



“It is self-evident that in a world of finite resources, population must be part of a long-term strategy for sustainability.”

Tomorrow’s World, Britain’s Share in a Sustainable Future, Friends of the Earth, 1997

Why **Population Matters** for Friends of the Earth

Friends of the Earth’s declared mission is to: “Make life better for people by inspiring solutions to environmental problems”.

An admirable ambition for an organisation that claims to be: “The most influential national environmental campaigning organisation with the world’s most extensive environmental network”.

Over its 40-year history, Friends of the Earth (FOE) can justifiably claim to have inspired people and influenced policy, both globally and nationally – reflecting its early strapline to, ‘Think Globally, Act Locally’.

The organisation has been in the vanguard of raising the public and political profile of the environment since its foundation in 1971. It took two decades of campaigning and pressure, but as part of the global environment movement, Friends of the Earth can take credit for getting the issues discussed and actions proposed by the largest ever gathering of world leaders at the first Earth Summit in 1992. Here at home, Friends of the Earth was the driving force in achieving the Climate Change Act 2008; making the UK the first country to set legally-binding, time-lined targets to cut greenhouse gas emissions.

The Earth Summit produced conventions on

climate change, biodiversity and on halting desertification – as well as an action plan, ‘Agenda 21’, signed up to by nearly 200 governments and manifested in myriad local community actions. In 2012, the world’s leaders gathered again for Rio+20.

But despite those international agreements and the concerted efforts of individuals and communities across the world, twenty years on the Earth’s ecosystems and natural resources continue to decline:

- An area of primary forest the size of Argentina (300 million hectares) has been lost since 1992. With 13 million hectares of rainforest cleared to other uses each year from 2000 – 2010¹
- Global carbon dioxide levels increased 36% over 1992 – 2008; 40% in the past 20 years²
- Overall biodiversity has declined by at least one-third.

Hence, the bleak summary of the current state of the world’s environment in WWF’s People and Planet magazine,

“Despite the optimism of the 1990s and the impressive list of conventions and treaties ratified by governments, the world is still confronted by the same set of intractable environment and resource challenges.”³



The world’s human population has nearly doubled over the past 40 years: from 3.7 billion in 1971 to over 7 billion today.

References

¹ Global Forest Resources assessment 2010, FAO Forestry Paper 163.

<http://www.fao.org/docrep/013/i1757e/i1757e.pdf>

² United Nations Environment Programme, Keeping Track of Our Changing Environment: From Rio to Rio + 20 (1992–2012) (Nairobi: UNEP, 2011).

³ <http://www.peopleandplanet.net/?lid=30401§ion=33&topic=27>

Nationally, the picture seems better – at least as far as curbing climate change is concerned.

Friends of the Earth's campaign to get the Climate Change Bill on the statute books was exemplary, engaging people throughout society, and securing sign-up across the political spectrum. Now the Bill is an Act, it seems to be working. A recent government progress review shows it to be ahead of the targets set for 2008 – 12; with a 26% reduction achieved in 2011, against an annual average set of 21.7%.⁴

However, the UK Government is operating to an interim reduction target of a 36% reduction on 1990 levels of greenhouse gases by 2020, with the overall objective of achieving an 80% cut by 2050. Friends of the Earth was already questioning whether that interim target was sufficient to prevent dangerous climate change just one year after the Climate Change Act came into being; calling for an interim cut of 'at least 42%' by 2020 if there were to be a reasonable chance of meeting the 80% reduction by 2050.⁵

In a more recent briefing, Friends of the Earth has revised the figures even higher – calling for 56% cuts on 1990 levels by 2020 and to bring forward the 80% cuts by twenty years to 2030. This dramatic increase in the level and pace of cuts is necessary because, "Recent scientific understanding of climate change suggests that the EU target of a maximum 2 degree temperature rise, identified in 1996, carries greater risks than previously thought. A temperature limit of 1.5 degrees is now more appropriate to reduce the risks of passing irreversible "tipping points". Even this would not wholly prevent increases in extreme weather with the catastrophic impacts they bring, especially to the poorest people with the least ability to adapt and respond."⁶

The organisation believes it is possible to achieve these steeper, faster-tracked cuts; but FOE's anxiety at the urgency and extent of the challenge is apparent in its openness to exploring the deployment of what it calls, "some risky technologies":

- Artificial 'trees' for capturing carbon
- Dumping crop biomass at sea
- 'Liming' the oceans.

Friends of the Earth isn't considering the full range of 'Captain Bonkers-style' geo-engineering tech-fixes as compiled (but not endorsed) by the Royal Society in 2009.⁷

However, the organisation's concern at the failure of current measures and policies to slow climate change sufficiently quickly has been interpreted by some commentators as presaging a reversal of one of the organisation's founding principles, its stance against nuclear power: "*Friends of the Earth is seriously considering abandoning its decades-long opposition to nuclear power, the organisation's head of policy, science and research... has revealed to me in an extensive and very frank interview*".⁸

Such interpretations may be wholly without foundation and represent mischievous stirring by those with their own agendas, but they do indicate the dwindling 'wriggle-room' remaining for effecting change – if only one of the two factors driving environmental degradation is addressed.

The inexorable rise in greenhouse gas emissions and decline in the world's biodiversity are driven by two factors:

- increasing levels of consumption
- increasing numbers of consumers.

Friends of the Earth has focused on the former for the past 40 years, but chosen not to address the latter. Yet as the Royal Society states in its report, *People and planet*, published in April 2012, "*Consumption and demography are closely inter-twined. Every person must consume, and each additional person on the planet will add to total consumption levels.*"⁹

In its recommendations at the end of the report, the Royal Society again emphasises the indivisible interaction between the factors of population and consumption and calls for this to be recognised and integrated into all international discussions, "*Population and the environment should not be considered as two separate issues. Demographic changes should be factored into international meetings such as the Rio+20 Conference.*"

They weren't. Neither in 1992 or 20 years later at Rio+20 was any serious, specific attention or action directed at what Jonathon Porritt, former Director of Friends of the Earth and later Chair of the UK's Sustainable Development Commission describes as, "one of the most important sustainability challenges today".¹⁰

Namely, Population.

