

# Whatever happened to sustainable development?

*Ian discusses definitions of sustainability and its visibility (or otherwise) in the current geography curriculum.*



Accompanying online materials

In this part of the twenty-first century the three key themes of geography are said to be sustainability, globalisation and equality, informed by the environmental parameters of biodiversity, climate and morphology (Dorling and Lee, 2016, p. 4). So where is sustainability in the secondary school geography curriculum, and how might we help our students to understand this concept and apply it thoughtfully to the world around them?

## Sustainability in the curriculum

The world's climate is changing at an unprecedented rate, and this is attributable in large part to human actions (IPCC, 2019). The RSPB suggests that the UK has lost significantly more biodiversity than the global average (RSPB, 2016). And we are becoming rapidly more aware of the consequences of living in the Anthropocene (Lewis and Maslin, 2018). Surely, you would think, sustainability would have a prominent place in the geography curriculum?

Yet in today's statutory geography curriculum there is surprisingly little direct reference to sustainability (Figure 1).

The rare appearances of sustainability in the current curriculum are in stark contrast to the previous versions of the National Curriculum and GCSE and A level geography specifications. The key stage 3 Programme of Study (QCA, 2007) stated 'Geography inspires pupils to become global citizens by exploring their own place in the world, their values and their responsibilities to other people, to the environment and to the sustainability of the planet' (QCA, 2007, p. 101). Environmental interaction and sustainable development was identified as one of seven key concepts, with content including '... making links between people and their environments to help understand interdependence, sustainable development and future implications' (QCA, 2007, p. 106).

**Figure 1:** Sustainability in the current geography curriculum.

Key Stage 3	GCSE	AS/A level
<b>Aims</b> To '... understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time' (DfE, 2013).	<b>Aims</b> To offer '... the opportunity for students to understand more about the world, the challenges it faces and their place within it' and to enable '... young people to be globally and environmentally informed and thoughtful, enquiring citizens' (DfE, 2014a, p. 3).	<b>Aims</b> To enable '... students to be inspired by their geographical understanding, to engage critically with real world issues and places' and '... to grow as independent thinkers and as informed and engaged citizens' (DfE, 2014b, p. 3).
<b>Specific reference to 'sustainability'</b> None.	<b>Specific reference to 'sustainability'</b> People and Environment: '... sustainable use and management' of two selected global ecosystems and of either food, energy or water resources. ( <i>ibid.</i> , p. 7).	<b>Specific reference to 'sustainability'</b> Included in the concepts relevant to the core and non-core content.
<b>Sustainability implied</b> Physical geography, relating to climate from the Ice Age to the present. Human geography, relating to economic activity, and the use of natural resources. Understand how human and physical processes interact to influence and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems.	<b>Sustainability implied</b> Natural weather hazards, climate change including human activity, urbanisation including contemporary challenges, and global economic development.	<b>Sustainability implied</b> Water and carbon cycles and their key role in supporting life on Earth and carbon sequestration in oceans; global governance, including through the United Nations, to regulate the consequences of globalisation on people, places and environments; and the nature of economic, political, social and environmental interdependence.
<b>Attainment targets</b> Not included for the 2014 National Curriculum.	<b>In assessment objectives</b> AO2 requires students to '... demonstrate geographical understanding of concepts and how they are used in relation to places, environments and processes, and the inter-relationships between places, environments and processes'. AO3 requires students to '... apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues and to make judgements' (Ofqual, 2014).	<b>In assessment objectives</b> AO1 is directly relevant to studies of sustainability, requiring students to '... demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales' (Ofqual, 2015).

The aims of previous GCSEs included to ‘... develop students’ responsibilities as global citizens and recognise how they can contribute to a future that is sustainable and inclusive’ (Ofqual, 2012, p. 3), while subject content specifically referred to ‘current issues of local, national and global importance, including climate change and sustainable development’ (Ofqual, 2012, p. 4). The previous AS and A level subject aims also included the development of students ‘... as global citizens who recognise the challenges of sustainability and the implications for their own and others’ lives’ (Ofqual, 2011, p. 3) and the subject content specified that students should ‘... develop a knowledge and understanding of the key concepts of place, space, diversity, interdependence, people-environment interaction, the processes associated with these, and change over time’ (Ofqual, 2011, p. 4). Teachers might wonder why sustainability is hidden away in the current geography curriculum?

