

NI Draft Programme for Government 2016-2021

Status Update for Environmental Indicators

July 2019

Environmental indicators in the PfG include:

Outcome 2: We Live and Work Sustainably – protecting the environment

- **Biodiversity:** % protected terrestrial area under favourable management
- **Biodiversity:** % of protected marine area under favourable management
- **Water Quality:** Levels of soluble reactive phosphorus in our rivers and levels of Dissolved Inorganic Nitrogen in our marine waters
- **Air Quality:** Annual mean nitrogen dioxide concentration at monitored urban roadside locations
- **Waste:** % household waste that is reused, recycled or composted
- Greenhouse gas emissions

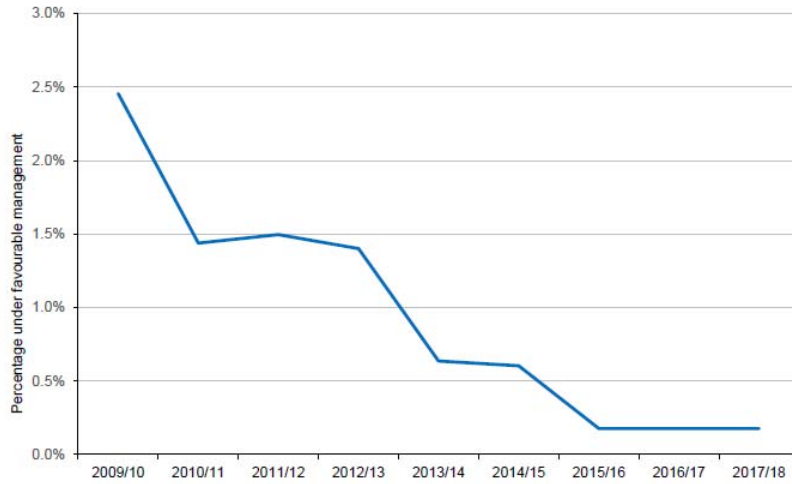
Outcome 12: We Connect People and Opportunities Through our Infrastructure

- **Transport:** % of all journeys which are made by walking/cycling/public transport

Biodiversity

Land under favourable management

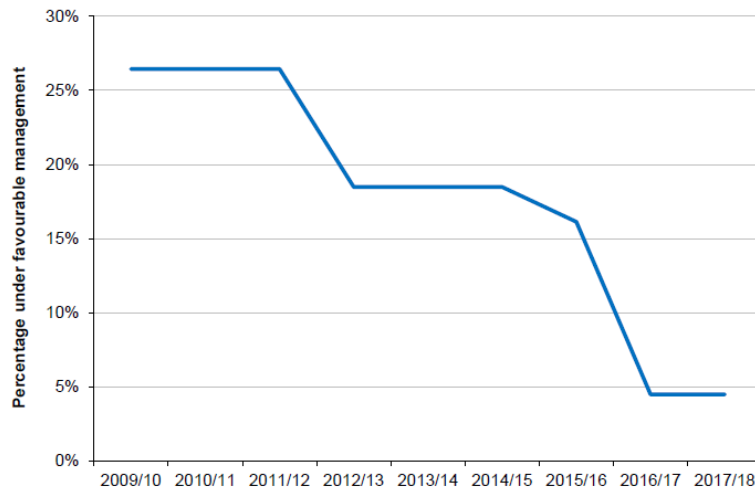
Figure 6.3 Percentage of protected terrestrial area under favourable management 2009-10 to 2017-18



Source: DAERA

Marine area under favourable management

Figure 6.4 Percentage of protected marine area under favourable management 2009-10 to 2017-18



