

The Guiding Principles of Policy on Climate Change.

‘Climate change adaptation requires us to understand the risks arising from climate change and how they might impact upon the people of Wales, our communities, our places of work the length and breadth of Wales’.

We need to take action now to prepare and adapt to these changes before the full effects are felt, to ensure Wales continues to prosper’

(Welsh Government, 2019, p.1).



Climate Change

Devolution and Climate Change

‘Many aspects relating to addressing climate change are devolved matters. The Welsh Government published its Climate Change Strategy in October 2010. It has committed to reduce greenhouse gas emissions over which it has control by 3% per year from 2011 onwards’. (Natural Resources Wales, 2020).

The Welsh Government has also prepared Statutory Guidance on adapting to climate change for Reporting Authorities in Wales. Natural Resources Wales is one such authority (Natural Resources Wales, 2020).



Climate change is a global issue. The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the scientific evidence that relates to climate change. In its fifth and latest assessment, it stated that human influence on the climate system is clear and that recent man-made emissions of greenhouse gases are at their highest levels in history.

Natural Resources Wales (2020).

In 2019 Wales was the first parliament in the world to declare a climate emergency (Welsh Government, 2019).





Llywodraeth Cynulliad Cymru
Welsh Assembly Government

The Climate Commission for Wales

‘In 2007, the Welsh Government set up the Climate Change Commission for Wales. This brought together the main political parties, various sector interests, delivery bodies, academics and climate change experts, in order to support delivery of the Welsh Government's climate change work in Wales.

The Commission has a number of subgroups, including one on adaptation. Natural Resources Wales currently chairs this subgroup’ (Natural Resources Wales, 2020).

The National Adaptation Programme

‘A new independent advisory body was created, the Committee on Climate Change, and a procedure for assessing the possible impacts of climate change in the UK was set. This is known as the 'Climate Change Risk Assessment' (CCRA).

(Natural Resources Wales, 2020).

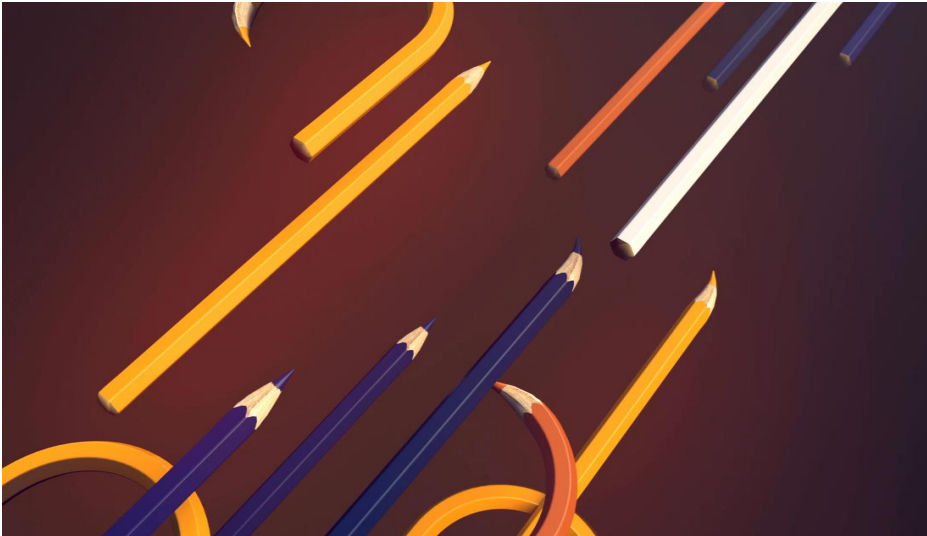
Protecting people, communities, buildings and infrastructure from flooding	
Actions taken already	New legislation to require sustainable drainage system standards in all new developments in Wales.
	Launched the Warm Homes Programme.
	NRW has produced Shore Management Plans.
Short term actions	25,000 homes fitted with energy efficiency measures by 2021.
	Launch fuel poverty plan for consultation
	Increase the use of 'nature based solutions' through the implementation of the river basin management plans and flood prevention strategies.
Medium term actions	Implement <i>Tackling Fuel Poverty 2020–2035: A plan to support people struggling to meet the cost of their domestic energy needs</i> in 2020.
	Implement the <i>National Strategy for Flood and Coastal Erosion Risk Management</i> in 2020.
	Include a measure for coastal groups to report annually in the new national strategy for flood and coastal risk management in 2020.

Climate Change Adaptation Plan 2019.