References

⁴ UK GREENHOUSE GAS EMISSIONS REDUCTIONS: WHERE ARE WE?, <http://www.decc.gov.uk/assets/decc/11/stats/climate-change/6369-uk-greenhouse-gas-emissions-reductions-where-are-.pdf>

⁵ http://www.foe.co.uk/resource/briefings/2020_climate_target.pdf

⁶ Is it too late to avoid dangerous climate change? FOE Briefing, August 2012, http://www.foe.co.uk/resource/briefings/not_too_late_briefing.pdf

⁷ 'Start cutting CO2 before Captain Bonkers does,' Charles Clover, S. Times, 6th September 2009.

⁸ <http://www.marklynas.org/2012/06/friends-of-the-earth-considers-abandoning-anti-nuclear-stance/>

⁹ *People and the Planet*, Royal Society 2011

¹⁰ Resurgence & The Ecologist magazine, September/October 2012, Issue 274, 'The Elephant in the Room'. <http://www.resurgence.org/magazine/article3734.html>



“...while poor country population growth is not the driver of climate change, it would be absurd to deny that the necessary global transition to a low-carbon, less-resource intensive, less-polluting economic future will not be infinitely harder to achieve in a world of 10 billion rather than 6.8 billion.

Given its detrimental impacts on poverty reduction, it is surprising that the issue of population growth has received so little attention over the last decade from development donors, agencies and developing countries alike.”

Save the Children, 2010¹¹

“Why doesn’t Friends of the Earth campaign against overpopulation?”

A search of Friends of the Earth’s website produces only three documents dealing directly with the issue of Population – all three focused on seeking to answer the question above (as the most recent document of April 2011 is titled), ***‘Why doesn’t Friends of the Earth campaign against overpopulation?’***

A question that Friends of the Earth’s Local Groups have asked numerous times over the history of the organisation’s existence, with Motions put forward at several Local Group Conferences, notably in 2008 and 2009, calling for the national organisation to address the issue. The response from the staff body accepts that *“Growing population”* is one of the *“key trends that is driving ecosystem destruction”*, but goes on to state that it believes that, *“it is more effective, in the short-time we have to achieve change, to try to influence consumption and technology rather than population”*.

In its 2006 Briefing Note, Immigration, population and the environment, Friends of the Earth argues, *“Even if the world’s population stopped growing today it would not remove pressures on the environment. Humanity already outstrips the planet’s capacity to sustain us by 20 per cent.”*

Six years on from that briefing, the world’s population has increased by around half a billion people and is outstripping *“the planet’s capacity to sustain us”* by a further 30 per cent.

Friends of the Earth’s more recent policy paper of 2010 has shifted position slightly in recognising that, *“Population growth is one of the drivers of environmental degradation. However, in our view it is not the major driver. Rather, it is consumption issues which present a much greater and more urgent threat to the environment. We also believe that consumption issues, while challenging, are more amenable to influence by an organisation like Friends of the Earth England, Wales and Northern Ireland, based as it is in a high-consuming rich country.”*¹²

In the report *‘Home Truths’* by the Oxford Environmental Change Institute commissioned by Friends of the Earth and the Cooperative Bank, the researchers calculate that the 2 million more homes projected to be *“constructed between now and 2016 will lead to 1.7 million tonnes of carbon (Mt) additional emissions for England alone.”*¹³ Those additional homes and greenhouse gas emissions are attributed by the researchers to *“increasing population”, “falling household size”* and the fact that *“UK households are demanding a higher level of energy services (more warmth, hot water, space etc.) and this trend is not being offset by improvements in energy efficiency, so demand continues to grow.”*¹⁴

It doesn’t appear that the UK’s rising population is that “amenable” to having its rising consumption patterns influenced.

References

¹¹ Population Policy brief, Save the Children, March 2010

¹² Friends of the Earth Policy on Population, March 2010.

¹³ Home Truths: A low-carbon strategy to reduce UK housing emission by 80% by 2050, Brenda Boardman, Oxford Environmental Change Institute, ECI Research Report 34, November 2007

¹⁴ NERA 2007, page i

An inconvenient truth

An inconvenient truth that Friends of the Earth Local Groups from Barnet and Enfield drily noted in their 2011 Motion to Conference (seconded by Camden Friends of the Earth) on the subject of 'Personal allowances and fair shares', *"The sauropod dinosaur in the room. Gentle persuasion won't do enough. We don't see people driving or flying much less, only new roads and runways. Most people will continue to copy their peer group and aspire to high levels of material consumption unless there are radical measures to discourage consumption."*¹⁵

Actually, the 'sauropod dinosaur in the room' is population.

The number of global, as well as UK, consumers and their consumption levels are increasing, and despite considerable advances in technology over the past four decades, the dramatic levels of increased efficiency required to contend with that increased consumption mean that we have to look at all the factors and trends.¹⁶ The limits to technological efficiency have surely been reached when Friends of the Earth finds itself clutching at the straws of *"risky technologies"* to meet the *"eye-wateringly difficult reduction trajectories"* it now considers necessary if the world is to avoid breaching the 1.5 degree temperature rise threshold?

The reluctance of Friends of the Earth to address the issue of population in any depth is not unique.

No leading environment or conservation organisation is talking publicly about population – possibly out of concern that they will be accused of being 'misanthropic', 'racist'; of 'blaming the poor' or perhaps because they accept fatalistically that the Earth's human population will grow by at least 2 billion more people to reach 9.3 billion by 2050 and nothing can be done to prevent that UN projection becoming a fact?

There is no justification or excuse for such fears and fatalism.