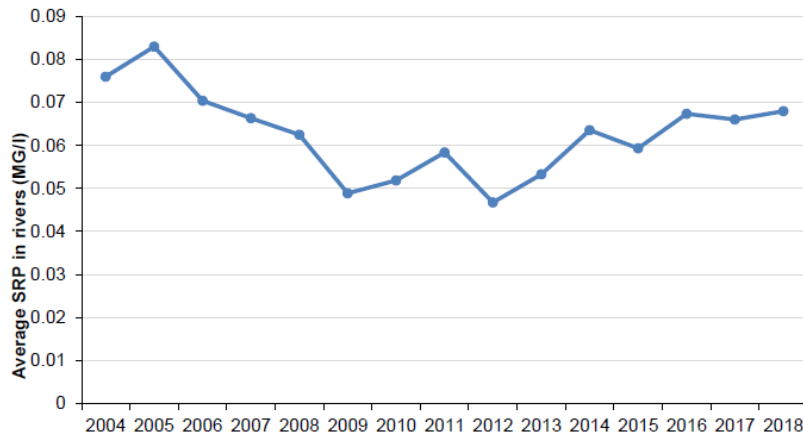
Source: DAERA

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-biodiversity>

Water Quality

River Quality – Soluble Reactive Phosphorus

Figure 3.5 soluble reactive phosphorus (SRP) in rivers, 2004 – 2018



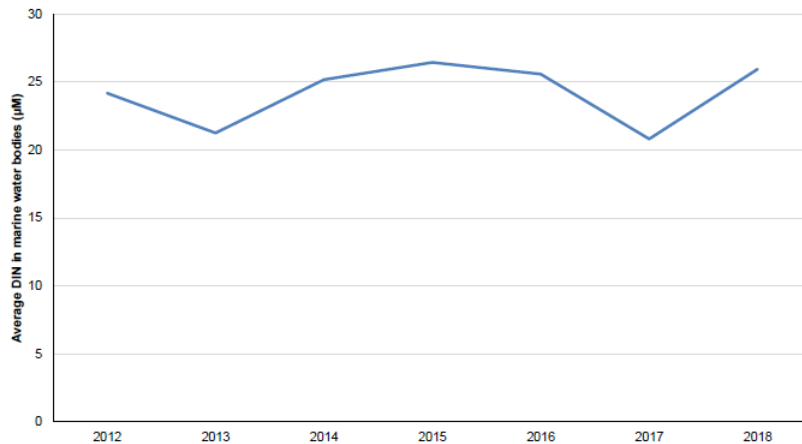
Source: DAERA

Soluble reactive phosphorus (SRP) is a plant nutrient, which, when present in rivers in elevated concentrations, can lead to accelerated growth of algae and other plants. The impact on the composition and abundance of plant species can have adverse implications for other aspects of water quality, such as oxygen levels, and for the characteristics of river habitats. These various changes can cause undesirable disturbances to populations of water animals, such as invertebrates and fish.

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-levels-soluble-reactive-phosphorus-our-rivers-and-levels>

Winter Dissolved Inorganic Nitrogen

Figure 4.5 Winter Dissolved Inorganic Nitrogen (Winter DIN), 2012 - 2018



Source: DAERA Marine and Fisheries Division

Marine nutrients are one of the key environmental variables controlling the growth of phytoplankton in coastal waters. In temperate regions, coastal waters nutrient concentrations are highest in winter, when agricultural run-off is highest due to increased rainfall, and algal growth is lowest due to lack of light and lower temperatures.

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-annual-mean-nitrogen-dioxide-concentration-monitored>

Waste

Percentage of household waste sent for preparing for reuse, dry recycling and composting by district council and waste management group

Authority	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Northern Ireland	27.7	31.9	34.4	35.6	37.3	39.7
Authority	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Northern Ireland	39.8	41.4	42.0	42.2	44.3	48.1

Source: Northern Ireland Environment Agency

Notes: Rates calculated by dividing total tonnage of household waste sent for preparing for reuse, dry recycling and composting by total household waste arisings/

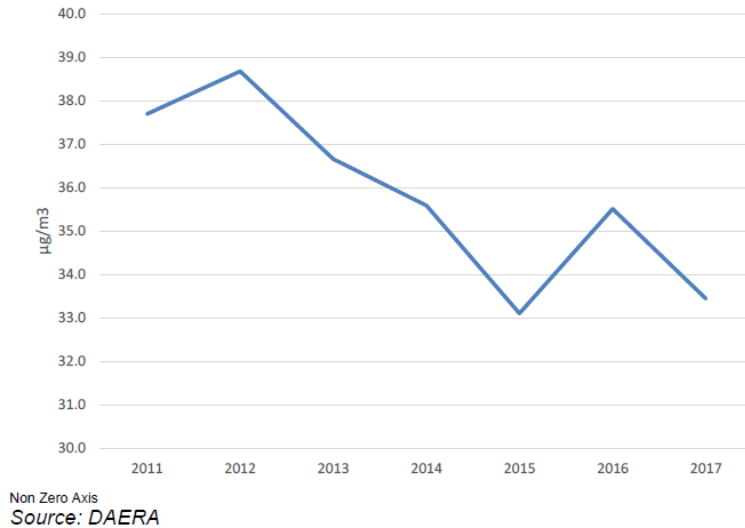
Waste sent for preparing for reuse has been included from 2012/13 onwards and the impact was small adding less than 0.2 percentage points to the NI rate.