Protecting public water supplies from drought and low flows	
Actions taken already	Published Welsh Government's <i>Water Strategy for Wales</i> in 2015.
	Dwr Cymru's 'Let's Stop the Block' campaign.
	Water UK has launched its "Fine to Flush" standard.
	Drought plans have been produced by water companies in Wales.
Short term actions	New Water Resource Management Plans in 2020.
	Research to increase our understanding of the impacts of climate change on water availability to inform the climate change risk assessment in 2021.
	Natural Resources Wales to produce a costed national action plan for a five year period to restore our peatlands.
Medium term actions	The Welsh Government will publish new guidelines for Water Resource Management Plans by 2025.
	Ofwat has set water companies a minimum target to reduce water leakage by 15% by 2025.
	Produce new river basin management plans by 2021 and achieve 'good status' in our inland waters by 2027.

‘The CCRA required the UK Government to prepare a National Adaptation Programme for those matters for which it is responsible. It gave both the UK and Welsh Governments 'Adaptation Reporting Powers' – powers to direct other organisations.

Welsh Government (2019, p.9).



In Wales, we can expect to see more intense rainfall, more flooding in low-lying coastal areas as well as hotter, drier summers (Natural Resources Wales, 2020).



- 'Adaptation plans includes action to protect people and communities from flooding, caused by sea level rises due to climate change and conversely protect water supplies to avoid drought'.
- Action plans to address fuel poverty, due to colder temperatures, and improve drainage systems for new build properties (Welsh Government, 2019, p.6-8).

Woodlands for Wales Represents:

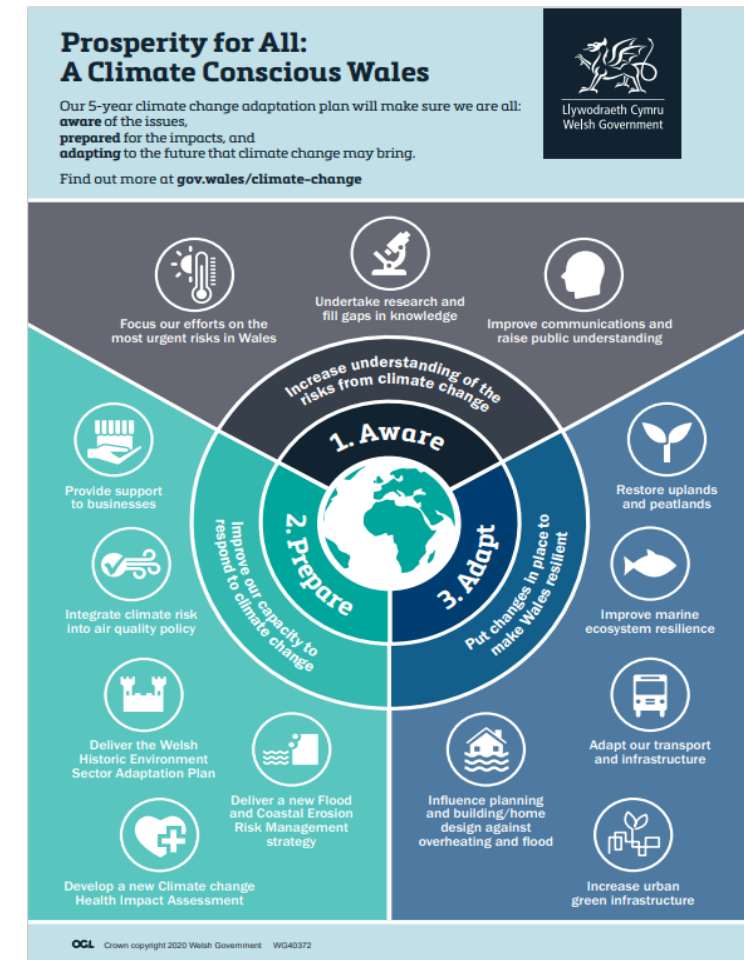
✓ Promotion of the message that urban woodlands and trees make a positive contribution to many other policy agendas, including those which concern climate change, health, social welfare, lifelong learning and biodiversity, and the management of water and soil resources (Welsh Government, 2019, p.18).

✓ An increase in woodland cover is now essential to delivery of the climate change and decarbonisation obligations...For this reason... there is '...a specific target for increasing woodland cover in Wales (Welsh Government, 2019, p.13).

✓ 'Making sure our plans to increase tree cover in urban and non-urban areas will significantly help address the risks arising from climate change' (Welsh Government, 2019, p.10).

- ❑ Mitigation could be the of planting of trees to absorb more carbon emissions.
- ❑ Adaptation would be planting a particular species of tree on a hillside that is at risk in future of flash floods due to climate change with the aim of slowing the rate of water flow and to bind the soil (Welsh Government, 2019).

