

Royal Society submission to the UK All-Party Parliamentary Group on Population, Development and Reproductive Health inquiry into population dynamics in the post-2015 world

1. The Royal Society welcomes the opportunity to respond to the UK All-Party Parliamentary Group on Population, Development and Reproductive Health inquiry. This response was developed through consultation with Fellows and overseen by Sir John Skehel FRS, Vice-President and Biological Secretary of the Society.

Key points

- **Societies around the world face a number of challenges including the distribution of limited resources, inequality and risks from climate change.** These are all influenced by population growth, migration, urbanisation and changes in age structure.
 - **Action must be taken to address these challenges and place the world on a sustainable path.** This will need to be taken at a local, national and international level involving both the private and public sector.
 - **Population and the environment are inseparable factors in sustainable development.** Sustainable development policies should not treat population and environment as separate issues.
 - **Action should be taken to continue the downward trajectory of fertility rates including education, investment in young women, improved reproductive health and voluntary family planning programmes.** These urgently require political leadership and financial commitment.
 - **Future changes in demography across the world are expected to significantly increase the number of people exposed to extreme weather and their vulnerability to it.** Action must be taken to better understand people's vulnerabilities changing weather patterns around the world and secure plans to reduce risks and increase resilience.
 - **Addressing population growth is key but it isn't sufficient to provide a sustainable future.** The most developed and the emerging economies must stabilise and then reduce material consumption levels. Planning will be important to soften the impact of changing populations on societies and the environment.
 - **The agreement of the 2015 Sustainable Development Goals this year offers an opportunity to recognise these issues and align action with other global policy frameworks.** The Goals should include action on poverty, the promotion of family planning (FP) and sexual and reproductive health and rights (SRHR) and emphasise the role of the natural environment for increased resilience of societies around the world
2. The Society has recently produced two reports that are of relevance to this inquiry.
 3. Published in 2012, *People and the Planet*¹ chaired by Sir John Sulston FRS attempts to provide an overview of the impacts of human population and consumption on the planet. It identifies ways to benefit from the opportunities that changes in population could bring – and how to avoid the most harmful impacts.

¹ Royal Society (2012) *People and the Planet* <https://royalsociety.org/policy/projects/people-planet/>

4. In 2014, *Resilience to Extreme Weather*² chaired by Professor Georgina Mace FRS looks at how to increase people's resilience to extreme weather around the world. This includes new mapping of global extreme weather patterns and the likely impact on people around the world in future.
5. The Society has also supported a 2012 InterAcademy Partnership statement on Population and Consumption calling for urgent and coordinated international action to address these profound challenges to humanity.³
6. **Challenges:**
These reports identify a number of global challenges that are influenced by population growth and demographic change, including:
7. **Consumption of finite resources**
Global consumptions of water, food, energy and minerals have grown rapidly in recent years, both overall and per capita. The consumption of water, food, energy and minerals is a basic need for survival, and in some parts of the world even this basic need is not being met. By contrast, a high level of consumption in some countries, in a world with finite resources, may result in the deprivation of others.
8. Consumption and demography are closely inter-twined. Every person will consume, and each additional person on the planet will add to total consumption levels. The most immediate way to reduce the negative impact of human activity on the planet however is to reduce material consumption of those who currently consume the most. Longer-term, the stabilisation of the population is essential to avoid exceeding planetary limits and further increasing poverty.
9. Demographic factors such as ageing or urbanisation can also influence consumption levels. Urbanisation can both increase consumption (eg by increased use of appliances) and decrease it (eg by shared use of public transport).
10. *People and the Planet* reviewed current trends in population and consumption and concluded that in the most developed and the emerging economies unsustainable consumption needs urgently to be addressed. It also concluded that those living in extreme poverty need more opportunities and access to greater resources to improve their standards of living and start to address the issues of good quality lives for all.
11. **Inequality**
The economic benefits and environmental degradation associated with increased consumption have not been distributed evenly around the globe and have led to inequality.
12. 1.3 billion people live in extreme poverty, on less than \$1.25 per day⁴. It is necessary to enable those in poverty to achieve an adequate standard of living, giving them the opportunity to flourish. Poverty and family size are closely linked, with the number of children people have reducing when families are brought out of poverty. Achieving adequate standards of living will

² Royal Society (2014) *Resilience to Extreme Weather* <https://royalsociety.org/policy/projects/resilience-extreme-weather/>

³ InterAcademy Partnership (2012) *Statement on Population and Consumption* <http://www.interacademies.net/10878/19191.aspx>

⁴ World Bank estimate (2012)

require focused efforts in key policy areas including economic development, education, family planning and health.

13. Increasing vulnerability of societies to extreme weather and climate change

Climate change is expected to result in changes in extreme weather, such as heatwaves, droughts and floods, that will pose increasing risks to societies around the world. Societies are not resilient to extreme weather even today. Projected changes in demography - including the age-spread of populations, urbanisation and migration - will act to significantly increase the number of people exposed to such extremes, many of them in areas that are already high in both poverty and poor health.