Addressing the issue of population directly and in-depth offers a positive agenda that is about:

- Increasing the well-being of everyone on Earth
- Giving all women the right to choose and the freedom to control their own fertility – at least 215 million women worldwide, mainly in the poorest countries, want to delay or stop their next pregnancy, but do not have access to modern, safe contraceptive methods¹⁷
- Achieving sustainable development that respects the boundaries of our finite planet
- Enabling people throughout the world to plan the size of their families without coercion
- Sustaining a world that is rich in nature and renewable resources.

If Friends of the Earth is to live up to its claim to be, "the most influential national environmental campaigning organisation", then as urged by its own local groups it should take up the challenge and responsibility of addressing the issue of population and promote this positive agenda for the good of everyone and all life on Earth.

References

¹⁵ Motions to Conference 2011 http://www.foe.co.uk/resource/event_background_documents/motions_paper_2011.pdf

¹⁶ Prosperity without Growth – Economics for a finite planet, 2009, Tim Jackson.

¹⁷ Adding it up: costs & benefits of contraceptive services. Estimates for 2012.

<http://www.unfpa.org/webdav/site/global/shared/documents/publications/2012/AIU%20Paper%20-%20Estimates%20for%202012%20final.pdf>



“Population and the environment should not be considered as two separate issues.”

People and the Planet, Royal Society 2012

The evidence

Two recent reports highlight the issue of human population as a key factor in impacting upon our planet and its sustainability for our and all species on Earth. In terms of the current and predicted numbers of people on the planet, the number of people in both developed and developing countries, and of course, per person consumption rates in both.

Most importantly, the reports raise the debate above out-dated and polarised arguments as to whether it is the number of people on the planet or how much they consume that is critical.

As these reports make clear, it is not either or – but both.

People and the planet

The Royal Society’s report, *People and the planet*, published in April 2012, is the product of a Working Group of over 20 distinguished academics, scientists and experts, supported by a science policy staff of 5 advisors. The Working Group sought evidence from over 100 individuals and organisations across the globe; as well as receiving nearly 200 additional inputs sent in separately and via those attending three workshops held on the role of industry, NGOs and technology. The Working Group’s findings and recommendations were reviewed by an independent panel of eight experts before

being approved by Council of the Royal Society.

<http://royalsociety.org/policy/projects/people-planet/>

The Living Planet report 2012

The Living Planet report is produced by the Global Footprint Network and the World Wide Fund for Nature working in collaboration with the Zoological Society of London and the European Space Agency.

By collating and comparing a vast array of data on global biodiversity, ecosystems and natural resources, the Living Planet Report provides an unique overview of humanity’s demands and impacts upon our planet and their implications for the sustainability and well-being of our and the other species with which we share the Earth.

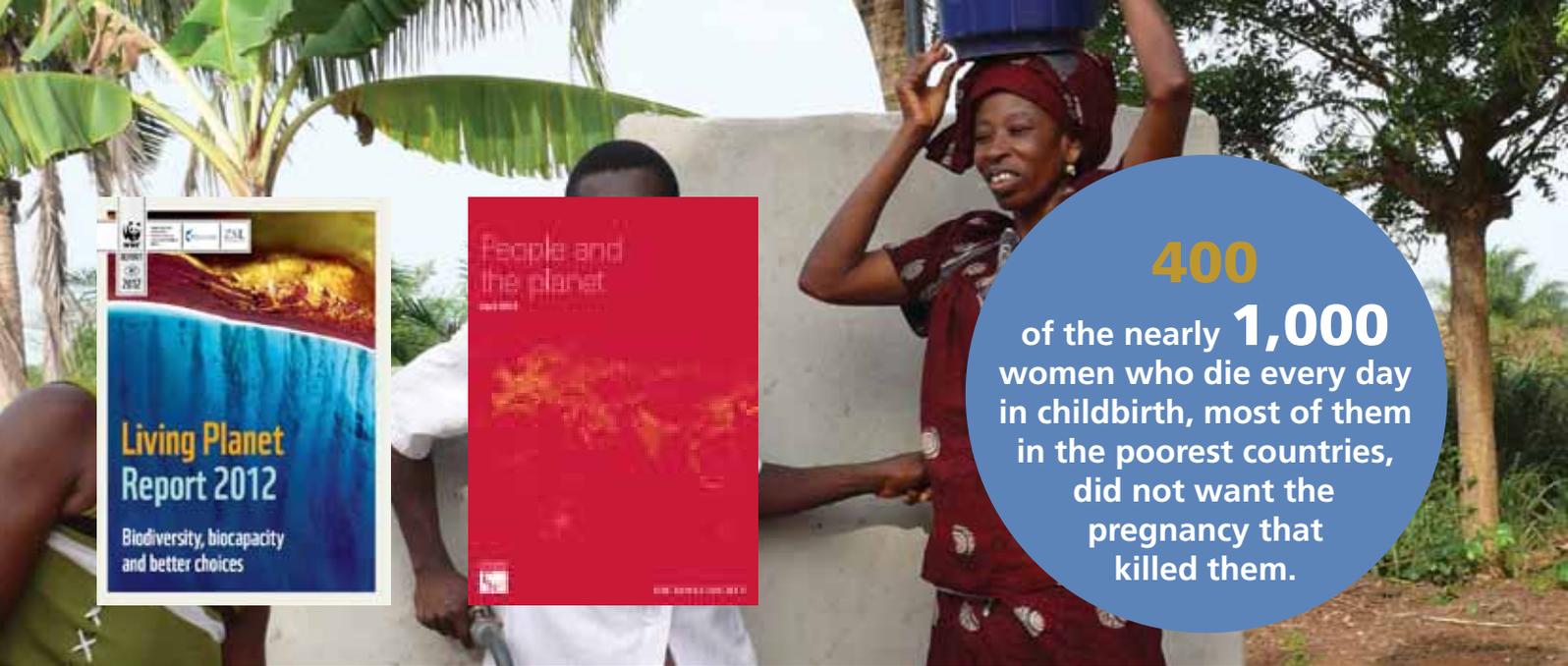
http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/

References

¹⁸ http://esa.un.org/wpp/unpp/panel_population.htm; UN (2010) World population prospects: the 2010 revision. Department of Economic and Social Affairs.



