to not exceeding 2004 CO <sub>2</sub> emission levels	Chile	↑
Toyota Motor	179	7 <sup>e</sup>	36	39	13.8	20% reduction in CO <sub>2</sub> emissions by 2010	Ethiopia	↑
Total	175	58 <sup>e</sup>	331	348	Not publicly available <sup>n</sup>	None published <sup>k</sup>	Hungary	No change
ConocoPhillips	168	62 <sup>e</sup>	372	374	Not publicly available <sup>n</sup>	None published <sup>k</sup>	Portugal	↑

from consuming oil and gas, driving cars or using any of Wal-mart's, or Asda's, thousands of product lines are included.

Quibbles around the quality of data aside, it would seem that half of our top 10 companies are definitely laggards when it comes to best practice in carbon management. Five of the 10 - Exxon, DaimlerChrysler, Chevron, Total and ConocoPhillips - do not appear to have published targets to reduce absolute carbon dioxide emissions. If a business is serious about tackling climate change, then public commitments to absolute carbon reductions – not relative reductions per unit of production/sales – are needed.

For those companies with published targets, the scale of ambition is varied. General Motors has set itself a target of an 8% reduction in carbon dioxide emissions by 2010, with Toyota taking a lead with a very credible target of a 20% reduction in the same period. Wal-mart is also committed to a 20% reduction, but over the next seven years. This level of aspiration in terms of carbon cuts is absolutely what is required in the short term but by 2050 we need to see cuts in the order of 60%, ideally 90%, if we are to stand a chance of stabilising our climate.

We also need to see significant investment in sustainable technologies. Business-as-usual investment patterns will not deliver a low carbon, sustainable economy. It is therefore disappointing to see that half of our top 10 don't publish separate figures for investment in new, sustainable technologies.

Of those noble five companies publicly disclosing investment in sustainable technologies, again, we see Toyota taking a lead, with a very credible 13.8% of total

annual capital investment being spent on sustainable options such as the use of renewable fuels and 'eco-drive' technologies. By contrast, it is questionable whether Shell's 1.1% investment is up to the scale of the challenge. With 6.8 % cent of annual capital investment allocated to sustainable technologies such as alternative energy, BP leads the oil majors in its investment in the future.

Although Wal-mart is only investing 3.1% of its overall capital expenditure on sustainable technologies, any investment here is significant given the influence of the world's biggest retailer on what and how we buy. Wal-mart's well-publicised sustainability ambitions will have a direct influence on global consumption patterns. By reducing the carbon required to bring everyday products to market and, hopefully in the longer-term, taking some carbon villains off the shelves, Wal-mart is making a meaningful contribution to a sustainable future.

However, in order to deliver the pace and scale of change required to guarantee a low carbon future, we need to see all the largest companies on the globe commit to stretching reduction targets, as well as to double-digit investment figures in new, sustainable technologies. Some of the carbon-hungry business models currently seen in our top 10 businesses are not part of a sustainable future. Carbon is becoming the new currency of business. Those businesses that use it wisely will be rewarded. Those that overspend will, along with their business models, be consigned to history.

### Dr Sally Uren is director of Forum for the Future's business programme

a The Forbes Global 2000 [http://www.forbes.com/lists/2007/18/biz\\_07forbes2000\\_The-Global-2000\\_Sales.html](http://www.forbes.com/lists/2007/18/biz_07forbes2000_The-Global-2000_Sales.html)

b Performance data from the Wal-Mart website CR / Annual Report. [www.walmartstores.com](http://www.walmartstores.com)

c Performance data from the ExxonMobil website CR / Annual Report [www.exxonmobil.com/corporate/community\\_ccr.aspx](http://www.exxonmobil.com/corporate/community_ccr.aspx)

d Performance data from the Shell website CR Report / Annual Report [www.shell.com/home/content/envirosoc-en/sustainability\\_reports/dir\\_shell\\_sustainability\\_reports.html](http://www.shell.com/home/content/envirosoc-en/sustainability_reports/dir_shell_sustainability_reports.html)

e Company response to The Carbon Disclosure Project 5 [www.cdproject.net](http://www.cdproject.net)

f Performance data from the General Motors website CR Report / Annual Report [www.gm.com/corporate/responsibility](http://www.gm.com/corporate/responsibility)

g Performance data from the DaimlerChrysler website CR Report / Annual Report [www.daimler.com/dccom/0-5-876574-1-886072-1-0-0-0-0-0-8-876574-0-0-0-0-0-0.html](http://www.daimler.com/dccom/0-5-876574-1-886072-1-0-0-0-0-0-8-876574-0-0-0-0-0-0.html)

h Calculation – Annual CO2 emissions divided by Annual sales

i Calculation – A pine tree may sequester 6.8 kg (15lbs) of CO2 a year. This means a tree sequesters 170 kg over 25 years and that approximately six trees are required to sequester a tonne over the same period of time. [www.tufts.edu/tie/tci/sequestration.htm](http://www.tufts.edu/tie/tci/sequestration.htm)

j Information provided from company websites and personal communications

k No specific figures are published on CO2 emissions targets, however commitments have been made by oil companies to increase energy efficiency surrounding production, refining and use of chemicals.

n Some automobile manufacturers, for instance DaimlerChrysler have made significant investments in a range of environmental and sustainable mobility technologies (DaimlerChrysler state they have invested \$2.4 billion during 2006 in sustainable mobility and environmental protection). However, it is not possible to break down these figures into purely sustainable technologies. Similarly, oil and energy companies provide information on research and development into technology, however they do not attribute investment figures to specific sustainable technologies. In addition to this Total states there is no clear separation between CO2 related investment and project investment. As a result investments in sustainable technologies are grouped with other capital expenditure figures. ConocoPhillips has announced they will invest \$22.5 million into researching bio renewable fuels over the next 8 years (0.5% of 2006 total annual capital expenditure).

