

The Second State of Natural Resources Report (SoNaRR2020)

Acronyms and Glossary of terms.

Natural Resources Wales

Final Report

Mae'r ddogfen hon hefyd ar gael yn Gymraeg

About Natural Resources Wales

Natural Resources Wales's purpose is to pursue sustainable management of natural resources. This means looking after air, land, water, wildlife, plants and soil to improve Wales's well-being, and provide a better future for everyone.

Evidence at Natural Resources Wales

Natural Resources Wales is an evidence-informed organisation. We seek to ensure that our strategy, decisions, operations and advice to Welsh Government and others are underpinned by sound and quality-assured evidence. We recognise that it is critically important to have a good understanding of our changing environment.

We will realise this vision by:

- Maintaining and developing the technical specialist skills of our staff;
- Securing our data and information;
- Having a well resourced proactive programme of evidence work;
- Continuing to review and add to our evidence to ensure it is fit for the challenges facing us; and
- Communicating our evidence in an open and transparent way.

Title: SoNaRR2020 Acronyms and Glossary of terms

Restrictions: None

The Second State of Natural Resources Report (SoNaRR2020) contents

This document is one of a group of products that make up the second State of Natural Resources Report (SoNaRR2020). The full suite of products are:

Executive Summary. Foreword, Introduction, Summary and Conclusions. Published as a series of webpages in December 2020

The Natural Resource Registers. Drivers, Pressures, Impacts and Opportunities for Action for eight Broad Ecosystems. Published as a series of PDF documents and as an interactive infographic in December 2020

Assessments against the four Aims of SMNR. Published as a series of PDF documents in December 2020:

SoNaRR2020 Aim 1. Stocks of Natural Resources are Safeguarded and Enhanced

SoNaRR2020 Aim 2. Ecosystems are Resilient to Expected and Unforeseen Change

SoNaRR2020 Aim 3. Wales has Healthy Places for People, Protected from Environmental Risks

SoNaRR2020 Aim 4. Contributing to a Regenerative Economy, Achieving Sustainable Levels of Production and Consumption

The SoNaRR2020 Assessment of Biodiversity. Published in March 2021

Assessments by Broad Ecosystem. Published as a series of PDF documents in March 2021:

Assessment of the Achievement of SMNR: Coastal Margins

Assessment of the Achievement of SMNR: Enclosed Farmland

Assessment of the Achievement of SMNR: Freshwater

Assessment of the Achievement of SMNR: Marine

Assessment of the Achievement of SMNR: Mountains, Moorlands and Heaths

Assessment of the Achievement of SMNR: Woodlands

Assessment of the Achievement of SMNR: Urban

Assessment of the Achievement of SMNR: Semi-Natural Grassland

Assessments by Cross-cutting theme. Published as a series of PDF documents in March 2021:

Assessment of the Achievement of SMNR: Air Quality

Assessment of the Achievement of SMNR: Climate Change

Assessment of the Achievement of SMNR: Energy Efficiency

Assessment of the Achievement of SMNR: Invasive Non-native Species

Assessment of the Achievement of SMNR: Land use and Soils

Assessment of the Achievement of SMNR: Waste

Assessment of the Achievement of SMNR: Water Efficiency

Updated SoNaRR evidence needs. Published in March 2021

Acronyms and Glossary of terms. Published in December 2020 and updated in March 2021

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Table 1 Acronyms and abbreviations used in SoNaRR

Acronym / abbreviation	Full terminology	
ADHD	Attention Deficit Hyperactivity Disorder	
AONB	Area of Outstanding Natural Beauty	
BMV	Best and most versatile	
CAGR	Compound Annual Growth Rate	
СВА	Cost-benefit analysis	
CBD	Convention on Biological Diversity	
CO ₂	Carbon dioxide	
COVID-19	Coronavirus disease 2019	
CuRVe	Current Relative Value of Resilience	
DECCA	Diversity, extent, condition, connectivity and other aspects of ecosystem resilience	
EEA European Environment Agency		
ERAMMP	Environmental and Rural Affairs Monitoring and Modelling Programme	
GDP	Gross domestic product	
GI	Green infrastructure	
GVA	Gross Value Added	
INNS	Invasive Non-native Species	
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	

Acronym / abbreviation	Full terminology	
IPCC	Intergovernmental Panel on Climate Change	
IUCN	International Union for Conservation of Nature	
LBAP	Local biodiversity action plan	
LNR	Local nature reserve	
LSOA	Lower super output area	
MCA	Multi criterion analysis	
NEA	National Ecosystem Assessment	
NFI	National Forest Inventory	
NHS	National Health Service	
NNR	National Nature Reserves	
NO2	Nitrogen Dioxide	
NRAP	Nature Recovery Action Plan	
NRW	Natural Resources Wales	
ONS	Office for National Statistics	
PAWS	Plantations on Ancient Woodland Sites	
PHW	Public Health Wales	
PM2.5	Fine particulate matter less than 2.5 microns in diameter	
PPE	Personal Protective Equipment	
PRoW	Public Right of Way	
REN	Resilient ecological networks	

Acronym / abbreviation	Full terminology	
RSPB	Royal Society for the Protection of Birds	
SAC	Special Area of Conservation	
SINC	Sites of Interest for Nature Conservation	
SMART	Specific, Measurable, Achievable, Realistic, Timely	
SMNR	Sustainable Management of Natural Resources	
SOM	Soil organic matter	
SoNaRR	State of Natural Resources Report	
SPA	Special Protection Area	
SSSI	Site of Special Scientific Interest	
SuDS	Sustainable Drainage Systems	
TWh	Terawatt-hour	
UK	United Kingdom	
UK NEA or UKNEA	UK National Ecosystem Assessment	
UN	United Nations	
WAVES	Wealth Accounting and Valuation of ecosystem services	
WFD Water Framework Directive		
who	World Health Organisation	
WWNP	Working with natural processes	

Table 2 Description of units used in SoNaRR

Units	Description	
km	Kilometre(s). 1 km ² = 100 ha	
m	Million (Aim 1)	
Mt	Million tonnes	
MtC	Million tonnes carbon	
ha	Hectare(s). 1 ha = 0.01 km^2	

Table 3 Definitions of Natural Resources and Broad Habitats in SoNaRR

Category	Term	Definition	
Natural Resource	Animals, plants and other organisms	The species that make up Wales' ecosystems that may or may not be important in the functioning of the ecosystems but nevertheless contribute to the overall biodiversity of Wales.	
Natural Resource	Air Quality	Refers to the quality of the air around us in Wales and the emissions we produce including pollutants and radioactive substances.	
Natural Resource	Water resources and hydrological processes	Water resources refers to the quantity of our freshwater resource available to support the environment, people and businesses. Hydrological processes are the natural processes of the water cycle, including evaporation, condensation, precipitation, infiltration and run-off. Marine and coastal hydrological processes include both tides and waves.	
Natural Resource	Soils	Formed by the weathering of rocks and minerals and the accumulation of organic materials, which often takes hundreds to thousands of years. Soil formation is a continuous process although rates of loss can be much greater than formation and therefore should be treated as a non-renewable resource. Soils are the foundation of land, ecosystems and habitats.	
Natural Resource	Geodiversity	Geodiversity is the range (diversity) of geological (e.g. rocks, minerals, structures, fossils) geomorphological (e.g. landforms, the physical landscape, natural physical processes) and soil features.	