The UN’s medium projection for a future world population is 9.3 billion by 2050 – but the range extends from as ‘low’ as 8 billion to as high as 11 billion.¹⁸



400
of the nearly **1,000**
women who die every day
in childbirth, most of them
in the poorest countries,
did not want the
pregnancy that
killed them.

Key findings

People and the planet

“Population and the environment should not be considered as two separate issues.”

The Royal Society makes three summary recommendations for action:

- Firstly, that the world’s 1.3 billion poorest people need to be raised out of poverty
- Secondly, that rates of consumption must be urgently reduced in the most developed and emerging economies
- Thirdly, that global population growth needs to be slowed and stabilised.

Living Planet report

“With the world already in ecological overshoot, continued growth in population and per person footprint is clearly not a sustainable path.”

The report reaffirms the findings of earlier Living Planet assessments that the Earth’s capacity to provide ‘fair shares’ of its natural resources and outputs had already been exceeded *“sometime in the 1980s”*. By 2010, human activities and demands were using up one and a half planet’s worth of the resources that are available annually.

The report and its predecessors provide the best estimate and most comprehensive ‘snapshot’ of the state of all life on Earth.¹⁹ The latest report estimates that global biodiversity has declined

overall by 30% since 1970 and by double that (60%) in the tropics over the same period. Its authors conclude that a major factor driving these negative impacts on the world’s wild species is human population pressure, *“Human population dynamics are a major driving force behind environmental degradation. One aspect of this is the overall size of the global population, which has more than doubled since 1950 - to 7 billion in 2011 and is forecast to reach just over 9.3 billion people by 2050.”*²⁰

As the Living Planet report starkly states, overall all species on Earth, other than our own, have declined by at least a third over the past 40 years – with many close to collapse. In contrast, the human population has almost doubled over the same period – from 3.7 billion people on the planet in 1970 to over 7 billion today. As of 2000, more than 50% of the terrestrial biosphere was under intensive use and occupation by human beings – with a quarter of the world’s land mass cultivated for agriculture.

“Ignoring this diagnosis will have major implications for humanity. We can restore the planet’s health but only through addressing the root causes, population growth and over-consumption.”

Jonathan Baillie, Conservation Programme Director, Zoological Society of London²¹



Of the world’s estimated 1.7 billion ‘high-rate consumers’, 50% now live in the developing world.

References

¹⁹ The first Living Planet report first produced in 1998 is produced biennially.

²⁰ http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/2012_lpr/

²¹ Rising consumption, increased resource use by a growing population puts unbearable pressure on our Planet – WWF 2012 Living Planet Report http://wwf.panda.org/wwf_news/?2204732



The speed and extent of the changes to our planet's biodiversity and ecosystems are **hundreds to thousands** of times what would be expected as the normal 'background level'.

The Anthropocene Era



Scientists term the current era on Planet Earth the 'Anthropocene'; dominated as it is by us and our activities which threaten to cause the '6th Great Extinction' of life on Earth

– comparable to the major geological events evident in the fossil record.²² The key difference between this one and the previous five is that the catastrophic changes are happening over decades rather than geological timescales.

We know from the Living Planet report that the human species is already drawing down excessively upon the Earth's available resources – such that we (or some of us) are using up one and half planet's worth of resources that would be available on a sustainable basis. Calls from environmental groups to rebalance the equation by reducing our consumption in the developed world have to date gone largely unheeded.

Consumption has been the factor that environmental NGOs and policy makers have focused on as the key driver of detrimental environmental impacts upon the planet, its biodiversity and ecosystems.

The chosen paths to address unsustainable consumption have been via attempts to promote 'lighter footprints' coupled with smarter, more efficient ways of using and re-using the resources required to produce the goods and services people consume.

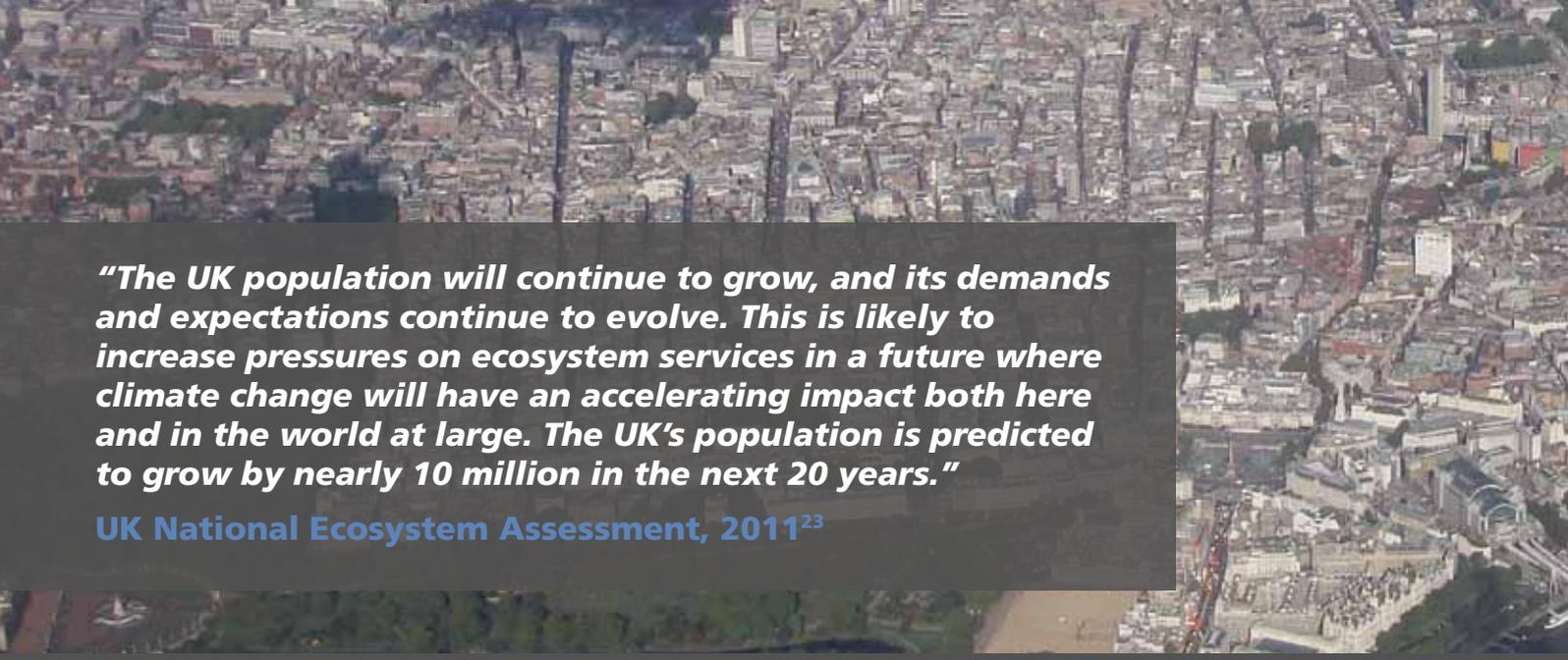
That is an understandable and pragmatic approach – but it has not been sufficient.