\*\* <http://unstats.un.org/unsd/mdg/default.aspx>



# No excuses for inaction

**It is perhaps surprising that business is beginning to make progress on the environment while our elected governments are wasting precious time. Comment by Peter Madden.**

Whether it is the images of polar bears drowning, films like an Inconvenient Truth or the growing pile of learned reports, the evidence is sinking in and this country seems, at last, to be waking-up to sustainability. The Inter-Governmental Panel on Climate Change's latest assessment effectively ended any serious debate about whether climate change is happening, and whether human activity is the cause. Economist Nicholas Stern's report said that climate change could shrink the global economy by a fifth and calculated that for every £1 of investment in preventing climate change between £5 and £20 of impact related costs can be saved. Excuses not to act are in short supply.

This is great for those of us who have been slogging away on environmental issues for years, knocking on doors saying "this is important". The business response has really taken off this year. Amongst Forum for the Future's partners, Marks & Spencer have had the highest profile. Through their 'Plan A', they are investigating and tackling the sustainability impacts of every single area of their business. Equally ambitious declarations of intent have come from the retail giants Walmart and Tesco. Tesco, one of the top five retailers in the world, has promised independently audited absolute reductions in CO<sub>2</sub> emissions from its operations and carbon labelling on all products.

A significant change in approach from the companies we work with is the shift in perception of environment from a risk issue, to be handled by technical staff or the PR department, to a strategic issue, central to the future of the whole business. When we began work over a decade ago, our partners asked, "What should our sustainability strategy be, in the light of our business?" Now the likes of BT, First Choice and Unilever are asking, "What should our business strategy be, in the light of sustainability?"

Government is moving more slowly. The Climate Bill will set statutory targets for carbon reduction. But this Government has excelled at setting reduction targets whilst presiding over real increases. Their good intentions are not reflected in spending: less than £10 billion on environmental protection and enhancement, compared to the hundreds of billions spent on security, health and education. The same is true of taxation. Friends of the Earth calculate that – despite Gordon Brown's promise to the contrary – green taxes as a percentage of overall taxes have actually fallen (from 9.4 % to 7.7 %) since Labour took power in 1997.

Following the money would tell a similar story in other sectors. Even amongst some of the most high profile examples of business moving in the right direction – General Electric investing \$1.5bn in products that offer significant environmental benefits or BP putting \$8bn into its Alternative Energy business – the sums are still small compared to overall turnover, or investment in conventional, unsustainable paths.

So, we have some momentum and movement, but we are not there yet. What else do we need to do? One major task is to turn the green agenda from a negative to a positive one. The environment movement tends to focus on limits and constraints, and talk about the future in gloomily apocalyptic terms. Species are disappearing. The planet is overheating. If you want to do anything about it, you'll have to lead a life of sacrifice and constraint. This is not an enticing story for most people, and there is a real risk that they will move directly from ignorance to despair

As any brand manager will tell you, people want positive things they can aspire to. To motivate them to behave differently we need to offer attractive but credible visions of the future. Organisations also need to feel the pull of a better futures: rather than the need make efficiency savings or comply with regulations.

This positive framing unleashes the creativity and innovation necessary to make products and services smarter and more efficient, satisfying needs while using fewer of the earth's resources and contributing far less pollution. Plenty of examples show that it is possible to design out waste and harness clean sources of energy. We also know such approaches represent a huge market opportunity. Stern argues that: "as a result of action on climate change, new markets are created in low-carbon energy technologies and other low-carbon goods and services. These markets could grow to be worth hundreds of billions of dollars each year." Companies and investors need to start moving into them. Goldman Sachs says that "More capital is now focused on sustainable business models and the market is rewarding leaders and the new entrants in a way that could scarcely have been predicted even 15 years ago."

The timings, though, are very tight. With climate science giving us a window of 10 to 15 years to make really dramatic changes in the carbon intensity of our lifestyles, bold leadership is absolutely critical. While the public are increasingly concerned, many remain confused about what they should actually do. At the moment, we are seeing more signs of leadership from the business community, such as Tesco's Terry Leahy, Virgin's Richard Branson or Stuart Rose at M&S. As Leahy puts it, "I am determined that Tesco should be a leader in helping to create a low carbon economy". These commitments from the corporate world are leaving national governments looking rather timid. Take the the radicalism of Ken Livingstone and the untested plans of David Cameron out of the equation and genuine political leadership on sustainability is in worryingly short supply.

A low carbon Britain doesn't have to mean cutbacks and sacrifice. If we respond in the right way, many of the changes we make could improve our quality of life. We could be living healthier, more prosperous lives in stronger, better connected and cleaner communities. Will our leaders take us there?

**Peter Madden is Chief Executive of Forum for the Future**