Can also be accessed from <https://www.daera-ni.gov.uk/publications/northern-ireland-local-authority-collected-municipal-waste-management-statistics-2017> Table 17a

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-household-waste-reused-recycled-or-composted>

Air Quality

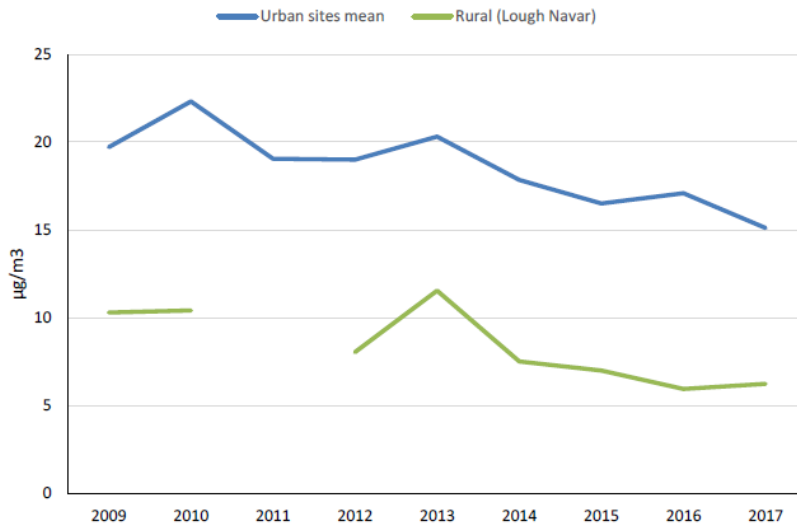
Figure 2.1c Annual mean concentration of nitrogen dioxide (NO₂), 2011 – 2017, 10 sites - Programme for Government indicator



[https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/Measurement Annex PfG 2016 2021 Annual mean nitrogen dioxide concentration at monitored urban roadside locations 0.pdf](https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/Measurement%20Annex%20PfG%202016%202021%20Annual%20mean%20nitrogen%20dioxide%20concentration%20at%20monitored%20urban%20roadside%20locations%200.pdf)

Particulate Matter

Figure 2.2 Annual mean concentration of particulate matter (PM₁₀), 2009 – 2017



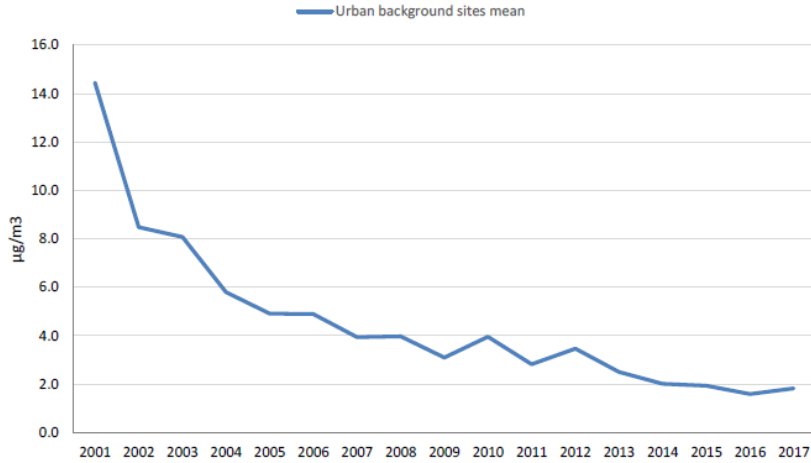
Source: DAERA

Note: There is no value for Lough Navar for 2011 due to low data capture.

Particulate matter in the atmosphere with a diameter of less than or equal to 10 microns (PM₁₀) arises from both man-made and natural sources. Road transport and fossil fuel combustion produce the majority of airborne particulate matter found in the air in urban locations. Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of symptoms in people with heart and lung diseases. In addition, they may carry surface-absorbed carcinogenic compounds into the lungs.

