

# Population Matters' response to the Domestic Implementation of the Sustainable Development Goals (SDGs) Inquiry of the Environmental Audit Committee

## About Population Matters

*Population Matters is a UK-based charity that addresses population size and its effects on environmental sustainability. We see population growth as a major contributor to environmental degradation, conflicts, migration and many other problems. We conduct research, inform the public and advocate policies that promote smaller and thus more sustainable families.*

## Question to which we are responding

Population Matters is responding to the following question:

1. *What are the potential costs, benefits and opportunities to the UK of delivering the Goals domestically?*

## Summary of our response

- The potential costs of delivering the SDGs domestically will be influenced by the way in which the UK's population size changes over time.
- The UK currently faces population-related challenges that will be exacerbated by further population growth.
- These challenges must be overcome to implement the SDGs domestically.
- Therefore, the Government should consider population stabilisation policies to enable the successful implementation of the SDGs.

# What are the potential costs, benefits and opportunities to the UK of delivering the Goals domestically?

We believe that the potential costs of delivering the SDGs domestically will be influenced by the way in which the UK's population size changes over time. The reason for this is simple: the SDGs must be delivered for each individual in society. The more people there are, the more will have to happen to achieve that.

## UK population size

The UK's population size has risen from 52.3 million in 1960, to 64.4 million in 2014.<sup>1</sup> It is currently considered probable that it will pass 70 million by 2027. In spite of this, multiple projection variants have been released by the Office for National Statistics in which different developments of the variables 'fertility', 'life expectancy' and 'net migration' are considered.<sup>2</sup> The different projections illustrate clearly that, while changes to one component of population growth can make a big difference, ultimately all must be tackled to stabilise growth.

## Population size and the SDGs

When implemented properly, the 17 SDGs should guarantee a sustainable society in which all enjoy good health and well-being. Yet, the UK currently faces serious population-related challenges that will make it difficult to fully incorporate the SDGs by 2030. The following are examples of this:

### *SDG 1: No poverty*

Compared to most other industrialised countries, the UK has historically had a higher incidence of child poverty.<sup>3</sup> In 2013/14 it was estimated that 2.3 million UK children live in relative poverty.<sup>4</sup> The Institute for Fiscal Studies predicts that 4.3 million children will live in relative poverty by 2020.<sup>5</sup> Of the children currently living in poverty, 35 per cent live in families with three or more children.<sup>6</sup>

The costs of childcare and housing comprise the largest part of families' budgets.<sup>7</sup> Since 2003, childcare costs have increased by 78 per cent, even though the UK only experienced an inflation rate of 45 per cent.<sup>8</sup> Parents can avoid some of these costs by having fewer children that require external childcare facilities. Moreover, the UK faces a national housing crisis. While there is a demand of 240,000 new houses per year, only 120,000 properties are built annually.<sup>9</sup> Housing prices are largely dependent on ratios of demand. The higher the demand, the higher the prices. Population growth triggers demand for housing.

### *SDG 3: Good health and well-being*

In order to achieve good health for all UK citizens, the NHS must function well. Population growth and longevity, caused by improved medical knowledge, place an increasing strain on the NHS.<sup>10</sup> In recent years the NHS's expenditure has increased rapidly: in 2003-04 it spent £64 billion, but by 2014-15 this had almost doubled to £113 billion.<sup>11</sup> It has been estimated that the NHS could face a funding gap of £30 billion by 2021. Productivity improvements could reduce this deficit to £22 billion.<sup>12</sup> To overcome the gap entirely and maintain service level, the NHS would at least need an additional £8 billion of funding per year.<sup>13</sup> The more population grows, the bigger the strain the NHS will experience.

### *SDG 4: Quality education*

UK schools currently struggle to meet demand. A shortfall of 63,000 primary school places was predicted across the UK in 2014, and around 100,000 students missed out on their first choice of secondary school in 2016.<sup>14</sup> As numbers of pupils has increased, the number of schools has decreased. Thirty schools closed between 2014 and 2015.<sup>15</sup> It was predicted in 2013 that UK will, on average, see its school population increase by 8 per cent by 2016-17, while the London school population faces a growth rate of 17 per cent.<sup>16</sup> A recent baby boom and net inward migration of women of childbearing age are causing this increase.<sup>17</sup> The more children there are in need of education, the more will have to be invested in education to maintain quality.