Category	Term	Definition
Broad Habitat	Mountains, moorlands and heaths	Mountainous habitats are those above the climatic tree-line. Moorlands and heaths are predominantly open, unenclosed and extensive landscapes. This broad habitat includes upland and lowland heathlands (including dwarf shrub heath), moorlands, blanket bog, montane habitats (including ffridd), inland rock habitats (exposures) and stands of bracken in the lowlands. They are often interspersed with other habitats such as semi-natural grasslands (including acid grassland, Wales's most extensive upland habitat) (see semi-natural grasslands), woodlands and surface water. Coastal and dune heathlands are included under coastal margins.
Broad Habitat	Semi-natural grasslands	Semi-natural grasslands are characterised by mixtures of grasses and herbaceous plants, along with varied amounts of sedges, rushes, mosses and lichens. They fall into five broad categories, developed in response to local climate, soil, hydrology, geology and management: acid, neutral, calcareous, marshy and, a very rare type, calaminarian grassland. They occur in both upland and lowland situations. Six forms of SNG are listed as being of "principle importance" ('priority habitats') in the Environment (Wales) Act 2016: lowland meadows; lowland dry acid grassland; purple moor-grass and rush pastures; calaminarian grassland; lowland calcareous grasslands; upland calcareous grasslands. They are of particular importance for higher plants, fungi and invertebrates. They also support a range of mammals, birds and other vertebrates.

Category	Term	Definition	
Broad Habitat	Enclosed farmland	Enclosed Farmland comprises the agricultural land in lowland Wales that is surrounded by field boundaries. It includes arable crops, horticulture, orchards and temporary grasslands as well as agriculturally improved permanent grasslands, but excludes areas of enclosed semi-natural grassland, scrub, farm woodland and habitats in the upland fringes (ffridd).	
Broad Habitat	Woodland	Land where the ecological condition is, or will be, strongly influenced by the tree canopy. In terms of land cover statistics (in the UK), woodland is currently defined as land with trees where the mature trees would cover more than 20 per cent by area. Large tracts are generally called forests, smaller units are described in a variety of terms such as woodlands, woods, copses and shelterbelts, but there is no minimum size for a woodland.	
Broad Habitat	Freshwater	Freshwater-based ecosystems occur wherever rainfall, snowmelt or groundwater collects into flowing channels (rivers and streams), standing waters, or associated bogs, fens, grazing marshes, wetlands and floodplains (UK NEA, 2011, Chap 9). Groundwater is the water stored in soil and rocks. It provides baseflow to springs, rivers and wetlands (freshwater group). This broad habitat includes groundwater, wetlands, rivers and streams, and standing waters (lakes and ponds).	
Broad Habitat	Urban	The built environment (UK NEA, 2011. Ch 10 Urban). This includes buildings, roads, gardens, parks and informal greenspaces, waste sites and any other structure or space installed for human activities (ONS, 2015).	

Category	Term	Definition	
Broad Habitat	Coastal margins	Habitats around the coastline of Wales including the three most extensive (sand dunes, saltmarsh and sea cliffs) and two others (saline or coastal lagoons and shingle). Other habitats found around Welsh coasts (urban, semi-natural grasslands, enclosed farmland, rocky shores, mudflats and sandflats, estuaries, etc.) are covered under other broad habitats.	
Broad Habitat	Marine	Includes marine water quality (particularly bathing waters and shellfish waters) and the intertidal and subtidal inshore areas. The intertidal area covers the coastal area from the high water mark down to the low water mark that is inundated with seawater at some stage in the tidal cycle (UK NEA, 2011, Chap 12 Marine). The marine inshore area of the marine environment covers the Welsh area that is permanently immersed in seawater (considered to be subtidal) (UK NEA, 2011, Chap 12 Marine) from the low water mark out to 12 nautical miles.	

Table 4 Glossary of terms used in SoNaRR

Term	Definition	Source of definition
Acidification	Acidification is a natural process. The term is used to describe the loss of nutrient bases (calcium, magnesium and potassium) through the process of leaching and their replacement by acidic elements (hydrogen and aluminium)	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].
Agricultural intensification	An increase in agricultural production per unit of inputs (which may be labour, land, time, fertilizer, seed, feed or cash)	Food and Agriculture Organisation. 2004. The ethics of sustainable agriculture. FAO. Available from: <u>http://www.fao.org/3/j</u> <u>0902e/j0902e03.htm</u> <u>#bm03.</u> [Accessed 20 November 2020].
Agroecology	Study of the relation of agricultural crops and environment.	United Nations. 1997. Glossary of Environment Statistics. Studies in Methods Series F, No. 67. New York: United Nations. Available from: <u>https://unstats.un.org</u> <u>/unsd/publication/seri</u> <u>esf/seriesf_67e.pdf</u> . [Accessed 7 December 2020].

Term	Definition	Source of definition
Agroforestry	Collective term for land-use systems and technologies in which woody perennials (trees, shrubs, palms, bamboos and so forth) are deliberately used on the same land management unit as agricultural crops and/or animals, in some form of either spatial arrangement or temporal sequence.	United Nations. 1997. Glossary of Environment Statistics. Studies in Methods Series F, No. 67. New York: United Nations. Available from: <u>https://unstats.un.org</u> <u>/unsd/publication/seri</u> <u>esf/seriesf_67e.pdf</u> . [Accessed 7 December 2020].
Aichi Biodiversity Targets	United Nations globally recognised set of targets with the aim of halting the loss of biodiversity to ensure ecosystems are resilient and continue to provide essential services.	Secretariat of the Convention on Biological Diversity. 2010. Strategic Plan for Biodiversity 2011–2020 and the Aichi Targets. "Living in Harmony with Nature". Quebec: CBD and UNEP.
Area Statements	The Environment (Wales) Act specifies that statements for the purpose of facilitating the implementation of the national natural resources policy must be prepared and published by NRW. Each statement will correspond to a specific area of Wales and include reference to natural resources in the area, the benefits they provide and the priorities, risks and opportunities for sustainable management that need to be addressed.	Environment (Wales) Act 2016.

