

TWT Position on Population, Resource Use & Consumption in the UK

Population & The Wildlife Trusts

Preamble

The Wildlife Trusts believe that it is insufficient simply to prevent the further decline in the quantity and quality of existing habitats, species and natural places. We must enable nature to recover, on a grand scale. We must create Living Landscapes and secure Living Seas.

For nature to recover, a broad cross section of society must:

- understand that humanity is part of a complex natural world and wholly dependent on it;
- understand the true value of nature to us, to our local communities, to wider society and to our economy;
- appreciate the consequences of our decisions and actions for nature – and in particular for the natural environment on which our health, happiness, wealth and wellbeing depend;
- translate that understanding into action that reduces the harm we cause to the natural environment and that helps nature to recover.

Where Population Fits In

An important part of this is the impact of the growing human population on the natural environment.

Increasing population is only one contributor to our increasing impact on the natural environment, but the presence of more people will inevitably make nature's recovery more difficult.

The overall impact of the UK's human population on the natural environment can be represented using a simple equation¹:

$$\boxed{\text{Environmental Impact}} = \boxed{\text{Population Size}} \times \boxed{\text{Consumption per Head of Population}} \times \boxed{\text{Environmental Impact per Unit of Consumption}}$$

An increase in any of the three factors that contribute to this equation will increase the pressure on the natural environment caused by human beings, unless there is a corresponding reduction in one or both of the other factors. Some aspects of our environmental impact (such as disturbance to wildlife from recreational use of local natural greenspaces, or building houses on floodplains) will be greatest close to where we live, so they will be felt most acutely in places with a high population density.

To reduce our environmental impact, we must all play our part in:

- reducing the harmful environmental impacts of the goods and services that we consume;
- reducing the amount we consume; and
- stabilizing the population of the UK;
- helping nature's recovery by investing to create Living Landscapes and secure Living Seas that will help to provide for the future needs of society and the economy.

Conclusion

The Wildlife Trusts will work to inspire people and lead communities to value and take action for nature. As part of this, we will play our part in raising awareness and educating people about the impact of their consumption, what they consume, and the consequences of population growth for the natural world on which we all depend. We will do this without passing judgment and in the context of the equation above.

¹ http://webarchive.nationalarchives.gov.uk/20110311100922/http://www.rcep.org.uk/reports/29-demographics/documents/Demography_final_report.pdf

The Environmental Impact of People

The Wildlife Trusts recognise nature's intrinsic worth; we love nature for what it is; we appreciate the myriad useful things that it does for us and humanity's total dependence on it for our health, wealth and wellbeing. We are working to enable nature to recover, by creating Living Landscapes and securing Living Seas. They are the foundation of a healthy and happy society. They are of vital importance to both wildlife and people.

Ultimately, a healthy natural environment is the foundation to our society and economy. We are entirely dependent on it for our health, happiness, wealth and wellbeing.

The part of the natural environment that provides the goods and services that fulfill our needs is widely known as our 'natural capital'. It provides us with the food, water and air that are essential for life and with the minerals and raw materials for our industry and consumption. Less obviously, it provides the processes that purify air and water, and which sequester or break down wastes. It is also in our environment where we find recreation, health and solace, and in which our culture finds its roots and sense of place.

When human beings live wisely, we nurture the natural environment on which we depend, investing in it to enable it to remain healthy – for us and future generations. We work to avoid environmental impacts that deplete our natural capital; impacts that undermine the health of the natural environment and reduce its ability to fulfill our needs. We invest in our natural capital to keep it healthy and productive.

To date, however, nature has been seriously damaged by human beings – caused by a combination of increasing population and increasing consumption of natural resources in ways that deplete the Earth's stock of natural capital – in local places near to our homes, as well as in distant parts of the Globe². Since 1975, the world's human population has been placing demands on the Earth's natural environment that are beyond nature's ability to supply sustainably. We have been living off our natural capital³.

In 2008, on average each person on Earth required 2.7 hectares (ha) of average land⁴ to provide sustainably for all their annual lifestyle needs, at current consumption rates and patterns⁵. On average, only 1.8 ha was available to each of them. In a developed country like the UK, our *per capita* consumption is very high (we each require 4.7 global hectares {gha} to fulfill the demands of our lifestyles) and the environmental impact of that consumption goes far beyond our borders (only 1.3 gha of this productive global land area is available to each of us within the UK)⁶. We are net importers of ecosystem services and exporters of environmental impacts. As a result, even relatively small increases in population have a disproportionately harmful impact on the global natural environment. Both increasing consumption and increasing population are continuing to place ever greater pressure on nature and to cause increasing damage to the natural world – within the UK and further afield.

² For example: [State of Nature 2013](#). RSPB, with 24 other nature conservation organizations.

[UK National Ecosystem Assessment: Understanding Nature's Value to Society](#). UNEP-WCMC, 2011.
[What Has Nature Ever Done For Us? How Money Really Does Grow on Trees](#). Tony Juniper, 2013. Profile Books. London.

³ [What Has Nature Ever Done For Us? How Money Really Does Grow on Trees](#). Tony Juniper, 2013. Profile Books. London.

