Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat

Leap to Zero

An overview of current developments in the Netherlands

Funda Gökhan
funda.gokhan@rws.nl
+316 50 19 79 47
23 October 2025

Rijkswaterstaat (RWS)

EXECUTIVE AGENCY OF THE DUTCH MINISTRY OF INFRASTRUCTURE AND WATER MANAGEMENT

OVER 11.000 EMPLOYEES

YEARLY TURNOVER € 6,6 BILLION (2023)

PURCHASING POWER 3/4 BILLION ANNUALLY (PROJECTS & SERVICES)

Key figures assets

Main road network

- 3.072 km — Highways and motorways
- 5.862 km — Main carriageways
- 720 km — Connecting and parallel lanes
- 902 km — Entrance and exit lanes
- 281 km — Rush hour lanes
- 3.003 km — Lane control
- 188 km2 — Roadsides
- 6 — Traffic control centers
- 17 — Navigable aqueducts
- 747 — Fixed bridges
- 48 — Movable bridges
- 21 — Tunnel systems (30 tunnels)
- 2.931 — Overpasses and flyovers
- 38 — Wildlife crossings
- 12 — Ferry docks

Main waterway network

- 3.858 km — Sea access channels and sea corridors
- 3.415 km — Inland waterways
- 858 km — Traffic guidance
- 12 — Traffic control centers
- 126 — Lock chambers (86 locks)
- 245 — Fixed bridges
- 109 — Movable bridges
- 23 — Lighthouses (including 6 in Caribbean)

Main water system

- 90.132 km² — Surface water (including Caribbean)
- 2.992 km² — Inland waters
- 294 km — Coastline
- 6 — Storm surge barriers
- 5.185 ha — Flood planes
- 34 km — Primary dikes
- 124 km — Primary dams
- 45 km — Primary dunes
- 508 km — Non-primary dikes
- 20 — Pumping stations
- 10 — Weirs
- 88 — Discharge structures

Emission Reduction: Dutch program ZECE

1. Mitigation of climate change
   → reduction of **greenhouse gas emissions** (CO_2(eq))
2. Conservation of biodiversity
   → reduction of **nitrogen emissions** (NO_x, NH_3 etc.)
3. Air quality improvement
   → reduction of **particulate matter emissions** (PM_{10} etc.)
4. *Occupational health*
   → *reduction of carcinogenic diesel exhaust emissions*
   → *reduction of environmental noise pollution*

Ambitions 2030

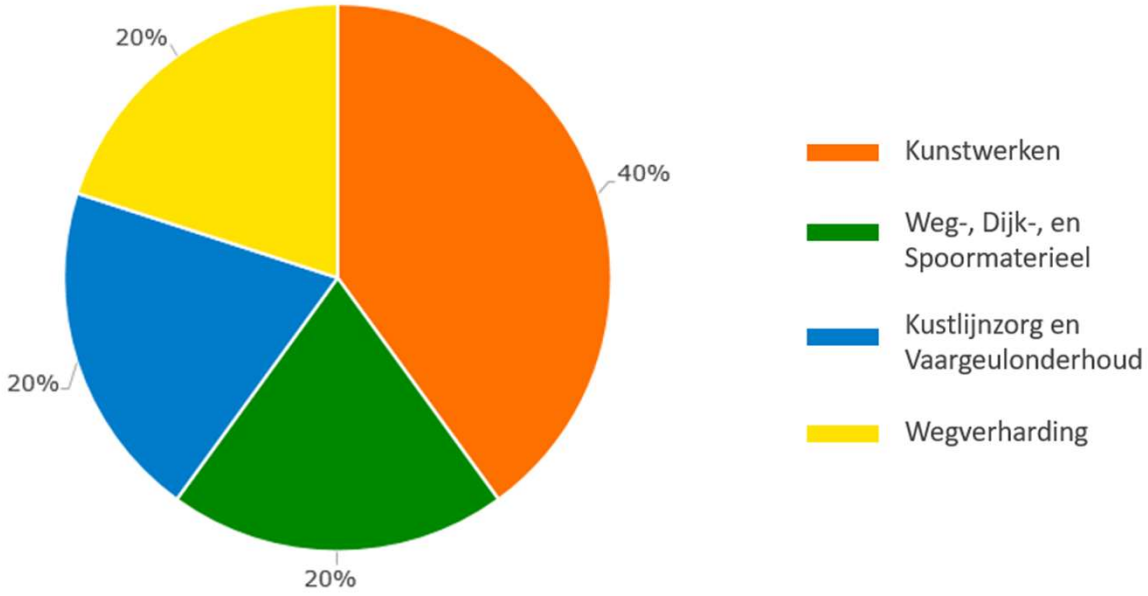
- 0,4 Mton CO_2(eq) reduction
- 60% NOx reduction
- 75% health improvement