- Be aware and understand the risks.
 - Prepare and adapt to the changes.
 - Protect future generations.
- (Welsh Government, 2019, p.7).



This is what we want to happen:

- 'More people of all ages and backgrounds benefit from accessible woodland and trees as settings for education, learning and play, leading to an improved understanding of woodlands and trees and the wider benefits they provide in terms of our environmental, economic, social and cultural well-being, and more sustainable and responsible behaviours'.
(Welsh Government, 2018, p.27).



- 'The public forest estate in Wales provides a setting for learning for all ages and abilities'.
- 'There is a culture of responsibility to future generations and ethical, informed citizenship through the appreciation and understanding of the woodland environment in all learning and training in, and about, woodlands'.
- 'People are able to take part in woodland related recreational learning and have opportunities for learning through play'.
(Welsh Government, 2018, p.53)



A black and white portrait of John Dewey, an older man with a mustache and glasses, wearing a suit and tie. The portrait is partially obscured by a large, light green circular graphic on the left side of the slide.

“education should be seen as having a wider social purpose: that of preparing children to become effective members of their society”

(Gray and MacBlain, 2015, p.38).

DEWEY
1933

“...activity and experience, both physical and mental are often the best means of gaining knowledge and acquiring facts”.

(Aubrey and Riley, 2019, p.15).

‘Minds, then, are not passively observing the world; rather, they are actively adapting, experimenting, and innovating’ (Hilderbrand, 2021, p.1).

Two important pieces of legislation guide Welsh Government policy development in relation to climate change:

1. **Firstly**, the Environment Act (Wales) 2016 provides a legal framework to manage Wales' natural resources and aims to position Wales as a low carbon and environmentally sustainable economy, ready to adapt to the impacts of climate change. Parts 1 and 7 of the Act are a key interest for climate change adaptation (Welsh Government, 2016).
2. **Secondly**, the Wellbeing of Future Generations (Wales) Act 2015 aims to improve the social, economic, environmental and cultural well-being of Wales (Welsh Government, 2015, p.3).

Both protect our country's assets for the future (Welsh Government, 2019, p.4).

Overview of the Environment (Wales) Act

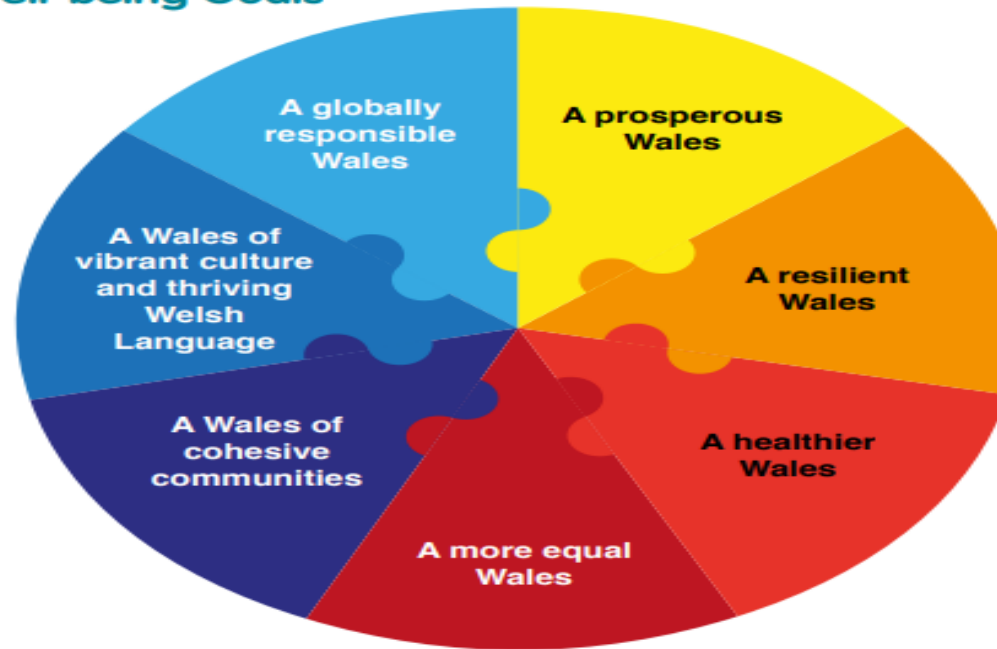


'Well-being of Future Generations Act 2015:

A comprehensive legislative approach to strengthening action on sustainable development, with a legal link to the UN Sustainable Development Goals'.

Welsh Government (2020, p.3)

Well-being Goals



Education for Sustainable Development and Global Citizenship

A Common Understanding for Schools

Nichola James 1806713 11.