14. *Resilience to Extreme Weather* includes maps that combine climate predictions with population scenarios that illustrate the exposure of people living around the world to extreme weather now and in the future. The maps show that the effects are generally greater for areas where most people live and therefore may be under-reported using global average projections. In many cases these are also areas of rapid population growth and/or growth in highly vulnerable populations which result in more people being placed at risk.

15. For example, the number of over-65s is increasing; one of the groups most vulnerable to heatwaves. With current numbers, the number of heatwave exposure events⁵ this group experiences each year could increase from 0.1 billion today to almost 1 billion in 2100. If we do nothing to mitigate climate change and population growth proceeds as expected, this number could rise to 4 billion.

16. Population growth leads to increasing exposure in many regions, particularly East, West and Central Africa, India and South East Asia. It has been estimated that in Africa and Asia there could be between 100 and 200 million more people living in floodplains in urban areas in 2060 than in 2000.

17. The risks from climate change can be underestimated if no account is taken of people's exposure and vulnerability. In the absence of counteracting policy measures, human populations are likely to be growing, ageing and migrating towards urban areas leading to greater exposure to extreme weather. At the same time, those that are most vulnerable to environmental change may not be able to migrate far.

18. Addressing these challenges:

Action will need to be taken at a local, national and international level involving both the private and public sector to address these challenges and protect communities around the world.

19. Discussions of sustainable development should take into account demographic factors and the influences on them.

Population and consumption are inseparable factors in sustainable development, as demonstrated by the evidence and endorsed by the international community on several occasions. Policies may address population and consumption independently but should not treat them as separate issues.

20. Global population growth must be slowed and stabilised, but this should by no means be coercive.

Ahead of Rio +20, the world's 105 science academies published a joint statement

⁵ Heatwave Exposure Events are defined as 5 consecutive days 5°C above the summer mean daily minimum temperature

calling upon world leaders to take decisive action to address the global challenges of population and consumption⁶. This statement emphasized that the world needs to adopt a rational and evidence-based approach to addressing the issues raised by unsustainable population growth and consumption patterns, one that respects human rights and the legitimate aspirations of people and countries with low-income to improve their living standards and levels of well-being.

21. The statement highlights the importance of development strategies that help to reduce population growth by continuing the downward trajectory of fertility rates. Central to achieving this are programmes that promote education, in particular of women and girls, alongside steps to ensure that everyone has access to comprehensive reproductive health and family planning programmes. This is especially important in countries where the unmet need for contraception is high
22. The need for family planning is a fundamental health issue, important in its own right irrespective of arguments about population. Help with family planning should preferably be provided in a framework that includes education and healthcare. This issue requires substantial additional resources and policy attention from governments and international donors.
23. **Addressing population growth is key but it isn't sufficient to provide a sustainable future.** The most developed and the emerging economies must stabilise and then reduce material consumption levels through dramatic improvements in resource use efficiency, including: reducing waste; investment in sustainable resources, technologies and infrastructures; and systematically decoupling economic activity from environmental impact.
24. They also have a responsibility to develop and resource strategies to support the resilience of their populations and infrastructure. This will require a better understanding of the vulnerability of their populations and the development and implementation of policies and plans that are evidence-based.
25. Forward planning will be important to soften the impact of changing populations on societies and the environment. For example the environmental impact of an ageing society and increased urbanization can be optimized by designing more energy efficient building and public transport.
26. Migration, influenced by many factors including environmental change, can be beneficial if managed well. For countries experiencing a decline in working age, an influx of migrants can bring much needed skills and workers. Policy makers in destination countries should consider not only the impact of migration on national and regional economies but also impacts on local politics, communities and services. For origin countries, migration can also contribute to the wellbeing of populations and development strategies if it minimises brain drain and maximises returns from migrant's financial and human capital.
27. **2015 presents an opportunity to drive coordinated international action to address these challenges.** In 2015 three important global agreements will be made – the successor to the Hyogo Framework for Action, Sustainable Development Goals and future climate agreement. Together these offer an opportunity to reframe the relationship between people and the planet.

⁶ InterAcademy Partnership (2012) *Statement on Population and Consumption* <http://www.interacademies.net/10878/19191.aspx>

28. We welcome the recognition within the UN Secretary General's synthesis report on the post-2015 agenda that 'demographic trends are changing our world' and that these 'present both challenges and opportunities'.
29. The Sustainable Development Goals proposed by the Open Working Group for consideration in September 2015 should recognise that environment and population are interrelated issues. We welcome their goal to 'ensure inclusive and equitable quality education and promote life-long learning opportunities for all' and on 'empowering all women and girls'. Universal access to education and sexual and reproductive health and rights will be central to continue the downward trajectory of fertility rates. The Goals should also emphasise the importance of the natural environment to encourage steps to increase the resilience of societies around the world.
30. Progress on these issues will benefit from coordinated action. Efforts should be made to reflect these goals across international policy frameworks including Hyogo and future climate agreements, developing consistent indicators of success.

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