Emissions from construction equipment in the Netherlands

	Equipment	NO_x	CO_2	PM_{10}
Mobile machinery (2020)	150.000	11 kt	1,5 Mt	414 t
Road vehicles (2020)	277.300	6,3 kt	1,8 Mt	245 t
Floating equipment (2021)	350	4,2 kt	0,3 Mt	90 t
Total		21,5 kt	3,6 Mt	749 t

Source: TNO (2023) | Transitiepaden Schoon en Emissieloos Bouwen (SEB)

Emissions resulting from RWS infrastructure projects



Uitstoot RWS

0,8 Mton CO_2

*Circa **20%** van de totale GWW-sector*

Emission requirements for construction equipment (basic tier)

Table 1 Basic tier, mobile machinery

	Period 1	Period 2	Period 3	Period 4
	1 January 2023 – 31 December 2024	1 January 2025 – 31 December 2027	1 January 2028 – 31 December 2029	1 January 2030 onwards
Light duty (power <19kW)	No requirements	No requirements	100% ZE	100% ZE
Light duty (19-37kW)	Stage IIIa	Stage IIIa	100% ZE	100% ZE
Light duty (37-56kW)	Stage IIIb	Stage IIIb	100% ZE	100% ZE
Medium duty (56-130kW)	Stage IIIb	Stage IV with soot filter [1]	Stage IV with soot filter [1]	Stage IV with soot filter [1] (2030) 100% ZE (2035)
Heavy duty (130-560kW)	Stage IIIb	Stage IV with soot filter [1]	Stage IV with soot filter [1]	Stage IV with soot filter [1] 100% ZE (2035)
Specialist (lifespan >15 years) Very heavy duty (>560kW)	No requirements	No requirements	Catalytic converter and soot filter [1]	Catalytic converter and soot filter [1] 100% ZE (2035-2040)
Stationary machinery (generators, pumps, tower cranes)	As for mobile machinery	As for mobile machinery	100% ZE <560 kW >560kW as for mobile machinery	100% ZE <560 kW >560kW same as requirements for mobile machinery

[1] 'Catalytic converter' means an effective SCR catalytic converter. 'Soot filter' means a properly functioning, closed diesel particulate filter (DPF) system.

Table 3 Basic tier, construction logistics

	Period 1	Period 2	Period 3	Period 4
	1 January 2023 – 31 December 2024	1 January 2025 – 31 December 2027	1 January 2028 – 31 December 2029	1 January 2030 onwards
N1 - vans	Euro 5	Euro 6	100% ZE	100% ZE
N2 - light goods vehicles	Euro V	Euro VI	Euro VI	100% ZE
N3 - heavy goods vehicles	Euro V	Euro VI	Euro VI	Euro VI

- All projects
- Contract requirements
- Hydrotreated vegetable oil (HVO)

Emission requirements for construction equipment (ambitious tier)

Table 2 Ambitious tier, mobile machinery

	Period 1	Period 2	Period 3	Period 4
	1 January 2023 – 31 December 2024	1 January 2025 – 31 December 2027	1 January 2028 – 31 December 2029	1 January 2030 onwards
Share of frontrunner projects [1]	5-25%	25-50%	50-80%	75-95%
Growth in use of zero-emission machinery				
(percentage of operations done with ZE machinery, operating hours x power, in a project)	10-30%	30-70%	70-90%	90-100%

[1] As a percentage of commissioning body's project portfolio.

Table 4 Ambitious tier, construction logistics

	Period 1	Period 2	Period 3	Period 4
	1 January 2023 – 31 December 2024	1 January 2025 – 31 December 2027	1 January 2028 – 31 December 2029	1 January 2030 onwards
Share of frontrunner projects [1]	5-25%	25-50%	50-80%	75-95%
Growth in use of ZE machinery				
N1 - vans	50% ZE	100% ZE	100% ZE	100% ZE
N2 - light goods vehicles	10% ZE	50% ZE	100% ZE	100% ZE
N3 - heavy goods vehicles	1% ZE	10% ZE	30% ZE	100% ZE

[1] As a percentage of commissioning body's project portfolio

- Intention for selection

Applied Award Criteria (Sustainability)

- CO_2 Performance Ladder (always if possible)
- Environmental Cost Indicator (ECI) when equipement substantial
- Policy construction projects (at least 35% total quality value)
- Policy operation & maintenance projects (at least 25% total quality value)

- ECI value
- ECI or ECI value + extra award criteria (CO2/eq) if material substantial 40% than equipment

Evaluation

- Procurement Strategy
- Award criteria/RFNBO’s