

Royal Society Study on Population

Evidence submitted by the Optimum Population Trust/Population Matters

A: Summary Responses to Questions in Call for Evidence

1. Introduction

The OPT (changing shortly to Population Matters), an environmental charity raising awareness of the damaging impacts of population growth through education, research and advocacy, warmly welcomes the Society's new study.

2. Overview: Implications of a Finite Planet

Before answering the questions individually, it is important to consider Questions 1, 2, 4 and 5 (the linkages) together, starting with two truisms: that indefinite growth in anything physical on a physically finite planet is self-evidently physically impossible; so current growth in both resource-consumption per head and the number of consumers will definitely stop at some point; and the more people there are, the less planet they have each. A discontinuity in both being certain, **the key questions are how and when**, not whether. The options in both cases are: either sooner, in an orderly way, through human policy changes; or later, in a disorderly way, through the natural application of the laws of physics; or of course some combination.

3. The end of growth in consumption per head, ie of conventional economic growth, if not achieved sooner by policy, could come about later in a large number of ways, combining: resource depletion, leading to shortages and price rises; ecological system failure; peak oil, leading to a structural rise in energy prices with knock-on effects across the economy; food, water, energy and mineral shortages and price rises; loss of soil and soil fertility, forests, fisheries and biodiversity etc; all exacerbated by population growth (ever more people getting ever less each); and climate change, ocean acidification etc; of all of which, all population growth increases the number of both causes and victims.

4. The end of growth in population, though clearly related to consumption, can however only come about in one of two ways, or a combination: either sooner by fewer births (contraception and female empowerment, backed by population policy); or later by more deaths (the natural controls of famine, disease and predation/war).

5. The above non-policy options for the inevitable discontinuity equate broadly to 'the end of civilisation as we know it', and are clearly to be avoided if possible.

6. How? Ending Growth in Resource-Consumption

As non-economists, we fully support the aims, and broadly support the policy recommendations, of 'Enough is Enough' (the Centre for the Advancement of the Steady State Economy), summarised as: Stabilise population; Cap-auction-trade systems for basic resources; Ecological tax reform (tax 'bads' not 'goods', and internalize externalities by regulation and subsidy); Limit the range of inequality in income distribution; Shorten the working day, week and year; Reduce/eliminate fractional reserve banking; Reform national accounts (replace GDP with Quality of Life); Re-regulate international trade, internalizing externalities; Add to the mandates of the IMF and WTO an overriding duty to promote sustainability.

7. How? Ending Growth in Population

This is clearly extremely complex and difficult in practice (and will presumably be the main focus of the RS study), but broadly through: raising awareness of and priority for the problem in Governments, NGOs, professions, faith groups, educational institutions, media and wider society; adoption of non-coercive population stabilisation and reduction policies in all countries; provision of universal access to family planning information and services; education and empowerment of women; wider programmes to promote 'culture shift' in favour of smaller families, including use of tax and benefit systems in developed countries.

8. When? Key Question: "How long have we got?"

The greater the urgency, the more radical will be the measures needed to avert a non-policy discontinuity. In drawing up scenarios for an uncertain future, therefore, in which the continuation of 'business as usual' will presumably lead to the earliest non-policy discontinuity which the immediate adoption of the measures above might avert altogether, we hope the Society will endeavour to put a range of timescales. Given the uncertainties about future economic, climatic, technological, and political developments, and probable but incalculable tipping points in natural and social systems, we recognise that these will have to be the product of the Society's collective 'best guesses'; but would still be extremely helpful to policy-makers.

9. Question 1: The UN Population Division is the primary source. The key determinants of levels and rates of change are clearly the balance between fertility and mortality; both being much lower in stable countries and regions than in regions of rapid growth, with wide variations between them. Migration tends to rise with increasing but not extreme poverty ("too poor to travel"), which high growth rates in the poorest countries exacerbates (cf All-Party Parliamentary Group report 'Return of the Population Growth Factor' 2007, and 2009 update). Ageing populations are largely a feature of industrialised countries, the population momentum of recent rapid growth in poorer countries keeping their averages young. Pro-natalist policies to support older people in some OECD countries, however, are clearly a short-term Ponzi scheme, benefiting the current generation at the longer-term expense of the next, who (with luck) will grow old in turn, but suffer the higher resulting rate of environmental degradation and consequent higher mortality. Urbanisation tends to reduce fertility, with more accessible reproductive health care than in rural areas.

10. Question 2: All population growth increases impacts on the environment, with adverse longer-term impacts on economies, societies and cultures as mortality increases. In combination with climate change and peak oil, it exacerbates all economic problems, notably food supply (cf World Bank report linking food to oil prices Aug 2010). In the shorter term, overcrowding: increases migration with consequent reduction in social cohesion; increases competition among individuals or tribal groups for increasingly scarce resources, with consequent impacts on civil order and with the old and weak disadvantaged ("Every city is only 9 meals from

anarchy”); and has unpredictable effects on culture, ranging from the rise of small-scale but dynamic entrepreneurship, to mere brutalisation, or the emergence of new religious sects.