References

²² Has the Earth's sixth mass extinction already arrived?, Anthony D. Barnosky, Nicholas Matzke, Susumu Tomiya, Guinevere O. U. Wogan, Brian Swartz, Tiago B. Quental, Charles Marshall, Jenny L. McGuire, Emily L. Lindsey, Kaitlin C. Maguire, Ben Mersey & Elizabeth A. Ferrer <http://www.nature.com/nature/journal/v471/n7336/full/nature09678.html>



70%
of UK farmland
species of plants,
butterflies, bees, birds
and other mammals
are in decline.



“The UK population will continue to grow, and its demands and expectations continue to evolve. This is likely to increase pressures on ecosystem services in a future where climate change will have an accelerating impact both here and in the world at large. The UK’s population is predicted to grow by nearly 10 million in the next 20 years.”

UK National Ecosystem Assessment, 2011²³

Adding the ‘P’ factor

Until the factor of Population is added to the equation, organisations and policy-makers seeking to create conditions whereby everyone on Earth can enjoy a decent quality of life and a fair share of our planet’s resources without compromising the ability of future generations to do so – i.e. live sustainably – are doomed to failure.

At the beginning of the 20th Century there were 1.6 billion people on Earth, whose activities (predominantly in the industrialised developed countries) released 0.5 billion tonnes of carbon to the atmosphere annually. By 2000, the number of people had increased to over 6 billion and global annual carbon emissions by nearly 15 times to 7.3 billion tonnes.

True, carbon emissions per person and overall are much higher for those of us living in the industrialised nations – each new born UK citizen will be responsible for 35 times the amount of greenhouse gas emissions than a baby born in Bangladesh and over 160 times more than one born in Ethiopia. But the rest of the world is catching up – the fastest growth rates in both per capita and total greenhouse gas emissions now occur in the less developed countries.

Many would argue that this is only fair – people in the less developed countries deserve a greater share of the Earth’s

available resources to enable them to attain the quality of life of people living in the industrialised countries. The USA with just 5% of the world’s population is responsible for over 20% of global carbon dioxide emissions – and its current trajectory is to increase emissions of greenhouse gases by 10% on 1990 levels. Whereas China with four times the share of the world’s population at 20%, produces 17% of global greenhouse gas emissions.²⁴

However, China’s overall emissions have rocketed by 170% since 2000, driven by a rising and increasingly affluent population, such that it has overtaken the USA and won the dubious title of being the World’s major emitter of greenhouse gases.²⁵ A trend noted in the assessment of the economic impacts of climate change by Sir Nicholas Stern for HM Treasury, *“Population growth rates will be higher among the developing countries, which are also likely in aggregate to have more rapid emissions growth per head. This means that emissions in the developing world will grow significantly faster than in the developed world, requiring a still sharper focus on emissions abatement in the larger economies like China, India and Brazil.”*²⁶

References

²³ <http://www.defra.gov.uk/environment/natural/uknea/>

²⁴ UNDP Unequal carbon footprints: shares of emissions and population, <http://hdr.undp.org/en/statistics/data/climatechange/shares/>

²⁵ Is it too late to avoid dangerous climate change? Friends of the Earth, August 2012

²⁶ STERN REVIEW: The Economics of Climate Change, http://www.hm-treasury.gov.uk/d/Chapter_7_Projecting_the_Growth_of_Greenhouse-Gas_Emissions.pdf



10 million more people are predicted to be living in England by 2030; a population rise equivalent to 10 cities the size of Birmingham.

I = P x A x T

Our impact on our planet is a combination of factors:

- **Overall human numbers**
- **The amount each of us consumes/ demands of the Earth**
- **Available technology and its efficiency to provide the goods and services derived from the Earth's resources.**

Those three factors have been combined in the equation formulated by Paul Ehrlich and John Holdren: $I = P \times A \times T$ – in which impact 'I' is a factor of population 'P', affluence 'A' and technology 'T'.²⁷

To reduce the impact on our planet, we can potentially intervene in three ways: curb consumption; improve efficiency of resource use; slow and stabilise population growth. Exclude the 'P' (Population) factor and you load even greater expectations on changing consumption habits (Affluence) and upon the ability of science and technology to deliver ever greater efficiencies (Technology).

Limits to Efficiency

When the 18th century cleric and political economist, Thomas Malthus wrote his essay on 'The Principles of Population' in 1798 with its grim predictions that human numbers would overtake our capacity to feed ourselves – bringing war, famine and plague, he did not

foresee the impressive advances in human ingenuity, especially agricultural technology and the development of birth control methods. Agricultural advances that enabled farmers to achieve exponential increases in yields and, along with birth control, dispelled Malthus's bleak, joyless (his proposed solution was sexual abstinence) view as irrelevant and merely of historic interest.