Term	Definition	Source of definition
Article 17 (of European Habitats Directive)	Article 17 requires Member States to report every six years about the progress made with the implementation of the Habitats Directive. As the main objective of the directive is on maintaining and restoring a favourable conservation status for habitat types & species of community interest, monitoring and reporting under Article 17 is focusing on capturing the status and trends of these habitat types and species.	European Commission. 2020. Habitats directive reporting. Available from: <u>https://ec.europa.eu/</u> <u>environment/nature/k</u> <u>nowledge/rep_habita</u> <u>ts/index_en.htm.</u> [Accessed 20 November 2020].
Asset	A thing (object or concept) of value that brings benefits or a series of benefits to people. It is a means of carrying forward value from one accounting period to another.	Natural Capital Committee. 2013. The State of Natural Capital: Towards a framework for measurement and valuation. Available from: <u>https://www.gov.uk/g</u> <u>overnment/uploads/s</u> <u>ystem/uploads/attach</u> <u>ment_data/file/51670</u> <u>7/ncc-state-natural- capital-first- report.pdf</u> . [Accessed 20 November 2020].

Term	Definition	Source of definition
Benefits	An advantage or profit gained from something. In the context of SoNaRR, a benefit can be described as anything that any component or collective of natural resources does to sustain life and well-being on earth. It could be an environmental, cultural, social or economic benefit, and can be both measurable and non- measurable. We typically use the term "Ecosystem Services" to categorise these benefits, although we may equally think about the many ways natural resources contribute to the well- being goals.	Oxford University Press 2016. Definition of Benefit. Oxford Dictionary. Available from: <u>http://www.oxforddicti</u> <u>onaries.com/definitio</u> <u>n/english/benefit</u> . [Accessed 20 November 2020].
Best buy	Used to describe the best product or service that is available in relation to price.	Cambridge Dictionary. 2020. Definition of best- buy. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/best-buy.</u> [Accessed 20 November 2020].
Bio-augmented	Bioaugmentation (the process of adding selected strains/mixed cultures to wastewater reactors to improve the catabolism of specific compounds, e.g. refractory organics, or overall COD) is a promising technique to solve practical problems in wastewater treatment plants and enhance removal efficiency.	Herrero M, Stuckey DC. 2015. Bioaugmentation and its application in wastewater treatment: A review. Chemosphere 140: 119-128.

Term	Definition	Source of definition
Biocapacity	The ability of a particular area to support human life in terms of the amount of food, fuel, etc. it can produce and the amount of waste it can deal with	Cambridge Dictionary. 2020. Definition of biocapacity. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/biocapacity.</u> [Accessed 20 November 2020].
Biochar	'Biochar' is a catch-all term describing any organic material that has been carbonised under high temperatures (300-1000°C), in the presence of little, or no oxygen.	Royal Horticultural Society. 2020. Biochar. Available from: <u>https://www.rhs.org.u</u> <u>k/advice/profile?PID=</u> <u>1014.</u> [Accessed 20 November 2020].
Biodiversity	("biological diversity") The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems. Includes diversity within and between species, habitats and ecosystems.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.
Biofuel	Liquid fuels derived from biomass and predominantly used in transportation. The dominant biofuels are ethanol and biodiesel.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary. Cambridge: UNEP- WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp x. [Accessed 27 November 2020].

Term	Definition	Source of definition
Biogenic secondary organic aerosols	Are formed from the biogenic volatile organic compounds that are produced by plants. They are emitted from vegetation into the atmosphere and can have significant effects on other organisms and on atmospheric chemistry.	Peñuelas J, Staudt M. 2010. BVOCs and global change. Trends in plant science 15, 133-144.
Biomass	The mass of tissues in living organisms in a population, ecosystem, or spatial unit.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].
Biosphere	The part of the earth's environment where life exists	Cambridge Dictionary. 2020. Definition of biosphere. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/biosphere.</u> [Accessed 20 November 2020].
Blue carbon	The carbon stored and sequestered by marine habitats.	Armstrong S, Hull S, Pearson Z, Wilson R, Kay S. 2020. Estimating the Carbon Sink Potential of the Welsh Marine Environment. Cardiff: NRW.

Term	Definition	Source of definition
Blue space	Visible water. Harbour front parks, rivers, ponds, lakes, ports, canals, fountains, etc. are all counted as blue spaces.	Tang K. 2017. Urban Design and Public Health – What is Blue Space? [online] Newcastle University. Available from: <u>https://2016-</u> 2017.nclurbandesign .org/2017/01/urban- design-public-health- <u>blue-space/.</u> [Accessed: 24 November 2020].
Broad habitat	Used to classify different ecosystems for reporting. [For SoNaRR, these consist of: Mountains, moorlands and heaths; Semi-natural grasslands; Enclosed farmland; Woodlands; Urban; Freshwater; Coastal margins; Marine]	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.
Brominated diphenyl ethers	A group of man-made compounds that have been used as flame retardants. They have potential adverse effects on humans and aquatic life, persist in nature and bioaccumulate leading to some of them being classed as persistent organic pollutants.	Environment Agency. 2019. Polybrominated diphenyl ethers (PBDEs): sources, pathways and environmental data. Available from: <u>https://consult.enviro</u> <u>nment-</u> <u>agency.gov.uk/enviro</u> <u>nment-and-</u> <u>business/challenges-</u> <u>and-</u> <u>choices/user_upload</u> <u>s/polybrominated-</u> <u>diphenyl-ethers-</u> <u>pressure-rbmp-</u> <u>2021.pdf.</u> [Accessed 24 November 2020].

Term	Definition	Source of definition
Capital	 There are various forms of capital. This includes natural, human, produced, financial and social capital. All are stocks that have the capacity to produce flows of economically desirable outputs. The maintenance of all five kinds of capital is essential for the sustainability of economic development. Financial capital facilitates economic production, though it is not itself productive, referring rather to a system of ownership or control of physical capital. Natural capital is made up of the resources and ecosystem services of the natural world. Produced capital consists of physical assets generated by applying human productive activities to natural capital and capable of providing a flow of goods or services. Human capital refers to the productive capacities of an individual, both inherited and acquired through education and training. Social capital, the most controversial and the hardest to measure, consists of a stock of trust, mutual understanding, shared values and socially held knowledge. 	Goodwin NR. 2003. Five Kinds of Capital: Useful Concepts for Sustainable Development. Global development and environment institute Working paper no. 03-07. Available from: https://core.ac.uk/do wnload/pdf/7051857. pdf. [Accessed 24 November 2020].