11. Question 3: The fundamental weakness of existing population models is that they avoid taking account of accelerating environmental degradation and resource-depletion, and thus the increasing likelihood of a non-policy discontinuity, entailing a rapid increase in mortality; assuming instead that the long-term future will be like the recent past, and that ‘business as usual’ will somehow lead to a prosperous and sustainable world of some 10 billion people. We hope the RS study will avoid this familiar but groundless optimism.

12, Question 4: See ‘Overview’ above. In addition to the environmental and resource impacts of population growth, outlined in para 3 above, it also exacerbates the loss of amenity, pollution, congestion, and social and psychological stress (cf UK Population Panel report 1973 Cmnd 5258). Traditional cultural and religious preferences for large families, Catholic doctrine on, and wider aversion to family planning, and female disempowerment are the key obstacles to population stabilisation in poor countries; but programmes of education and female empowerment need also to hold at least the prospect of some consequent rise in personal prosperity. In developed countries, where populations are still rising but women are already able to control their own fertility, subtler programmes of behavioural and cultural shift in favour of smaller families are needed, together with judicious use of the tax/benefit system.

13. Question 5: All three elements in the familiar IPAT function clearly need to be tackled if sustainability is to be achieved; exclusive concentration on T by politicians and A by the development lobby are equally futile. Improvements in Technology are uncontroversial, but hold no promise of a ‘quick fix’ (cf hydrogen fusion power); while the political problems of reducing Affluence even in over-consuming developed democracies requires a level of leadership and maturity among the electorate which is not yet in sight; let alone in the industrialising countries, where such a move would rightly be seen as unjust. So if Impact is to be reduced, Population stabilisation and reduction, while difficult, is no more so than the other two necessary (but not sufficient) conditions of sustainability.

14. Question 6: The most effective fertility-reduction policies have been: China (the only coercive policy, not replicable elsewhere); Thailand (equally effective); Iran (until an apparent recent reversal); Kerala; and Bangladesh. The worst policy is to have none. Conspicuous examples include: Niger, very poor, with the highest growth rate in the world (3.9%), which if continued for a century would increase its population from 16 million (nearly half of which it cannot feed) to over half a billion; the USA, very rich, with a carbon footprint per head 190 times that of Niger, projecting a growth rate of 1% which if continued for a century would increase its population from 318 million to 860 million (with a total carbon footprint equivalent to 160 billion Niger people!); and the UK (ONS projections of 10 million more by 2033 - “10 more Birminghams”), half each from net migration and natural increase, when England is now the most densely populated country in Europe, OPT’s YouGov poll found that 70% of the public are concerned at the serious environmental damage UK population growth is already doing while only 8% actually want any more growth at all, and both the Chief Scientist and the President of the Royal Society gave speeches

last year referring to the approaching “perfect storm” of overpopulation, climate change and peak oil reducing food, water and energy security, yet at least the former Government declared itself unconcerned.

15. Question 7: Apart from the key question raised in para 8 above, we hope that psychologists and historians can contribute an analysis of the origins of the irrational ‘taboo’ on discussion of population issues among leaders of opinion, which has effectively stifled debate in most countries for the last 30 years or so; and that psychologists can propose a range of effective measures to overcome it. This would complement the wider global study of cultural and religious obstacles. In addition, further research is needed on the most effective population stabilisation and reduction practices (in the absence of any formal ‘policy’) in developed countries such as the Germany or Denmark; and we hope the Society will give due weight to the UK, notably its poor record in reproductive health, sex and relationships education, teenage pregnancy, perverse effects in the fiscal/benefits system, and understanding of contraceptive options by GPs and the public.

16. Annexes

Numerous research and policy papers are available on our website, www.optimumpopulation.org For ease of reference, I attach a few:

- * **Summary Position Statement:** the case for population policies in all countries;
- * **Population Graph:** the current crisis in the context of the Earth’s long history;
- * **Overpopulation Index:** extrapolation from Global Footprint Network data;
- * **Policy Paper on the Population/Climate Change link:** a draft text for the UNFCCC talks, now promoted by an African Government.
- * **Summary of Evidence for the Royal Commission on Environmental Pollution:** the UK issues raised for RCEP’s final study are applicable more widely.
- * **Graphic: 100-year Population Projection, Horn of Africa,** if current growth rates continued. (Impossible).

17. Recent Major OPT Research Projects (on website)

- * **“Youthquake”:** (Professor John Guillebaud 2007).
- * **“Fewer Emitters, Lower Emissions, Less Cost: Reducing Carbon Emissions by Investing in Family Planning”** (Thomas Wire 2009): despite a flawed costing assumption, a case for overall cost-effectiveness, and more research, is made.
- * **“Running up a Down Escalator: UK Population Growth to 2033 – the Taxpayer’s and Planet’s Bill”** (Erasmia Anastasaki 2010): a projection of £1 trillion more public spending and 1 billion more carbon tonnes emitted (or 27,000 more wind turbines).