⁴ Both humanity's 'Ecological Footprint' (our total environmental impact) and the Earth's 'biocapacity' (its ability to provide us with goods and services) are expressed in a common unit called a global hectare (gha), where 1 gha represents a biologically productive hectare with world average productivity. In 2008, the Earth's total biocapacity was 12.0 billion gha, or 1.8 gha per person, while humanity's Ecological Footprint was 18.2 billion gha, or 2.7 gha per person. This discrepancy means it would take 1.5 years for the Earth to fully regenerate the renewable resources that people used in one year. See footnote 5, below.

⁵ [Living Planet Report 2012](#): Biodiversity, Biocapacity and Better choices. WWF International, Gland.

⁶ See footnote 5, above.

People in developing countries understandably aspire to standards of living and lifestyles (and consequently levels of consumption) similar to ours, compounding the growing environmental impacts of their increasing populations. It is therefore important for the UK to demonstrate leadership in our attitude to both population growth and consumption – to demonstrate a better alternative to past trends and current practice... a development path that enables stable populations to live healthy, happy and fulfilled lives within productive economies that are based on low levels of consumption and the provision of goods and services that have small environmental impacts.

Population Change & the Natural Environment

The human population of the Earth has passed 7 billion and is expected to reach 9.3 billion by 2050⁷. It is growing at a rate of almost 230,000 people every day⁸. Increasing numbers of people will inevitably place greater pressures on the natural environment that ultimately provides humanity with everything on which it depends. A combination of increasing population and increasing prosperity (leading to greater consumption) makes a worrying cocktail that will have significant implications for the natural environment and its ability to support the human population.

In the UK, population exploded during the 19th Century, largely as a result of improving public health measures (such as improved sanitation), better medicine and better medical care. It ran very closely in parallel with increasing industrialisation and urbanisation. In 1801 the total population of England and Wales was 8.9 million. By 1901, it had more than trebled, to 32.5 million⁹. The Century saw a significant fall in death rates – particularly amongst the young – leading to a significant growth in both population and overall fertility. While the UK has gone through this explosive period of population growth, and our rate of growth is not continuing to increase exponentially, this is currently underway in many developing parts of the world – linked to their own processes of industrialization, urbanization, increasing affluence and improving public health.

The population of the UK has grown more steadily in recent years and this trend is projected to continue. Figures published by the Office for National Statistics (ONS) in June 2010 show that the resident population of the UK was 61.8 million in mid-2009, an increase of 394,000 (or 0.6%) on the previous year¹⁰. According to the same publication, in the eight years from 2001, the population increased by an average of 0.6% per year, compared with 0.3% per year between 1991 and 2001, and 0.2% per year between 1981 and 1991.

According to the 2011 census, the population of the UK at the time was 63.2 million – 4.1 million (7%) higher than in 2001¹¹. This is expected to continue to rise in the immediate future, at rates moderately higher than those experienced in the late 20th Century. In 2011, the 29th report of the Royal Commission on Environmental Pollution addressed the issue of demographic change and the environment. Using figures available to it at the time, the Commission indicated that it expected an increase of more than 4 million people in the period to 2018 and an increase from 61.4 million people in 2008 to 71.6 million in 2033¹².

⁷ UN 2010. World Population Prospects, the 2010 Revision. Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat <http://esa.un.org/unpd/wpp/index.htm>.

⁸ Ottaway, R. & G. Hutchinson (2011): Sex, Ideology, Religion. Ten Myths About World Population Growth.

⁹ Law, C.M. (1967). *The growth of urban population in England and Wales, 1801-1911*. Trans. Inst. Brit. Geogr. **41**, p. 141. Cited in Lawton, R. (1978). *Census data for urban areas*. In R. Lawton (Ed.), *The Census and Social Structure* (pp. 82-145). London: Frank Cass.

¹⁰ Office for National Statistics (ONS) (2010). Statistical Bulletin: Population Estimates – Mid-2009. June 2010. Available at: <http://www.statistics.gov.uk/pdfdir/pop0610.pdf>. Accessed 11 October 2010.

¹¹ <http://www.ons.gov.uk/ons/rel/census/2011-census/population-and-household-estimates-for-the-united-kingdom/index.html>

¹² http://webarchive.nationalarchives.gov.uk/20110311100922/http://www.rcep.org.uk/reports/29-demographics/documents/Demography_final_report.pdf

In addition to the UK's population growing in absolute terms, it is changing in distribution and in character.

- Since the 1950's, as well as the total UK population growing, the proportion of the UK population living in rural situations has decreased, while the proportion living in urban areas has increased. In 1950, 84% of UK residents lived in urban areas. By 1995 almost 90 per cent of people in Britain lived in urban areas and just over half the population were resident in just 66 urban areas with populations of 100,000 or more¹³.
- There has been a significant increase in the number of people over 65 years of age, with a particular increase in the proportion of people over 85 years old. This is expected to continue in future.
- While the population has become older, the average age at which people start to have children has also increased – increasing the age difference between generations (the spread of generations).
- There has been, and continues to be, an increase in the number of households – in particular the number of one-person households. It is expected that the number of households will increase from 21.5 million in 2006 to 27.8 million in 2031.
- The population is changing in different ways and at different rates in different parts of the UK. Particular areas are projected to grow disproportionately compared to others over the next few decades, but with sparse, and even declining, populations in other places, particularly in some remote areas. The largest increases are likely to be in regions that are already densely populated, such as London and the South East of England¹⁴.