Term	Definition	Source of definition
Carbon farming	Involves implementing practices that are known to improve the rate at which CO ₂ is removed from the atmosphere and converted to plant material and/or soil organic matter.	Carbon Cycle Institute. 2020. Carbon farming [online]. Available from: <u>https://www.carboncy</u> <u>cle.org/carbon- farming/.</u> [Accessed 30 November 2020].
Carbon footprint	Measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product.	Carbon Trust. 2018. Carbon footprinting guide [online]. Available from: <u>https://www.carbontr</u> <u>ust.com/resources/ca</u> <u>rbon-footprinting-</u> <u>guide.</u> [Accessed 24 November 2020].
Carbon sequestration (also storage and capture)	(also sequestering carbon, carbon storage, carbon capture) The uptake of carbon containing substances, in particular carbon dioxide to a storage reservoir (e.g. trees, soils) so reducing atmospheric carbon dioxide.	Allwood JM, Bosetti V, Dubash NK, Gómez-Echeverri L, von Stechow C. 2014. Glossary. In: IPCC. 2014. Climate Change, 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Term	Definition	Source of definition
Circular economy	A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life.	WRAP. 2016. WRAP and the circular economy [Online]. Available from: <u>http://www.wrap.org.</u> <u>uk/about-</u> <u>us/about/wrap-and-</u> <u>circular-economy.</u> [Accessed 24 November 2020].
Climate change	A change in the state of the climate that can be identified by changes in the mean and/or variability of its properties, and that persists for an extended period, typically decades or longer.	Allwood JM, Bosetti V, Dubash NK, Gómez-Echeverri L, von Stechow C. 2014. Glossary. In: IPCC. 2014. Climate Change, 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
Co-benefits	Co-benefits implies a 'win–win' strategy to address two or more goals with a single policy measure.	Mayrhofer JP, Gupta G. 2016. The science and politics of co- benefits in climate policy. Environmental Science and Policy 57, 22-30.

Term	Definition	Source of definition
Coastal Squeeze	Coastal squeeze is one form of coastal habitat loss, where intertidal habitat is lost due to the high-water mark being fixed by a defence or structure (i.e. the high- water mark residing against a hard structure such as a seawall) and the low water mark migrating landwards in response to sea level rise.	Pontee N. 2011. Reappraising coastal squeeze: A case study from North- West England. Proceedings of the Institution of Civil Engineers: Maritime Engineering. https://www.icevirtual library.com/doi/abs/1 0.1680/maen.2011.1 64.3.127. [Accessed 7 December 2020]. As quoted in: Oaten J, Brooks A. and Frost N. 2018. Coastal Squeeze Evidence and Monitoring Requirement Review. NRW Report No: 307, 188pp, Natural Resources Wales, Cardiff.
Compaction	Changing the nature of the soil such that there is a decrease in the volume of voids between soil particles or aggregates; it is manifest as an increase in bulk density and a severely compacted soil can become effectively impermeable. Some soils are naturally compacted, e.g. very heavy textured soils (fine textured). Man-made compaction is caused by the passage of heavy machinery and very intensive soil exploitation.	RECARE Hub. 2018.Soil compaction definition [Online]. Available from: <u>http://www.recare- hub.eu/glossary/89:s</u> <u>oil-compaction.</u> [Accessed 26 November 2020].

Term	Definition	Source of definition
Composite Material	A material made from two or more constituent materials with significantly different physical or chemical properties.	TWI. 2020. What is a composite material? (a definitive guide) [online]. Available from: https://www.twi-global.com/technical-knowledge/faqs/what -is-a-composite-material. [Accessed 30 November 2020].
Condition	(of a species or habitat) The capacity to yield services relative to its potential capacity. This is usually described in relation to a desired reference state (good or favourable condition) and is typically defined in terms of extent, distribution, structures and functions, and species composition for habitats and population size structure and habitat quality for species.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.
Connectivity	The degree to which the landscape facilitates or impedes movement among resource patches.	Taylor PD, Fahrig L, Heinen K, Merriam G. 1993. Connectivity is a vital element of landscape structure. Oikos 68, 571-572.
Cost-benefit analysis	A technique designed to determine the feasibility of a project or plan by quantifying its costs and benefits.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> <u>/tabid/82/Default.asp</u> <u>x.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Critical load	Thresholds for the deposition of pollutants causing acidification and/or eutrophication above which significant harmful effects on sensitive UK habitats may occur.	JNCC. 2015. JNCC Biodiversity indicators. B5a Air pollution, part of B5 Pressure from pollution. Pressure indicator [online]. Available from: <u>https://jncc.gov.uk/ou</u> <u>r-work/ukbi-b5a-air- pollution/.</u> [Accessed 26 November 2020].
Decarbonisation / Decarbonise	The process by which countries or other entities aim to achieve a low-carbon economy, or by which individuals aim to reduce their consumption of carbon.	IPCC. 2014. Annex II: Glossary [Mach KJ, Planton S and von Stechow C (eds.)] In: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri RK, Meyer LA. (eds.)]. IPCC, Geneva pp. 117-130. Available from: https://www.ipcc.ch/s ite/assets/uploads/20 18/02/AR5_SYR_FIN AL_Annexes.pdf. [Accessed 30 November 2020].

Term	Definition	Source of definition
Degradation	(of an ecosystem) A persistent reduction in the capacity to provide ecosystem services.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].
Degenerative	Of, relating to, involving, or causing a lowering of effective power, vitality, or essential quality to a worsened state	Merriam-Webster. 2020. Definition of degenerative. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/degenerative.</u> [Accessed 30 November 2020].
		Merriam-Webster. 2020. Definition of degeneration. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/degeneration</u> . [Accessed 30 November 2020].
Diffuse pollution	Pollution resulting from scattering or dispersed sources that are collectively significant but to which effects are difficult to attribute individually.	Natural Resources Wales. 2015. River Basin Management Plan Overview Annex.

Term	Definition	Source of definition
Digestate	Remaining part of organic matter treated by anaerobic digestion, rich in nutrients and nitrogen, commonly used as an organic fertilizer in agriculture.	European Biogas Association. 2015. Digestate Factsheet [online]. Available from: <u>http://europeanbioga</u> <u>s.eu/wp-</u> <u>content/uploads/201</u> <u>5/07/Digestate-</u> <u>paper-final-</u> <u>08072015.pdf.</u> [Accessed 30 November 2020].
Directives	A "Directive" is a legislative act that sets out a goal that all EU countries must achieve. However, it is up to the individual countries to devise their own laws on how to reach these goals. E.g. Water Framework Directive, Bathing Waters Directive, Habitats Directive (Habitats Directive - Annex I habitats, Annex II species).	Europa EU. 2016. European Union - Regulations, Directives and other acts [online]. Available from: <u>https://europa.eu/eur</u> <u>opean- union/law/legal- acts_en</u> . [Accessed 27 November 2020].
Diversity	The variety and relative abundance of different entities in a sample.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Ecological footprint	An indicator of the total environmental burden that society places on the planet. It represents the area of land needed to provide raw materials, energy and food, as well as absorb pollution and waste created and is measured in global hectares.	Stockholm Environmental Institute and GHD. 2015. Ecological and Carbon Footprints of Wales. Update to 2011. July 2015.
Ecosystem	Communities of interacting animals, plants and other organisms and their non-living (physical and chemical) environment.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC. EEA. 2015. European ecosystem assessment - concept, data and implementation. Contribution to Target 2 Action 5 Mapping and Assessment of Ecosystems and their Services (MAES) of the EU Biodiversity Strategy to 2020. European Environment Agency Technical Report no. 6/2015. ISSN 1725- 2237.