Through the use of new high-yielding varieties of wheat, rice and other staple crops allied to greater mechanisation, irrigation and increased use of artificial fertilisers and pesticides, the 'Green Revolution' tripled world food production over a period of thirty years running from the 1960s to 1990s. But since the 1990s, crop yields have stopped rising (claims made for genetically modified crops have not been yet realised), and many plant breeders believe that the physiological limits for any further yield increases have been reached for most crop plants. US Department of Agriculture plant scientist Thomas R. Sinclair observes that, *"except for a few options which allow small increases in the yield ceiling, the physiological limit to crop yields may well have been reached under experimental conditions."*²⁸

Even if they haven't, the increased yields achieved from intensive agriculture have not been achieved without considerable cost:

- The UN estimates that half of the world's current arable land will be 'unusable' by 2050 due to desertification and soil degradation²⁹

References

- ²⁷ <http://www.ecoglobe.org/population/agerley/ipat.html>
- ²⁸ *Outgrowing the Earth: The Food Security Challenge in an Age of Falling Water Tables and Rising Temperatures*, Lester R. Brown. Earth Policy Institute, 2004. http://www.earth-policy.org/books/out/ote4_4
- ²⁹ *State of the World's Soils*, UNEP, 2002. Also see: <http://www.unep.org/pdf/UNEP-strategy-land-soil-03-2004.pdf>

- Across the world, agriculture uses 70% of the world's available fresh water – each kilo of wheat requiring 1000 litres of water to get it to harvest; rice upwards of 2,000 to 5,000 litres of water per kilo; and for beef a staggering 16,000 litres per kilo of meat produced³⁰
- According to the Food and Agriculture Organisation, by 2025 1.8 billion people will be living in areas of the world suffering from 'absolute water scarcity' and two-thirds of the world's population are likely to be contending with 'water stress conditions'.³¹

Feeding over 9 billion people is going to challenge human ingenuity, let alone raising everyone's quality of life to that enjoyed by those of us in the developed world, as Professor Tim Jackson, Economics commissioner for the Sustainable Development Commission makes plain in his book, 'Prosperity without Growth', *"If 9 billion people aspired to live at the level of affluence achieved in the OECD nations, the global economy would need to be 15 times the size of this one by 2050 and 40 times bigger by the end of the century."*³²

The scale of the challenge for increased technological efficiency is starkly demonstrated by Jackson's calculation of the rate of carbon cutting required to sustain that global population at that level of affluence – 16 times greater than that achieved since 1990. A calculation that leads him to comment, *"In this context, simplistic assumptions that capitalism's propensity for efficiency will allow us to stabilise the climate and protect against resource scarcity are nothing short of delusional."*³³

England's people density is over 400 per square kilometre – rivalling Holland to claim the title of 'most densely populated country in Europe.'³⁵

References

³⁰ <http://www.ifad.org/english/water/key.htm>

³¹ Making Every Drop Count, FAO 2007, <http://www.fao.org/newsroom/en/news/2007/1000494/index.html>

³² <http://www.sd-commission.org.uk/publications.php?id=914>

³³ Prosperity without Growth, The transition to a sustainable economy, Professor Tim Jackson, Sustainable Development Commission, March 2009

³⁴ <http://populationmatters.org/2011/population-matters-news/people-uk-population-high/?phpMyAdmin=e11b8b687c20198d9ad050fbb1aa7f2f>

³⁵ <http://www.ons.gov.uk/ons/rel/mro/news-release/census-shows-population-of-england-and-wales-is-over-56-million/censusengwainr0712.html>

³⁶ Professor Joel E Cohen, Professor of populations at Rockefeller University & Columbia University, NY, quoted in: <http://earthsky.org/human-world/joel-cohen-top-10-key-population-trends-on-earth-with-7-billion>

Principles underpinning concern about and action on Population

Universality – current levels of and predicted growth in population are of concern in both developed and developing countries.

Proportionality – curbing consumption levels of those who consume the most currently is crucial.

Equity – improving the well-being of the over 1 billion people who exist on less than \$2 a day is a priority, such that they enjoy a fairer share of the Earth's available, sustainable resources.

Equality – low-cost, safe family planning should be available for all women on demand as their right to control their own fertility.

Choice – a voluntary, rights-based approach; coercion has no place in any strategy seeking to achieve a sustainable global population.

80%
of people in the UK think our population is too high. Over four out of five (84%) think the world population is too high.

Population is an issue of public concern

FOE and other NGOs should take heart from the fact that a large proportion of the public are concerned about the growth of populations in the UK and globally:

- A YouGov survey carried out in May 2011 of 3,538 UK adults found that almost four out of five (79%) thought the UK population was too high, with almost half (45%) saying it was much too high;
- Over four out of five (84%) thought the world population was too high; with over half (53%) thinking it was much too high.³⁴





Overall global biodiversity has declined by more than

30%
over the past 40 years
with many species close
to collapse.