## What is ‘sustainability’?

Open almost any school geography textbook and you would find the same definition: ‘Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED, 1987, p. 43). This enduring definition derives from the United Nations’ 1983 World Commission on Environment and Development and its famous Brundtland Report (WCED, 1987). However, most school textbooks ignore the subsequent metamorphosis of the term, and the continuum of thought that has emerged regarding the vigour of sustainability efforts by governments, businesses, public and voluntary sector organisations as well as individuals. Students need this information to be able to understand the concept of sustainability and to be able to thoughtfully evaluate their own responses to the problem.

Underpinning the Brundtland definition were two key concepts: the ‘needs’ of the world’s poor and the limitations of the environment’s capacity to meet present and future needs. Impetus in the UN led to the 1992 Rio Earth Summit, and amongst its outcomes was the Agenda 21 agreement: an action plan for sustainable development (UNCED, 1992). Agenda 21’s objectives included bringing together environmental, social and economic concerns and it encouraged the participation of all citizens – from national governments to local communities – in implementing sustainable development.

180 nations committed to Agenda 21, but their interpretations of sustainable development vary.

There have been debates over the degree to which natural capital is substitutable and whether sustained economic growth is the best way to meet human needs. What has emerged is a spectrum of sustainability (Figure 2).

Spectrum of sustainability		
Weak	Moderate	Strong
<ul style="list-style-type: none"> <li>• Total capital needs to be sustained.</li> <li>• Allows substitution between types of capital.</li> <li>• Cost-benefit analysis might be used to measure this strategy and environment management agencies are advocated.</li> </ul> <p>This view is said to be seen in government and business policies in many countries (Beder, 2011, p. 140).</p>	<p>Seeks to both expand stocks of resources and better balance resources and demands (Williams and Millington, 2004, p. 100).</p>	<ul style="list-style-type: none"> <li>• Rejects the concept that natural capital is substitutable.</li> <li>• Believes there is uncertainty about how natural capital operates within ecological systems so it should be protected.</li> </ul> <p>Supports direct regulation (Pearce, 1993).</p>

Probably the most deeply embedded idea in contemporary political thinking is that the key to meeting human needs is economic growth. The assumption is that economic growth ‘trickles down’, so benefitting both rich and poor, and that growth does not necessarily degrade the natural resources on which economies and the poor rely (Fitzroy and Smith, 2004). However, economic analysis of wealth formation and distribution shows growing inequalities: ‘trickle up’ has accelerated in recent years and the world’s richest hold an increasing share of all wealth (Dorling and Lee, 2016, p. 65). The top 1 % of earners in the UK now account for 12.2 % of income before tax, up from around 10 % in 1970s (Smith, 2019).

Snedden *et al.* (2006) list the most common objectives for sustainable development:

1. To conserve, protect and enhance Earth’s natural capital and ecosystems for current and future generations
2. The integration of economic, social and environmental issues in decision making
3. A participatory approach to decision making and policy implementation, involving national governments, other organisations (including local government) and local communities
4. To ensure the basic needs of people and their well-being are met in the short and long term
5. To reduce inequalities in living standards, both within and between societies.

**Figure 2:** A spectrum of sustainability (after Dobson, 1996).

### Some terms from the sustainability discourse

**Total capital** for future generations is the sum of:

- **human capital** (skills, knowledge, technology, culture)
- **human-made capital** (buildings, machinery)
- **natural capital** (environmental features, e.g. water, air, soil, rocks, plants, etc).

**Substitution** between different types of capital means that any depletion of finite reserves is accompanied by investment in substitute resources (Pearce, 1993).

**Greenwashing** is misleading the public regarding the environmental credentials of a product, service or action (Terrachoice, 2009). See download for a description of the ‘seven sins of greenwashing’.

## Engaging with sustainability

The Brundtland definition of sustainability might be nuanced in the classroom by recognising that the concept has moved on since 1980. Students could use the five common objectives listed above, expressed in appropriate terms, to critically evaluate policies and actions. For older or faster learning students, you could add the UN's Agenda 21 action plan to the Brundtland definition, investigating the types of capital, and 'trickle down' and 'trickle up'.

To kick start this more reflective approach to sustainability five sets of information about the Cairngorms area of Scotland for student discussion and decision making are provided (Figures 1–5 in the accompanying download). Teachers will be able to source relevant materials from their own area.

Student tasks might include some or all of the following:

1. Read and discuss the information and decide whether specific policies and actions meet each of the five common objectives and so are sustainable.
2. If sustainable, decide where on a spectrum of sustainability they sit: are they weak or strong?
3. If not sustainable, decide how the policy or actions might be made more sustainable.
4. Do you need any other information to make a decision?

## References

All websites last accessed 07/07/2019.