Term	Definition	Source of definition
Ecosystem services	The benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth. The concept "ecosystem goods and services" is synonymous with ecosystem services.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].
Extent	The scale, or area covered, by a natural resource or habitat.	Environment (Wales) Act 2016.
Flotsam and jetsam	Small or unimportant items that are found together, especially ones that have no connection with each other.	Collins Dictionary. 2020. Definition of flotsam and jetsam. Available from: <u>https://www.collinsdic</u> <u>tionary.com/dictionar</u> <u>y/english/flotsam-</u> <u>and-jetsam.</u> [Accessed 30 November 2020].
Fluvial	Of, relating to, or living in a stream or river.	Merriam-Webster. 2020. Definition of fluvial. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/fluvial.</u> [Accessed 30 November 2020].

Term	Definition	Source of definition
Fly-camping	Camping in a place that is not a campsite for a brief time using minimal equipment, which is illegal in much of the UK.	Macmillan dictionary. 2020. Definition of fly camping [online]. Available from: <u>https://www.macmilla</u> <u>ndictionary.com/dicti</u> <u>onary/british/fly-</u> <u>camping.</u> [Accessed 30 November 2020].
Fly-tipping	The illegal deposit of any waste onto land that does not have a licence to accept it.	Keep Britain Tidy. 2020. Fly-tipping and the law [online]. Available from <u>https://www.keepbrit</u> <u>aintidy.org/faqs/advic</u> <u>e/fly-tipping-and-law.</u> [Accessed 30 November 2020].
Fragmentation	(habitat fragmentation) Fragmentation is the result of transforming large habitat patches into smaller, more isolated fragments of habitat.	EEA. 2011. Landscape fragmentation in Europe. Joint EEA- FOEN report. European Environment Agency Report No 2/2011.
Geospatial	Of or relating to the relative position of things on the earth's surface.	Collins Dictionary. 2020. Definition of geospatial. Available from: <u>https://www.collinsdic</u> <u>tionary.com/dictionar</u> <u>y/english/geospatial.</u> [Accessed 30 November 2020].

Term	Definition	Source of definition
Green engineering	The design, commercialisation, and use of processes and products in a way that reduces pollution, promotes sustainability, and minimises risk to human health and the environment without sacrificing economic viability and efficiency.	United States Environmental Protection Agency. 2019. About Green Engineering [online]. Available from: <u>https://www.epa.gov/ green- engineering/about- green-engineering.</u> [Accessed 30 November 2020].
Green infrastructure / greenspace	Green and blue natural and semi- natural spaces in and around urban areas. Component elements include parks, private gardens, agricultural fields, hedges, trees, woodland, green roofs, green walls, canals, rivers and ponds. The term covers all land containing these features, regardless of ownership, condition or size.	Landscape Institute 2013. Green Infrastructure An integrated approach to land use. Landscape Institute Position Statement. London.
Greenhouse gases	A group of gases that contribute either directly to climate change (including global warming) owing to their positive radiative forcing effect, or indirectly because they can produce increases in tropospheric ozone concentrations and this increases radiative forcing (warming of the atmosphere).	National Atmospheric Emissions Inventory. 2016. Overview of Greenhouse Gases [Online]. Available from: <u>https://naei.beis.gov.</u> <u>uk/overview/ghg- overview</u> . [Accessed 27 November 2020].

Term	Definition	Source of definition
Habitat	An ecological or environmental area that is inhabited by a particular animal or plant species. 'Broad Habitats' are used to classify different ecosystems for reporting.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> <u>/tabid/82/Default.asp</u> <u>x.</u> [Accessed 27 November 2020].
Healthy life years (or disability adjusted life years)	Healthy life years, also called disability-free life expectancy, is defined as the number of years that a person is expected to continue to live in a healthy condition. Disability adjusted life years are a time-based measure that combines years of life lost due to premature mortality (YLLs) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability.	Eurostat. 2020. Statistics explained [online]. Available from: https://ec.europa.eu/ eurostat/statistics- explained/index.php? title=Glossary:Health y life_years (HLY). [Accessed 27 November 2020]. World Health Organisation Data Platform. 2020. Indicator Metadata Registry List [online] Available from: https://www.who.int/d ata/gho/indicator- metadata- registry/imr- details/158#:~:text=T he%20overall%20bur den%200f%20diseas e,due%20to%20disa bility%20(YLDs). [Accessed 27 November 2020].

Term	Definition	Source of definition
Heat island	(and heat island effect) The tendency for urban areas to be hotter than surrounding rural, vegetated areas, especially at night in low-wind conditions. This is caused by hard surfaces absorbing heat during the day and releasing it at sunset – exacerbated where there is a lack of vegetation to cool the local atmosphere through evapo- transpiration.	Landsberg H. 1981. The Urban Climate. London: Academic Press.
Honeypot	Very desirable or very popular.	Collins Dictionary. 2020. Definition of honeypot. Available from: <u>https://www.collinsdic</u> <u>tionary.com/dictionar</u> <u>y/english/honeypot</u> [Accessed 30 November 2020].
'Inclusive wealth' approach	Inclusive wealth is the social value of all of a country's capital assets (natural, human and produced capital).	United Nations Environment Programme. 2018. Inclusive Wealth Report 2018. Available from: <u>https://www.unenviro</u> <u>nment.org/resources/</u> <u>report/inclusive-</u> <u>wealth-report-2018.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Indicator	Indicators quantify information by synthesising different and multiple information into an observed value.	EEA. 2015. European ecosystem assessment - concept, data and implementation. Contribution to Target 2 Action 5 Mapping and Assessment of Ecosystems and their Services (MAES) of the EU Biodiversity Strategy to 2020. European Environment Agency Technical Report no. 6/2015. ISSN 1725- 2237
Industrial symbiosis	A form of brokering to bring companies together in innovative collaborations to find ways to use the waste of one company as a raw material for another.	European Circular Economy Stakeholder Platform. 2020. Sharing Materials to Minimize Waste: Industrial Symbiosis Project [online] Available from <u>https://circularecono</u> <u>my.europa.eu/platfor</u> <u>m/en/good-</u> <u>practices/sharing-</u> <u>materials-minimize-</u> <u>waste-industrial-</u> <u>symbiosis-project.</u> [Accessed 30 November 2020].