As the UK's population changes, it will have implications for the natural environment:

- as it grows, it will place more demands on nature and will cause increasing damage to it;
- as it becomes more urban, it will risk society as a whole becoming more disconnected from nature, and reducing understanding of the value of nature within society. Urbanisation is also associated with increasing affluence, consumption and *per capita* environmental impact;
- as people live in smaller households, they will need more homes, placing greater pressures on land and other natural resources;
- in those places where population is declining, it will bring changes in local economies and in land use;
- where the population is aging (which is more rapid in rural areas than in towns and cities), it will have implications for the management and use of the countryside through such things as the reducing availability of physically fit young people to undertake beneficial land management tasks and changes in the way public services and related expenditure are prioritized in these areas.

In particular, England is already one of the most densely populated countries on Earth, and its population is growing¹⁵. Here, the global environmental impacts of an increasing population are accompanied by very significant direct impacts on the natural environment within our own country and in and around the communities where we live.

¹³ <http://www.ons.gov.uk/ons/rel/population-trends-rd/population-trends/no--91--spring-1998/index.html>

¹⁴ http://webarchive.nationalarchives.gov.uk/20110311100922/http://www.rcep.org.uk/reports/29-demographics/documents/Demography_final_report.pdf

¹⁵ In 2011, the population of England was 53 million – the largest English population ever recorded. Between 2001 and 2011, it increased by 3.5 million, from 49.5 million: an increase of 7.1%. This was the largest growth in English population during any ten year period since the first census in 1801. See footnote 11, above.

London and the South East of England stand out as parts of the country where high levels of consumption, a large existing population and a high rate of population growth combine to paint a worrying picture for the ability of the local natural environment to sustain the needs of the population and economy in future. Here, more than anywhere (though not uniquely), there is a need to recognise the vital role of nature in providing for the needs of the human population. Development and investment need to contribute to a reduction in the *per capita* environmental impact of the human population and to help nature's recovery – to strengthen our natural capital.

In places where population density is very high (typically highly urbanized areas), the demands of the local population will typically exceed the local environment's capacity to fulfil them – often quite considerably. Air conditioning, engineered flood defenses, supermarkets, roads, sewers, the electricity grid and other aspects of modern life enable us to receive the goods and services that we want and need while removing many of the associated environmental impacts to some more remote location – either exported to another part of the globe (such as Russian or Canadian peat bogs absorbing some of our carbon emissions), or to another part of the country (such as the Welsh mountains supplying clean water and regulating river flows on behalf of a significant part of England's West Midlands).

Most of society's demands on nature result from urban populations (where the vast majority of people live, and where the capacity of the local environment to supply all their needs and wants is significantly constrained, because of high population density). Because of this, it will be particularly important in future both to influence the consumption patterns of urban populations (to reduce their environmental impact) and to increase the capacity of urban areas to provide ecosystem goods and services local to the source of the demand.

Well designed and managed urban environments within which nature is proactively encouraged, which enable natural processes to function and that support low consumption lifestyles can play a significant part in managing humanity's impacts on the natural environment. Nature's recovery in and around urban areas – the creation of Living Landscapes where people live – will be particularly important.

As well as changes in population size, density and distribution, considerable changes are taking place in the way people live their lives – how much they consume, how much (and how) they travel, how many (and what sort of) material possessions they expect to own. Over the 40 years prior to 2011, the UK population grew by about 10%, whilst national income more than doubled¹⁶ – with a related impact on associated consumption. During a recent period when the UK population increased by 4%, the ownership of cars went up by 30%¹⁷. These changes and others like them can have very significant implications for our total environmental impact, irrespective of total population size.

The more people there are the greater society's need will be, for the goods and services that nature provides; the more urgent the need to create Living Landscapes and secure Living Seas. Ironically, a larger population will place more demands on the natural environment and make it more difficult for nature to recover; more difficult for Living Landscapes and Living Seas to become a reality.

Only if we consume less, make choices that reduce the environmental impacts of our consumption, and invest more in nature's recovery, will we be able to reduce our total negative impact on the natural environment, at the same time as increasing our population.

¹⁶ http://webarchive.nationalarchives.gov.uk/20110311100922/http://www.rcep.org.uk/reports/29-demographics/documents/Demography_final_report.pdf

¹⁷ See footnote 16, above.

Even if we succeed in reducing our total population, but some of the other demographic trends that are happening in the UK continue (such as the net flow of people from the North and West of the country to the South and East), we will still face many complex environmental challenges.

Even a reduction in population may bring no net reduction in our negative impact on the natural environment, if the environmental impact of the goods and services that we consume goes up.

Even so, it is clear that an increasing population will only make our mission harder to achieve and so is not in itself desirable.

12th August 2013