- Beder, S. (2011) 'Environmental economics and ecological economics: the contribution of interdisciplinarity to understanding influences and effectiveness', *Environmental Conservation*, 38, 2, pp. 140–150.
- DfE (2013) 'Geography programmes of study: key stage 3', London: Department for Education. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/239087/SECONDARY\\_national\\_curriculum\\_-\\_Geography.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239087/SECONDARY_national_curriculum_-_Geography.pdf)
- DfE (2014a) *Geography: GCSE subject content*. London: Department for Education.
- DfE (2014b) *Geography: GCE AS and A level subject content*. London: Department for Education.
- Dobson, A. (1996) 'Environmental sustainability: an analysis and a typology', *Environmental Politics*, 5, 3, pp. 401–28.
- Dorling, D. and Lee, C. (2016) *Geography: Ideas in Profile*. London: Profile Books.
- Fitzroy, F. and Smith, I. (2004) 'Welfare, growth and environment: a sceptical view of *The Skeptical Environmentalist* by B. Lomborg', *Scottish Journal of Political Economy*, 52, 5, pp. 707–17.
- IPCC (2019) *The intergovernmental Panel on Climate Change reports*. New York: United Nations. Available at: [www.ipcc.ch](http://www.ipcc.ch)
- Lewis, S. and Maslin, M. (2018) *The human planet – how we created the Anthropocene*. London: Penguin Random House.
- Ofqual (2011) *GCE AS and A level subject criteria for Geography*. Coventry: Office for Qualifications and Examinations Regulation.
- Ofqual (2012) *GCSE subject criteria for Geography*. Coventry: Office for Qualifications and Examinations Regulation.
- Ofqual (2014) *GCSE assessment objectives: modern foreign languages, ancient languages, geography and history*. Available at: [www.gov.uk/government/publications/assessment-objectives-geography-history-ancient-languages-mfl/gcse-assessment-objectives-modern-foreign-languages-ancient-languages-geography-and-history#geography-assessment-objectives](http://www.gov.uk/government/publications/assessment-objectives-geography-history-ancient-languages-mfl/gcse-assessment-objectives-modern-foreign-languages-ancient-languages-geography-and-history#geography-assessment-objectives)
- Ofqual (2015) *GCE subject level conditions and requirements for Geography*. Coventry: Office for Qualifications and Examinations Regulation.
- Pearce, D. (1993) *BluePrint3: Measuring Sustainable Development*. London: Earthscan.
- QCA (2007) *Geography Programme of study for key stage 3*. London: Qualifications and Curriculum Authority.
- RSPB (2016) *State of Nature 2016*. Available at: [www.rspb.org.uk/our-work/conservation/projects/state-of-nature-reporting](http://www.rspb.org.uk/our-work/conservation/projects/state-of-nature-reporting)
- Smith, D. (2019) 'The sound of pips gently squeaking will get louder under Labour', *The Times*, London, 10 April, p. 41.
- Snedden, C., Howarth, R.E. and Norgaard, R.B. (2006) 'Sustainable development in a post-Brundtland world', *Ecological Economics*, 51, 2, pp. 253–63.
- Terrachoice (2009) *The seven sins of greenwashing*. Available at: <http://sinsofgreenwashing.com/indexd49f.pdf>
- WCED (1987) *Our common future*. Oxford: OUP.
- Williams, C. and Millington, A. (2004) 'The diverse and contested meanings of sustainable development', *The Geographical Journal*, 170, 2, pp. 99–104.

5. Consider how governments, organisations and you personally could act more sustainably in future.
6. Share your small group findings in a verbal plenary report.

Some sustainability 'thinking notes' to help make decisions about the five sets of information are summarised in Figure 6 in the download. These are not intended to be definitive but could help focus thinking on sustainable development. No single policy or action is likely to fully meet all five sustainability objectives.

## Conclusions

For students to be able to properly achieve the professed aims of their geography curriculum and the related GCSE and AS/A level assessment objectives, they need a thoughtful understanding of sustainability and a critical approach to studying it. The simplistic approach of current textbooks does not facilitate this. This article aims to give teachers a better understanding of sustainability, the means (via the references) of finding out more, and an approach to studying which will engage students and help them become informed and critical citizens. Investigating sustainable development in this way can help geography teachers make a difference to their students' lives. | **TG**

### Online resources

The five resources on sustainability, and sustainability thinking notes, can be found on the GA website. Go to [www.geography.org.uk/Journals/Teaching-Geography](http://www.geography.org.uk/Journals/Teaching-Geography) and select Autumn 2019.

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