Term	Definition	Source of definition
Intensive agriculture	Farming that uses a lot of machinery, labour, chemicals, etc. in order to grow as many crops or keep as many animals as possible on the amount of land available.	Cambridge Dictionary. 2020. Definition of intensive agriculture. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/intensive-</u> <u>agriculture.</u> [Accessed 30 November 2020].
Internet of Things	Connections between objects of all kinds via the internet that enable them to communicate with people and with each other.	Macmillan dictionary. 2020. Definition of internet of things [online]. Available from: <u>https://www.macmilla</u> <u>ndictionary.com/dicti</u> <u>onary/british/internet- of-things</u> . [Accessed 30 November 2020].
Intervention	See Response.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Invasive non-native species	(INNS) Plants, animals, fungi and microorganisms whose introduction and/or spread outside their natural past or present ranges pose a risk to biodiversity or have other unforeseen negative consequences.	EEA. 2012. Invasive alien species indicators in Europe. A review of streamlining European biodiversity (SEBI) Indicator 10. European Environment Agency Technical Report No. 15/2012.
Land bank	An area of land owned by a person or organization that is considered as an asset because it could be used for building property on in the future.	Cambridge Dictionary. 2020. Definition of land bank. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/land-bank</u> . [Accessed 30 November 2020].
Leachate	(and leaching) Liquid that has seeped through solid waste in a landfill and has extracted soluble dissolved or suspended materials in the process. Leaching is the process of this happening.	European Environment Agency. 2004. EEA Glossary. Available from: <u>https://www.eea.euro</u> <u>pa.eu/help/glossary/e</u> <u>ea-glossary/landfill- leachate#:~:text=Liq</u> <u>uid%20that%20has%</u> <u>20seeped%20throug</u> <u>h,suspended%20mat</u> <u>erials%20in%20the%</u> <u>20process.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Material footprint	The attribution of global material extraction to domestic final demand of a country. The total material footprint is the sum of the material footprint for biomass, fossil fuels, metal ores and non- metal ores.	United Nations Environment Programme. 2018. SDGS Goal 8 Target 8.4 Metadata. Available from: <u>https://unstats.un.org</u> /sdgs/metadata/files/ <u>Metadata-08-04-</u> 01.pdf. [Accessed: 30 November 2020].
Natural Resources Policy	(NRP) A document setting out the Welsh Ministers' general and specific policies for contributing to achieving sustainable management of natural resources in relation to Wales. The NRP will use SoNaRR as the main evidence base.	Environment (Wales) Act 2016.
Natural resources	The living and non-living components of ecosystems. Including: animals, plants and other organisms; air, water and soil; minerals; geological features and processes; physiographical features; climatic features and processes.	Environment (Wales) Act 2016.
Nature-based solutions	Actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.	IUCN. 2020.Nature- based solutions [online]. Available from: <u>https://www.iucn.org/</u> <u>commissions/commis</u> <u>sion-ecosystem-</u> <u>management/resourc</u> <u>es/nature-based-</u> <u>solutions.</u> [Accessed 30 November 2020].

Term	Definition	Source of definition
Overexploitation	To exploit (something, such as a natural resource) to an excessive degree.	Merriam-Webster. 2020. Definition of overexploitation. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/overexploitation.</u> [Accessed 30 November 2020].
Overgrazing	To allow animals to graze (an area, such as a pasture) to the point of damaging vegetational cover.	Merriam-Webster. 2020. Definition of overgrazing. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/overgrazing</u> . [Accessed 30 November 2020].
Ozone	Ozone (O ₃) is not emitted directly from any man-made source in any significant quantities. In the lower atmosphere, O ₃ is primarily formed by a complicated series of chemical reactions initiated by sunlight. These reactions can be summarised as the sunlight- initiated oxidation of volatile organic compounds (VOCs) in the presence of nitrogen oxides (NOx).	Air Quality in Wales. 2020. Pollutants: Ozone and volatile organic compounds. Website of the Welsh air quality forum. Available from: <u>https://airquality.gov.</u> <u>wales/about-air- quality/pollutants.</u> [Accessed 27 November 2020].

Term	Definition	Source of definition
Particulate Matter (PM)	(also known as particulate or particulate pollution) Airborne particulate matter is made up of a collection of solid and/or liquid materials of various sizes. It consists of both primary components released directly (from source) into the atmosphere, and secondary components, which are formed in the atmosphere from chemical reactions. Particulate matter equal to or less than 10µm in diameter is known as PM ₁₀ , particulate matter equal to or less than 2.5µm in diameter is known as PM _{2.5} .	Air Quality Expert Group. 2005. Particulate Matter in the United Kingdom: Summary. Defra, London. Available from: <u>https://uk- air.defra.gov.uk/asse</u> ts/documents/reports /aqeg/pm- summary.pdf. [Accessed 27 November 2020].
Photovoltaic panels	Also known as solar electricity panels. Capture the sun's energy and convert it into electricity.	Energy savings trust. 2020. Solar panels [online]. Available from: https://energysavingt rust.org.uk/advice/sol ar-panels/. [Accessed 30 November 2020].
Placemaking	An overarching idea and a hands- on approach for improving a neighbourhood, city, or region. It is a collaborative process by which the public realm can be shaped in order to maximize shared value.	Project for Public Spaces. 2010. What is placemaking? [online] Available from: <u>https://www.pps.org/</u> <u>article/what-is-</u> <u>placemaking.</u> [Accessed 30 November 2020].

Term	Definition	Source of definition
Pollinators	Something, such as an insect, that carries pollen from one plant or part of a plant to another	Cambridge Dictionary. 2020. Definition of pollinator. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/pollinator.</u> [Accessed 27 November 2020].
Pollination	A process in the sexual phase of reproduction in some plants caused by the transportation of pollen. In the context of ecosystem services, pollination generally refers to animal assisted pollination, such as that done by bees, rather than wind pollination.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Glossary Cambridge: UNEP-WCMC. Available from: <u>http://uknea.unep- wcmc.org/Resources</u> /tabid/82/Default.asp <u>x.</u> [Accessed 27 November 2020].
Pollution	(also pollutant) The direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which: (i) may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems; (ii) result in damage to material property; or (iii) impair or interfere with amenities and other legitimate uses of the environment.	Natural Resources Wales. 2015. River Basin Management Plan Overview Annex.
Pollution incidents	Occurrences of pollution entering the air, land or water that are reported to NRW and cause an environmental impact.	NRW. 2016. Intranet - Incidents and incident communications centre. NRW internal link.

Term	Definition	Source of definition
Pressure	Human activities that have the potential to have adverse effects on the environment.	Environment Agency. 2015. Water for life and livelihoods. River Basin Management Plans Glossary. DEFRA.
Protected sites	(or protected areas) Areas that have been designated under EU and/or UK legislation for specific biological or geological features.	Environment Agency. 2015. Water for life and livelihoods. River Basin Management Plans Glossary. DEFRA.
Psychophysiological	Combining or involving mental or bodily processes – of or relating to physiological psychology.	Merriam-Webster. 2020. Definition of psychophysiological. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/psychophysiologic</u> <u>al</u> [Accessed 26 November 2020].
Public Service Boards	A group (board) set up in each local authority area as defined in the Well-being of Future Generations (Wales) Act. The boards comprise of the local authority, the local health board for an area any of part of which falls within the local authority area, the Welsh fire and rescue authority for an area any part of which falls within the local authority area, and the Natural Resources Body for Wales (Natural Resources Wales, NRW).	Well-being of Future Generations (Wales) Act 2016.