Building new schools is very expensive. London boroughs had £576 million to spend on building projects between 2013 and 2015, but they still faced a shortfall of £1.04 billion if they were to guarantee each pupil in London a permanent school place in 2015-16.<sup>18</sup> Moreover, schools are being forced to cut spending in areas including essential school maintenance and teaching materials.<sup>19</sup> While pupil numbers keep growing, spending per pupil is predicted to reduce by 8 per cent between 2015 and 2020.<sup>20</sup>

### *SDG 7: Affordable and clean energy*

The UK consumes less energy today than it did in 1970, in spite of its population growing by more than nine million people.<sup>21</sup> The Department of Energy and Climate Change (DECC) predicts that, while the UK's population could increase to over 70 million by 2030, the country as a whole will consume the same amount of energy by then.<sup>22</sup> Yet, the released graph shows a curved future projection line after 2022.<sup>23</sup>

The UK has historically relied predominantly on fossil fuels and nuclear energy, but is now focusing increasingly on renewable energy. Between 2014 and 2015, renewable electricity generation increased by 29 per cent.<sup>24</sup> The major challenge that renewable energy faces is that it is difficult to produce as much energy as fossil fuel generators using renewable energy sources. The development of generators and the improvement of technology is also costly. The more population grows, the quicker renewable technologies must be developed, and the more costs will be incurred.

### *SDG 12: Responsible consumption and production*

#### **Food**

Although the UK has a successful agricultural industry — it contributes around eight per cent to the national GDP — the country is not self-sufficient in food production.<sup>25</sup> It currently imports approximately 40 per cent of all consumed food, and this proportion is rising. Around two-thirds of imports come from elsewhere in the European Union.<sup>26</sup> The more population size grows, the more the UK will likely rely on food imports.

#### **Water**

Water consumption in the UK has grown by an average of one per cent per year since 1930.<sup>27</sup> Currently, people use 150 litres of water, on average, per day.<sup>28</sup> If all the water used in the production process of other goods we consume daily is taken into consideration, the average person consumes 3,400 litres a day.<sup>29</sup> It is forecast that water demand in England and Wales could grow by 35 per cent by 2050.<sup>30</sup> This is problematic: it is already estimated that between 1,100 and 3,300

megalitres are over-abstracted in the UK every day. Problems stemming from this cost the government between £3.7 billion and £27 billion a year.<sup>31</sup>

Though sustainable use of water and improved technology could reduce consumption per capita, ultimately this will not be sufficient. A reduction of the UK's water consumption by between 1.1 and 3.3 billion litres a day — the amount of water that is currently over-abstracted — would require between five and 20.5 million households to stop using water altogether.<sup>32</sup> This suggests that a shrinking population is the only real solution to water scarcity.

## Waste

England produced 22.6 million tonnes of waste in 2012-13. This equates to 423kg of waste per resident. Of this, 183kg, or 43.2 per cent, was recycled.<sup>33</sup> Household waste accounts for 14 per cent of the total waste accumulation in the UK.<sup>34</sup> According to current predictions, the UK will produce between 11.8 and 13.6 million tonnes of food waste in 2025, compared to 11.6 million tonnes in 2015.<sup>35</sup> This increase can be explained as follows:

- Extreme food waste reduction is no longer feasible with ease, because the simplest ways of achieving reductions have already been realised.<sup>36</sup>
- Population growth will mean that more people will be producing waste. Hence, even if the amount of waste per capita reduces, the sum of waste accumulation would increase.<sup>37</sup>

Sewage waste will pose another health and financial challenge. Currently, London's sewers overflow on a weekly basis, flushing around 39 million tonnes of untreated sewage into the Thames every year.<sup>38</sup>

- In the UK, 347,000 km of sewers collect over 11 billion litres of waste water every day.<sup>39</sup>
- The expected increase in the UK population will provide water companies with a challenge, as they will need to expand their facilities to provide all households with access to the sewage system.<sup>40</sup>

## *SDG 13: Climate action*

Human activity has an adverse effect on the environment. Pollution is not only harmful for the health of humans and wildlife, it is also seen as a trigger for climate change. Climate change in turn exposes the UK to extreme weather patterns, including flooding and droughts. The average temperature in the UK has risen by 1°C in the past 100 years, and average summer temperatures are projected to rise by 2°C by the 2040s. Not only will this affect ecosystems, it will also impact food production.<sup>41</sup>

The UK is dedicated to reducing its carbon emissions. It is projected that the UK will manage to achieve the set carbon reduction targets between 2013 and 2022, yet it is feared that it will not successfully meet its targets between 2023 and 2027 if no further action is taken. This is blamed largely on an increasing number of households and growing transport demand — both of which will be exacerbated by population growth.<sup>42</sup>

## Conclusion

Population growth exacerbates many existing challenges. These challenges must be overcome to successfully implement the SDGs domestically by 2030. Consequently, we believe that population

growth should no longer be approached as a fixed premise. This means that the Government should start promoting policies that aim at population stabilisation.