Sulphur Dioxide

Figure 2.5 Annual mean concentration of sulphur dioxide (SO₂), 2001 – 2017

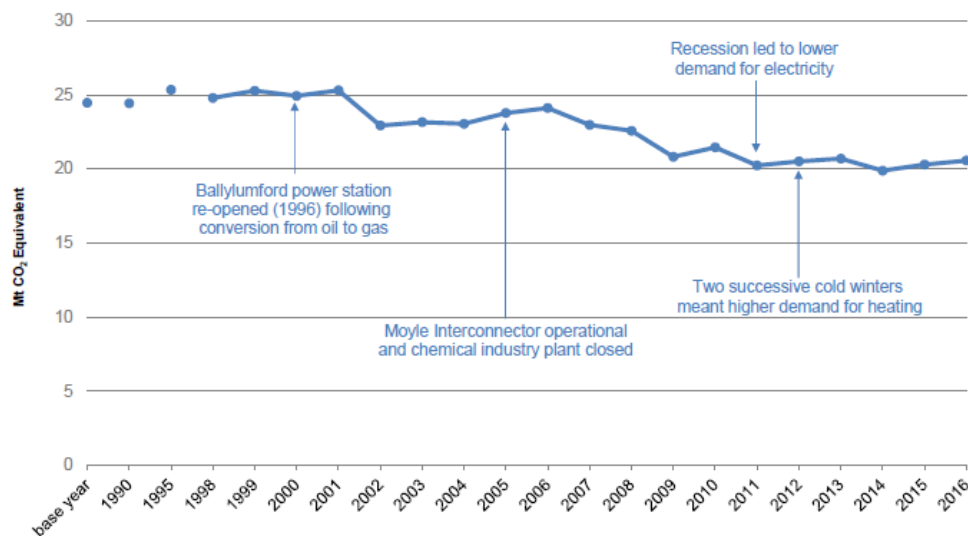


Source: DAERA

Sulphur dioxide (SO₂) is formed from the combustion of fuels containing sulphur (such as some coals and oils). The sharp, eye-watering smell of coal smoke is partly due to SO₂. High concentrations of this pollutant, for even short periods, can cause coughing, mucus secretion, and a worsening of symptoms for people with existing breathing problems such as asthma.

Greenhouse Gas Emissions

Figure 2.7 Total greenhouse gas emissions in Northern Ireland, 1990 – 2016



Note: The base year for UK greenhouse gas emissions is 1990 for carbon dioxide, methane and nitrous oxide, and 1995 for fluorinated gases.

Source: Aether and Ricardo Energy & Environment

Northern Ireland's greenhouse gas emissions were estimated to be 20.0 million tonnes of carbon dioxide equivalent. This was a decrease of 3% compared to 2016. The longer term trend showed a decrease of 18% compared to the base year. The base year is 1990 for all gases except fluorinated greenhouse gases, for which base year is 1995.

Units: MtCO ₂ e	
<u>BaseYear</u>	24.3
1990	24.3
1995	25.2
1998	24.7
1999	25.2
2000	24.9
2001	25.2
2002	22.9
2003	23.1
2004	23.0
2005	23.8
2006	24.1
2007	23.0
2008	22.6
2009	20.9
2010	21.4
2011	20.2
2012	20.4
2013	20.6
2014	19.8
2015	20.3
2016	20.7
2017	20.0

Also available from <https://www.daera-ni.gov.uk/publications/northern-ireland-greenhouse-gas-inventory-1990-2017-statistical-bulletin>

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-greenhouse-gas-emissions>

Transport

Baseline year is 2015: 25% of all journeys made were by walking, cycling or public transport in 2015.

Latest available year is 2018: Findings from the most recent Travel Survey for Northern Ireland data estimate that 24% of all journeys made were by walking, cycling or public transport in 2018. There has been no real change comparing 2018 to the baseline year (25% in 2015).

Proportion of all journeys taken where main mode¹ of travel is walking, cycling or public transport² 2008 to 2018

Year	% of all journeys taken by walking, cycling or public transport ²
2008	23%
2009	24%
2010	20%
2011	21%
2012	23%
2013	23%
2014	22%
2015	25%
2016	24%
2017	26%
2018	24%

1 Main mode is the form of transport used for the greatest length of the journey. For example, if the journey had 2 stages, walking 1 mile to the train station and then taking a 10 mile train journey, the train would be the main mode and therefore the journey is assigned to the "public transport" category.

2 Public Transport includes Ulsterbus, Metro, Other Bus, Northern Ireland Railways and Black Taxi.

Latest available year: 2018

<https://www.nisra.gov.uk/publications/pfg-2016-21-measurement-annex-all-journeys-which-are-made-by-walkingcyclingpublic>

Further statistical information can be accessed here:

<https://www.nisra.gov.uk/statistics/programme-government/programme-government-population-indicators>