Term	Definition	Source of definition
Rate of return	The gain or loss of an investment over a certain period of time.	Corporate Finance Institute. 2020. Rate of return. Available from: <u>https://corporatefinan</u> <u>ceinstitute.com/resou</u> <u>rces/knowledge/finan</u> <u>ce/rate-of-return- guide/</u> . [Accessed 26 November 2020].
Recyclate	Material that is recyclable. Usually sent to, and processed in, a waste recycling plant or materials recovery facility.	Collins Dictionary. 2020. Definition of recyclate. Available from: <u>https://www.collinsdic</u> tionary.com/dictionar <u>y/english/recyclate</u> . [Accessed 26 November 2020]. Your Dictionary. 2020. Definition of recyclate. Available from: <u>https://www.yourdicti</u> <u>onary.com/recyclate</u> . [Accessed 26 November 2020].

Term	Definition	Source of definition
Regeneration	Of, relating to, or marked by being formed or created again	Merriam-Webster. 2020. Definition of degenerative. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/regenerative.</u> [Accessed 30 November 2020]. Merriam-Webster. 2020. Definition of degeneration. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/regenerate</u> . [Accessed 30 November 2020].
Regulation(s)	(in a legal sense, not the same as regulation of processes and services) A "regulation" is a binding legislative act. It must be applied in its entirety across Wales, the UK or EU (depending on the scale the regulation applies to).	Europa EU. 2016. European Union - Regulations, Directives and other acts. Available from: <u>http://europa.eu/eu- law/decision- making/legal- acts/index_en.htm</u> . [Accessed 26 November 2020].
Remediation / Remediate	(of contaminated land sites) A broad range of actions which can be used to reduce the risk from contaminated land.	Natural Resources Wales. 2016. The state of contaminated land in Wales [online]. Available from: <u>https://naturalresourc</u> <u>es.wales/media/6777</u> <u>08/nrw26759- contaminated-land- in-wales-pdf_english- 1.pdf</u> . [Accessed 26 November 2020].

Term	Definition	Source of definition
Resilience	(of ecosystems) The capacity of ecosystems to deal with disturbances, either by resisting them, recovering from them, or adapting to them, whilst retaining their ability to deliver services and benefits now and in the future.	NRW. 2016. Chapter 4: State of Natural Resources Report (SoNaRR): Assessment of the Sustainable Management of Natural Resources. Technical Report. Natural Resources Wales. Available from: <u>https://naturalresourc</u> <u>es.wales/evidence-</u> <u>and-data/research-</u> <u>and-reports/the-</u> <u>state-of-natural-</u> <u>resources-report-</u> <u>assessment-of-the-</u> <u>sustainable-</u> <u>management-of-</u> <u>natural-</u> <u>resources/?lang=en.</u> [Accessed 26 November 2020].
Response	(management responses) Human action, including policies, strategies and interventions, to address specific issues, needs, opportunities or problems. These may be legal, technical, institutional, economic or behavioural operating at various spatial and time scales.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.

Term	Definition	Source of definition
Rilling and gullying	Creation of deep ditches, channels or "rills" usually from erosion by water, a common form of erosion.	The Free Dictionary. 2020. Definition of gullying. Available from: <u>https://www.thefreedi</u> <u>ctionary.com/gullying</u> . [Accessed 26 November 2020]. The Free Dictionary. 2020. Definition of rill erosion. Available from: <u>https://encyclopedia2</u> .thefreedictionary.co <u>m/rill+erosion</u> . [Accessed 26 November 2020].
Risks	The likelihood of an outcome (usually negative) to the environment, or the potential impact of a pressure on the environment.	Environment Agency. 2015. Water for life and livelihoods. River Basin Management Plans Glossary. DEFRA.
Sealing	(soils) Soil sealing means the permanent covering of an area of land and its soil by impermeable artificial material (e.g. asphalt and concrete), for example through buildings and roads. Only part of a settlement area is actually sealed, as gardens, urban parks and other green spaces are not covered by an impervious surface.	European Commission. 2016. Soil sealing. Environment, Soil. Available from: <u>http://ec.europa.eu/e</u> <u>nvironment/soil/seali</u> <u>ng_guidelines.htm</u> . [Accessed 26 November 2020].

Term	Definition	Source of definition
Semi-natural habitats or features	Habitats in which the vegetation is mostly composed of native plant taxa, but where human land use and other activities play a key role in community development and maintenance. Examples are numerous, ranging across the spectrum of major habitat classes in Wales, including most forms of deciduous woodland, dwarf-shrub heathland, and many coastal formations. Habitat expressions least influenced by human activities are sometimes called 'near-natural'; at the other end of the spectrum certain degraded habitats, such as modified bog, are also treated as semi-natural.	Blackstock TH, Howe EA, Stevens JP, Burrows CR & Jones PS. 2010. Habitats of Wales: a comprehensive field survey 1979-1997. Cardiff: University of Wales Press.
Servitisation	Industry using their products to sell "outcome as a service" rather than as a one-off sale.	K3 Syspro. 2020. Jargon buster: Servitization in manufacturing. Available from: <u>https://www.k3syspro</u> .com/advice- centre/jargon- buster/servitization/#: ~:text=In%20its%20s implest%20terms%2 C%20servitization,th an%20a%20one%2D off%20sale.&text=Ma nufacturing%20busin esses%20can%20off er%20additional,the %20road%20as%20 a%20service. [Accessed 26 November 2020].

Term	Definition	Source of definition
Silviculture	Management of forest land for timber.	United Nations. 1997. Glossary of Environment Statistics. Studies in Methods Series F, No. 67. New York: United Nations. Available from: <u>https://unstats.un.org</u> <u>/unsd/publication/seri</u> <u>esf/seriesf_67e.pdf</u> [Accessed 7 December 2020].
Smart grids	Smart grids are energy networks that can automatically monitor energy flows and adjust to changes in energy supply and demand accordingly.	European Commission. 2020. Smart grids and meters. Available from: <u>https://ec.europa.eu/ energy/topics/market</u> <u>s-and- consumers/smart- grids-and- meters/overview_en</u> . [Accessed 24 November 2020].
Stack emissions	Stack emissions are those gases and solids that come out of the smoke stack (flue or chimney) after the incineration process.	Encylopedia.com. 2019. Explanation of stack emissions. Available from: <u>https://www.encyclop</u> edia.com/environme <u>nt/encyclopedias-</u> <u>almanacs-</u> <u>transcripts-and-</u> <u>maps/stack-</u> <u>emissions#:~:text=St</u> <u>ack%20emissions%2</u> <u>0are%20those%20g</u> <u>ases,wastes%20that</u> <u>%20contain%20orga</u> <u>nic%20compounds.</u> [Accessed 24 November 2020].