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<sup>1</sup> Overview of the UK Population. (n.d.). Retrieved May 24, 2016, from [http://www.ons.gov.uk/ons/dcp171776\\_422383.pdf](http://www.ons.gov.uk/ons/dcp171776_422383.pdf)

<sup>2</sup> UK population 'to top 70 million in 12 years' (2015). Retrieved May 24, 2016, from <http://www.bbc.co.uk/news/uk-34666382>

<sup>3</sup> ONS. (2010). A profile of Child Poverty. Retrieved August 17, 2016, from <http://webcache.googleusercontent.com/search?q=cache:M6MXC8MlqPIJ:www.ons.gov.uk/ons/rel/regional-trends/painting-pictures-of-place-series---topic-profiles/child-poverty-topic-profile/child-poverty-topic-profile---2010.pdf&cd=1&hl=en&ct=clnk&gl=uk>

<sup>4</sup> ONS. (2015). Households Below Average Income. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf)

<sup>5</sup> Child Poverty Action Group. (n.d.). A PROGRAMME FOR GOVERNMENT 2015–2020. Retrieved August 17, 2016, from [http://cpag.org.uk/sites/default/files/Programme\\_for\\_government\\_2015\\_2020\\_CPAG.pdf](http://cpag.org.uk/sites/default/files/Programme_for_government_2015_2020_CPAG.pdf)

<sup>6</sup> ONS. (2015). Households Below Average Income. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf)

<sup>7</sup> Child Poverty Action Group. (n.d.). Retrieved August 17, 2016, from <http://www.cpag.org.uk/child-poverty-facts-and-figures>

<sup>8</sup> Collinson, P. (2016). Cost of raising children in UK higher than ever. Retrieved August 17, 2016, from <http://www.theguardian.com/lifeandstyle/2016/feb/16/cost-of-raising-children-in-uk-higher-than-ever>

<sup>9</sup> Population and housing. (2015). Retrieved August 16, 2016, from [https://www.populationmatters.org/documents/housing\\_population.pdf](https://www.populationmatters.org/documents/housing_population.pdf)

<sup>10</sup> (n.d.). Retrieved August 17, 2016, from <http://www.independent.co.uk/life-style/health-and-families/health-news/the-nhs-timebomb-what-s-wrong-with-the-nhs-the-diagnosis-9775930.html>

<sup>11</sup> Key statistics on the NHS. (n.d.). Retrieved August 17, 2016, from <http://www.nhsconfed.org/resources/key-statistics-on-the-nhs>

<sup>12</sup> How much money does the NHS need? (n.d.). Retrieved August 17, 2016, from <http://www.kingsfund.org.uk/projects/verdict/how-much-money-does-nhs-need>

<sup>13</sup> How much money does the NHS need? (n.d.). Retrieved August 17, 2016, from <http://www.kingsfund.org.uk/projects/verdict/how-much-money-does-nhs-need>

<sup>14</sup> Nelson, N. (2015). Primary school misery for parents as 63,000 place shortfall predicted - Mirror Online. Retrieved August 17, 2016, from <http://www.mirror.co.uk/news/uk-news/primary-school-misery-parents-63000-7043777>

<sup>15</sup> Department for Education. (2015). Schools, pupils and their characteristics: January 2015. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/433680/SFR16\\_2015\\_Main\\_Text.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/433680/SFR16_2015_Main_Text.pdf)

<sup>16</sup> Adams, R. (2013). London schools set to feel strain of population growth. Retrieved August 17, 2016, from <http://www.theguardian.com/education/2013/apr/23/london-schools-population-growth>

<sup>17</sup> Adams, R. (2013). London schools set to feel strain of population growth. Retrieved August 17, 2016, from <http://www.theguardian.com/education/2013/apr/23/london-schools-population-growth>

<sup>18</sup> Adams, R. (2013). London schools set to feel strain of population growth. Retrieved August 17, 2016, from <http://www.theguardian.com/education/2013/apr/23/london-schools-population-growth>

<sup>19</sup> Sellgren, K. (2015). Schools close to funding breaking point, warn heads. Retrieved August 17, 2016, from <http://www.bbc.co.uk/news/education-34712887>

<sup>20</sup> Sellgren, K. (2015). Schools close to funding breaking point, warn heads. Retrieved August 17, 2016, from <http://www.bbc.co.uk/news/education-34712887>

<sup>21</sup> U.K. Population (LIVE). (n.d.). Retrieved June 22, 2016, from <http://www.worldometers.info/world-population/uk-population>

<sup>22</sup> Anderson, R. (2013). UK energy mix: Where does our power come from? Retrieved June 22, 2016, from <http://www.bbc.co.uk/news/business-24823641>

<sup>23</sup> Anderson, R. (2013). UK energy mix: Where does our power come from? Retrieved August 17, 2016, from <http://www.bbc.co.uk/news/business-24823641>