‘The United Nations Decade of Education for Sustainable Development (2005-2014) sought to mobilize the educational resources of the world to help create a more sustainable future. Many paths to sustainability...exist. Education is one of these paths. UNESCO (2021).

The 7 themes that have been suggested...are based on themes of the United Nations Decade of Education for Sustainable Development.

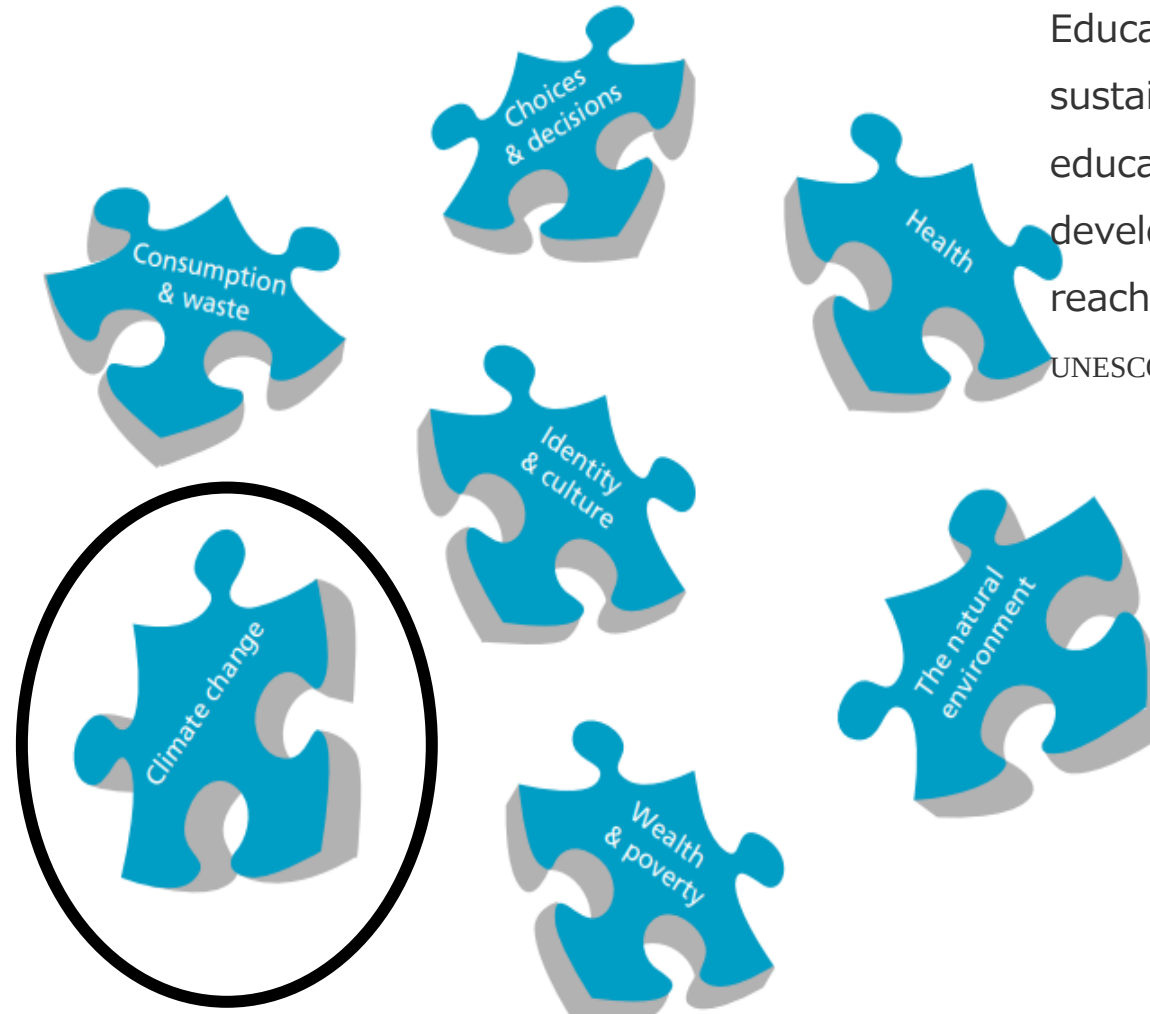
Welsh Assembly Government (2008).

‘They must be linked together...and excellence in ESDGC will allow learners to study a range of issues, through the themes’.

Welsh Assembly Government (2008).

Education alone cannot achieve a more sustainable future; however, without education and learning for sustainable development, we will not be able to reach that goal’.

UNESCO (2021).



Welsh Assembly Government (2008).

Aubrey, K. and Riley, A. (2019) *Understanding and using Educational Theories*. 2nd Edn. London: Sage Publications Ltd.

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