Term	Definition	Source of definition
State	(state of the ecosystem) In the context of SoNaRR, state refers to (collectively) the current extent and condition of the ecosystem.	Defined within SoNaRR.
Status	(e.g. ecological/biological/conservation /chemical status) A specified way of classifying environmental condition. Status is usually specified within Directives against certain environmental standards for that Directive and using specific methodologies e.g. Water Framework Directive and Habitats Directive.	Environment Agency. 2015. Water for life and livelihoods. River Basin Management Plans Glossary. DEFRA.
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.	United Nations. 2020. What is sustainable development? Sustainable development goals. Available from: <u>https://www.un.org/s</u> <u>ustainabledevelopme</u> <u>nt/development-</u> <u>agenda/#:~:text=Sust</u> <u>ainable%20develop</u> <u>ment%20has%20bee</u> <u>n%20defined,to%20</u> <u>meet%20their%20ow</u> <u>n%20needs.</u> [Accessed 24 November 2020].

Term	Definition	Source of definition
Sustainable drainage	Sustainable drainage systems (SuDS) are designed to mimic natural drainage by managing surface water run-off as close to source as possible.	NRW. 2020. Sustainable Drainage Systems (SuDS). Available from: <u>https://naturalresourc</u> <u>es.wales/guidance-</u> <u>and-advice/business-</u> <u>sectors/planning-</u> <u>and-</u> <u>development/advice-</u> <u>for-</u> <u>developers/sustainab</u> <u>le-drainage-systems-</u> <u>suds/?lang=en</u> . [Accessed 24 November 2020].
Sustainable management of natural resources	(SMNR) Using natural resources in a way and at a rate that maintains and enhances the resilience of ecosystems and the benefits they provide, in doing so, meet the needs of current generations without compromising the ability of future generations to meet their needs, and contribute to the achievement of the well-being goals set out in the Well-being of Future Generations Act. Also referred to as sustainable management.	Environment (Wales) Act 2016.

Term	Definition	Source of definition
Targets	A target is a clear expression of a policy priority, setting out exactly what the Government wants to have done and by when. Targets let those responsible for delivery know what needs to happen, so that they can plan, monitor and deliver the specified change.	Parliament 2010. Targets as a policy tool: key issues for the 2010 Parliament [online]. Available from: <u>http://www.parliamen</u> <u>t.uk/business/publica</u> <u>tions/research/key- issues-for-the-new- parliament/value-for- money-in-public- services/targets-as- a-policy-tool/. [Accessed 24 November 2020].</u>
Taxonomic	Relating to a system for naming and organizing things, especially plants and animals, into groups that have similar qualities.	Cambridge University Press. 2020. Definition of taxonomic. Available from: <u>https://dictionary.cam</u> <u>bridge.org/dictionary/</u> <u>english/taxonomic</u> . [Accessed 24 November 2020].
Third sector	Another name for the voluntary sector. The part of the economy that consists of non-profit-making organizations, as opposed to the public and private sectors.	Collins Dictionary, 2020. Definition of third sector. Available from: <u>https://www.collinsdic</u> <u>tionary.com/dictionar</u> <u>y/english/third-sector</u> . [Accessed 24 November 2020].
Threshold	(or tipping point) The point at which a small change in environmental conditions can result in a rapid change in an ecosystem. This is the point at which the change is likely to be irreversible.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.

Term	Definition	Source of definition
Tranquillity	An untroubled state, which is peaceful, calm and free from unwanted disturbances. This can refer to a state of mind or a particular environment. Tranquillity can be measured in terms of the absence of unwanted intrusions, or by a balancing of positive and negative factors. These include the presence of nature, feeling safe, visually pleasing surroundings and a relaxing atmosphere.	Welsh Government. 2018. Noise and soundscape action plan 2018 to 2023. Available from: <u>https://gov.wales/noi</u> <u>se-and-soundscape-</u> <u>action-plan-2018-</u> <u>2023-0</u> . [Accessed 24 November 2020].
Trends	A general direction in which something is developing or changing. In SoNaRR this refers to changes (positive or negative) seen over specified time periods in relation to extent and condition.	Oxford University Press 2016. Definition of Trend Oxford Dictionary [online]. Available from: <u>http://www.oxforddicti</u> <u>onaries.com/definitio</u> <u>n/english/trend</u> . [Accessed 24 November 2020].
Tributyl tin	An organic compound of tin used as a biocide especially in marine antifouling paints. Known as TBT.	Merriam-Webster. 2020. Definition of Tributyl Tin. Available from: <u>https://www.merriam- webster.com/dictiona</u> <u>ry/tributyltin</u> . [Accessed 24 November 2020].

Term	Definition	Source of definition
Urban cohesion	A set of factors with direct influence on urban development including planning processes, socio-economic and cultural factors.	Pinto AJ, Ramesar A. 2012. Urban cohesion: a guiding concept for new urban realities. In Ambivalent Landscapes. Sorting out the present by designing the future. Faculdade de Arquitectura UTL. C.Dias Coelho (Ed.).
Well-being	A context- and situation- dependent state, comprising basic material for a good life, freedom and choice, health and bodily well-being, good social relations, security, peace of mind, and spiritual experience.	UK NEA. 2011. UK National Ecosystem Assessment – Technical Report. Cambridge: UNEP- WCMC.
Well-being of Future Generations (Wales) Act	This Act is about improving the social, economic, environmental and cultural well-being of Wales. It will make the public bodies listed in the Act think more about the long-term, work better with people and communities and each other, look to prevent problems and take a more joined- up approach. This will help us to create a Wales that we all want to live in, now and in the future. To make sure we are all working towards the same vision, the Act puts in place seven well-being goals. Public Service Boards are required to put together Well- being Assessments to help implement action to improve well- being. Well-being Indicators will be used to measure success of actions.	Welsh Government 2015. Well-being of Future Generations (Wales) Act: The essentials. Available from: <u>https://www.futurege</u> <u>nerations.wales/wp- content/uploads/201</u> 7/02/150623-guide- <u>to-the-fg-act-en.pdf</u> . [Accessed 23 November 2020].

Term	Definition	Source of definition
Whole systems approach	Considering the interrelatedness of both problems and solutions. In the context of SoNaRR, this considers all the main social systems together – food, energy and mobility systems – that contribute most to environmental pressures.	EEA, 2019 (from structure and format of SoNaRR)
Zero-carbon	The reduction of carbon emissions to zero. Net zero carbon emissions are achieved when anthropogenic CO2 emissions are balanced globally by anthropogenic CO2 removals over a specified period.	IPCC, 2018: Annex I: Glossary [Matthews, JBR (ed.)]. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson- Delmotte V, Zhai P, Pörtner H-O, Roberts D, Skea J, Shukla PR, Pirani A, Moufouma-Okia W, Péan C, Pidcock R, Connors S, Matthews JBR, Chen Y, Zhou X, Gomis MI, Lonnoy E, Maycock T, Tignor M, Waterfield T (eds.)]. In Press