<sup>24</sup> Department of Energy and Climate Change. (2016). UK Energy Statistics, 2015 & Q4 2015. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/513244/Press\\_Notice\\_March\\_2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/513244/Press_Notice_March_2016.pdf)

<sup>25</sup> DEFRA. (2014). Food Statistics Pocketbook 2014. Retrieved July 15, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/423616/foodpocketbook-2014report-23apr15.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/423616/foodpocketbook-2014report-23apr15.pdf)

<sup>26</sup> Cabinet Office. (2008). Food Matters Towards a Strategy for the 21st Century. Retrieved July 15, 2016, from [http://www.ifr.ac.uk/waste/Reports/food\\_matters\\_Towards\\_a\\_Strategy\\_for\\_the\\_21st\\_Century.pdf](http://www.ifr.ac.uk/waste/Reports/food_matters_Towards_a_Strategy_for_the_21st_Century.pdf)

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- <sup>27</sup> Waterwise. (2012). Water – The Facts. Retrieved August 17, 2016, from [http://www.waterwise.org.uk/data/resources/25/Water\\_factsheet\\_2012.pdf](http://www.waterwise.org.uk/data/resources/25/Water_factsheet_2012.pdf)
- <sup>28</sup> Claim your free water efficiency device Help save money on your metered water bill. (n.d.). Retrieved August 17, 2016, from <http://www.cambridge-water.co.uk/customers/how-much-water-do-you-use>
- <sup>29</sup> Waterwise. (2012). Water – The Facts. Retrieved August 17, 2016, from [http://www.waterwise.org.uk/data/resources/25/Water\\_factsheet\\_2012.pdf](http://www.waterwise.org.uk/data/resources/25/Water_factsheet_2012.pdf)
- <sup>30</sup> Less, S. (2011). Untapped Potential. Retrieved June 27, 2016, from [http://www.policyexchange.org.uk/images/publications/untapped\\_potential\\_-\\_jul\\_11.pdf](http://www.policyexchange.org.uk/images/publications/untapped_potential_-_jul_11.pdf)
- <sup>31</sup> Less, S. (2011). Untapped Potential. Retrieved June 27, 2016, from [http://www.policyexchange.org.uk/images/publications/untapped\\_potential\\_-\\_jul\\_11.pdf](http://www.policyexchange.org.uk/images/publications/untapped_potential_-_jul_11.pdf)
- <sup>32</sup> Davies, N. (2015). Britain's water crisis | Nick Davies. Retrieved August 17, 2016, from <http://www.theguardian.com/environment/2015/oct/08/are-we-killing-our-rivers>
- <sup>33</sup> DEFRA. (2013). Waste Management Plan for England. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/265810/pb14100-waste-management-plan-20131213.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14100-waste-management-plan-20131213.pdf)
- <sup>34</sup> DEFRA. (2015). UK Statistics on Waste. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/487916/UK\\_Statistics\\_on\\_Waste\\_statistical\\_notice\\_15\\_12\\_2015\\_update\\_f2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487916/UK_Statistics_on_Waste_statistical_notice_15_12_2015_update_f2.pdf)
- <sup>35</sup> Technical report templates. (n.d.). Retrieved August 17, 2016, from [http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20\(FINAL\)\\_0.pdf](http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20(FINAL)_0.pdf)
- <sup>36</sup> Technical report templates. (n.d.). Retrieved August 17, 2016, from [http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20\(FINAL\)\\_0.pdf](http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20(FINAL)_0.pdf)
- <sup>37</sup> Technical report templates. (n.d.). Retrieved August 17, 2016, from [http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20\(FINAL\)\\_0.pdf](http://webcache.googleusercontent.com/search?q=cache:o8RikJvJgVQJ:www.wrap.org.uk/sites/files/wrap/UK%20food%20waste%20-%20Historical%20and%20future%20changes%20(FINAL)_0.pdf)
- <sup>38</sup> Bateman, T. (2013). Does London need a £4.2bn 'super-sewer'? Retrieved August 17, 2016, from <http://www.bbc.co.uk/news/uk-england-london-24046324>
- <sup>39</sup> DEFRA. (n.d.). Sewage Treatment in the UK. Retrieved August 17, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69582/pb6655-uk-sewage-treatment-020424.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69582/pb6655-uk-sewage-treatment-020424.pdf)
- <sup>40</sup> WaterUK. (n.d.). Improving resilience. Retrieved August 17, 2016, from <http://www.water.org.uk/policy/improving-resilience>
- <sup>41</sup> Climate change explained. (n.d.). Retrieved June 23, 2016, from <https://www.gov.uk/guidance/climate-change-explained>
- <sup>42</sup> Updated energy and emissions projections 2015. (2015). Retrieved June 23, 2016, from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/501292/eepReport2015\\_160205.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/501292/eepReport2015_160205.pdf)