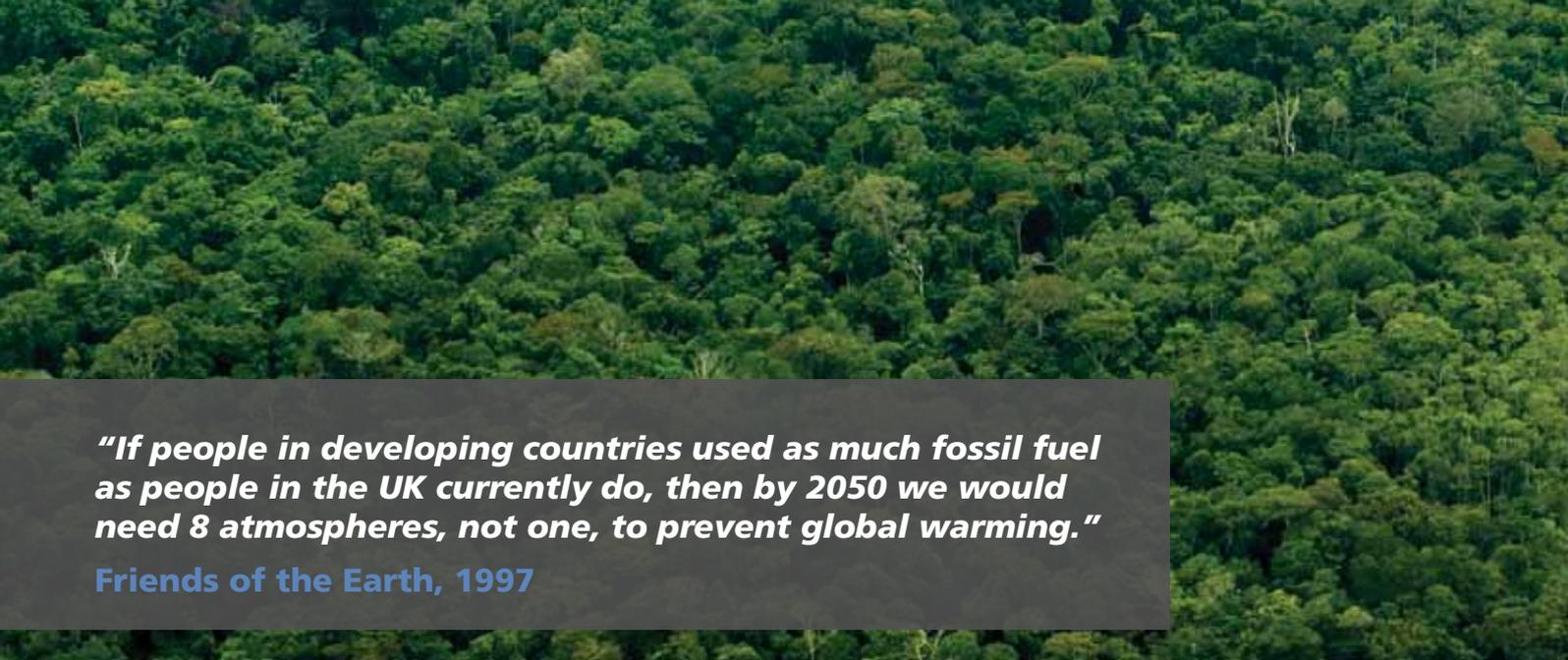
World population
is growing currently at a rate

of **80 million**
more people per year

– mainly in the developing countries, due to the
large numbers of women of child-bearing age.

To meet the needs of those extra people,
developing countries will need to build a city
capable of housing 1 million people

**every 5 days
from now until
2050.³⁶**



“If people in developing countries used as much fossil fuel as people in the UK currently do, then by 2050 we would need 8 atmospheres, not one, to prevent global warming.”

Friends of the Earth, 1997

Tomorrow's World

In 1997, Friends of the Earth published **Tomorrow's World – Britain's Share in a Sustainable Future**, presenting a stark summary of how far we, in a western developed country had to go if we were to meet the accepted definition of sustainable development as, 'development which meets the needs of the present, without compromising the ability of future generations to meet their own needs'³⁷ – and to do so, whilst re-balancing the inequity between the developed and developing world.

Tomorrow's World concluded that to deliver sustainable, equitable development the UK needed to reduce its consumption of available resources by between 15 – 100%, depending on which resource sector was under consideration.

The headline concept that resonated in the media was that, *“If people in developing countries used as much fossil fuel as people in the UK currently do, then by 2050 we would need 8 atmospheres, not one, to prevent global warming.”*

In its detailed sector by sector consideration of the cuts in consumption necessary, if the UK were to achieve sustainable development, Tomorrow's World set targets for reducing various environmental negatives and increasing other beneficial activities and practices in the UK by 2010:

- Road traffic to be reduced by 10%
- A 15% decrease in water use
- A 30% cut in energy use
- 25% of Britain's home produced food to be grown organically by 2010 and 100% 'converted entirely to organic or sustainable agriculture by 2050.'

The reality 15 years on is that:

- UK vehicle use has increased by 14%
- Water use per person has continued to increase by 1% year on year since the 1950s. Current per capita household use is 150 litres per day - a ton of water a week
- Despite the promotion of energy-saving measures, UK domestic energy use has risen by nearly one-fifth over the past four decades³⁸
- The area of UK farmland under organic management stands at less than 5%, expanding just 2% since 1997.³⁹

References

³⁷ World Commission on Environment and Development, 1987 *Our Common Future*, Oxford.

³⁸ Department of Energy and Climate Change - secondary analysis of data from the Building Research Establishment.

³⁹ Soil Association Organic Market report 2012, <http://www.soilassociation.org/marketreport>



Tomorrow's World's calculations for the necessary reductions in the UK's consumption and fair share of the world's resources were based around the assumption, 'that the UK population will remain around 60 million'.

Yet in 2012, the UK's population already stands at over 62 million with the Office of National Statistics projecting an increase of 10 million by 2033, rising to 70.6 million.⁴⁰

An additional 10 million people in the UK makes a big difference.

Official UK targets for reducing overall carbon dioxide levels are an 80% cut on 1990 levels by 2050; 34-42% by 2020. In the 1990s, UK per capita carbon dioxide emissions equalled over 10 tonnes per person annually. If the population remained stable, then the necessary cuts per person to meet the targets above would be of the order of 2 – 3 tonnes for each person.

But if the population grows as predicted, a cut of at least an extra tonne per person will be required.⁴¹

In 1997 in Tomorrow's World Friends of the Earth cited and endorsed the validity of the $I = P \times A \times T$ equation,

"The share the UK currently takes of global environmental space depends on three factors: the number of consumers (in other words our population), the amount of goods and services each of us consumes (our average rate of consumption), and the efficiency of our economy on converting environmental space into goods and services (the technological factor). These factors can be related in the form of an equation: the total impact we can impose on the environment (I) is a function of the total population (P), the per capita level of consumption or affluence (A), and the technological efficiency (T) with which we use the environment to generate wealth. This gives us the 'Ehrlich' equation: $I = P \times A \times T$."⁴²

The evidence summarised in this briefing shows that Friends of the Earth should re-affirm that endorsement made fifteen years ago and acknowledge the 'P' factor – Population – in all its campaign and policy outputs.

References

⁴⁰ ONS, National Population Projections, 2009.

⁴¹ Growing pains, population and sustainability in the UK, forum for the future, June 2010.

⁴² Tomorrow's World – Britain's Share in a Sustainable Future, 1997, Earthscan.

Addressing population, the most effective eco-action

Because consumption per capita continues to be so high in countries like the UK and America, the missing or ignored factor of population has to be addressed - each additional consumer in the developed world makes a globally disproportionate impact.

A study by Oregon State University in 2009, comparing the impact of an individual adopting six life-style changes to cut their carbon budget over a lifetime, against the single action of having one less child, bears out:

- By adopting the practical and available 'environmentally-friendly' actions of driving a more fuel-efficient car; halving annual car mileage; fitting double-glazing and low-energy light-bulbs; replacing an older, inefficient refrigerator; recycling all paper, tin and glass - an individual over their lifetime could curb their carbon budget by 486 tonnes.
- By taking the single, personal decision to have one less child, a woman and her family would save 9,441 tonnes of carbon over her lifetime.

Nearly 20 times the amount saved from all other positive eco-actions combined.⁴³

Fewer people, fairer shares

In contrast to that average American citizen, the people of sub-Saharan Africa and south east Asia, who make up over a third of all people on the planet use (or rather receive) just 3.2% of the world's available resources.

There is no disputing that such unjust disparities in consumption have to be addressed if both global equity and sustainability are to be achieved. But rising populations in poor countries undermine their citizens' opportunities to develop and improve their quality of life, as leading UK development NGO Save the Children notes, *"This issue (population growth) should be of particular concern to those working in the development sector, as rapid population growth in the world's poorest countries is a major obstacle to poverty reduction. For*

*example, rapid population growth rates and high fertility rates correlate closely with high rates of maternal and child mortality, and most of the countries that are furthest from achieving the Millennium Development Goals have high rates of population growth."*⁴⁴

Globally, both overall population and the average 'footprint per person' have increased since 1961 – although neither has risen equitably. In Africa, the average per person footprint has decreased by 0.07 global hectares per person over 1961 to 2008; yet the continent's rapid population growth means that Africa's overall footprint has actually tripled since 1961.

Rising numbers of people make things worse for people and planet.

215 million
women worldwide want to delay or stop their next pregnancy, but do not have access to modern, safe contraceptive methods.



References

⁴³ Reproduction and the carbon legacies of individuals, Paul A. Murtaugh, Michael G. Schlax, Department of Statistics, Oregon State University, 44 Kidder Hall, Corvallis, OR 97331, USA, College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, OR 97331, USA. Global Environmental Change 19 (2009) 14- 20

<http://www.biologicaldiversity.org/campaigns/overpopulation/pdfs/OSUCarbonStudy.pdf>

⁴⁴ Population Policy brief, Save the Children, March 2010



“At present there are no well-charted ways for 10 billion people to achieve lifestyles like those enjoyed in the Most Developed Countries, because the only known way forward is economic growth, and that will come into collision with the finite earth. Technology can help, but without socio-political change it cannot solve. There is much work to be done.”

People and the planet, Royal Society 2012

Prosperity **without growth**

In parallel with the need for Friends of the Earth and all environmental NGOs to be more active and outspoken on the issue of population, the delusion of limitless growth on a finite planet must be exposed. Conventional ‘classical’ economists in the western developed countries look to constant growth in consumption and consumers as the only means to maintain a vibrant economy and to provide the care and services required by increasingly, ageing domestic populations.

A concerted and united effort is required from Friends of the Earth and all environment NGOs to challenge the conventional model of economic growth and propose alternative models as per the proposals in ‘Prosperity without Growth’ that redefine human well-being and quality of life in terms of, “a much broader basket of economic, social and ecological factors”.⁴⁵

References

⁴⁵ See: ‘Growing Pains, Population and Sustainability in the UK, forum for the future, June 2010.

⁴⁶ <http://oecd.org/dev/44457738.pdf>

www.forbes.com/sites/kenrapoza/2011/09/05/within-a-generation-china-middle-class-four-times-larger-than-americas/

Of the world’s estimated

1.7 billion
high-rate consumers,

50% now live in the
developing world

with the Chinese and Indian middle-classes now making up 20% of the world’s consumer class, a greater number than everyone currently living in Western Europe.



“All environmental problems become harder – and ultimately impossible – to solve with ever more people.”

Sir David Attenborough

Take **action**

Given the evidence summarised here, we ask Friends of the Earth to add its respected voice and considerable influence to ensure the findings and implications of the Royal Society and Living Planet reports are understood by the public and acted upon by policy-makers.

And **commit** to the following actions:

- **Accept and promote** the findings of the Royal Society’s People and planet report that Population and Consumption must be considered as indivisible, linked issues
- **Acknowledge publicly and actively communicate** the crucial relevance of population to FOE’s mission and objectives
- **Support and advocate** the principle of universal access to safe, affordable family planning for all women throughout the world
- **Call on the Government to act** on the findings of the Royal Society’s report and draw-up a national population policy
- **Use its considerable policy resources, voice and influence** to speak out and engage its members and the wider public in an intelligent, informed and honest debate about the Population issue
- **Include the ‘P’ factor** in all its relevant public communications and policy pronouncements i.e. accept the full formula $I = P \times A \times T$.

Find out more

Further information on Population issues can be found at:

www.unfpa.org

www.populationmatters.org

www.appg-popdevrh.org.uk

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