

Central Statistics Office

Environmental Expenditure Survey 2022 – Survey Booklet

This survey booklet has been prepared by the CSO to assist you in completing the Environmental Expenditure Survey questionnaire.

Purpose

The purpose of this survey is to collect information on Irish enterprises' environmental expenditure in 2022. This survey aims to obtain information on items of expenditure with a primary or clearly identifiable environmental purpose. Environmental expenditure is divided into two main categories:

- *Environmental Protection Expenditure*, and
- *Resource Management Expenditure*.

The questionnaire has two sections, one on each category of expenditure. The data provided will be used to meet reporting obligations under EU Regulation 691/2011, as amended by EU Regulation 538/2014, on environmental-economic accounts.

Statutory Basis

The survey is conducted under the Statistics (Environmental Expenditure Survey) Order 2024 (S.I. No. 93 of 2024), which was made under the Statistics Act, 1993.

You are obliged by law to complete this form and submit it to the CSO.

Confidentiality

All information supplied to the CSO is treated as strictly confidential in accordance with Section 33 of the Statistics Act, 1993, and will be used for statistical purposes only.

Information Requested under the Survey

To complete this survey, you will need to:

- identify your enterprise's environmental expenditure,
- classify it according to **type of expenditure**, and
- classify it according to **environmental purpose**.

Monetary units

Please enter amounts of environmental expenditure in EURO. Exclude VAT. Please only enter numeric data and avoid commas.

Contact Details

If you need help or advice on filling in the questionnaire, please email us at ENV-EXP@cso.ie or contact the CSO Helpdesk for the survey at +353 (1) 4984213.

1. Environmental Protection Expenditure

Which expenditure should be included?

Environmental Protection Expenditure is expenditure with the main aim of preventing, reducing, treating, controlling or measuring pollution, or any other harm to the environment, caused by the activities of the enterprise. It also includes expenditure on repairing damage already caused to the environment by production processes.

Example: Waste collection charges are an example of environmental protection expenditure.

Most expenditure will be on waste and wastewater services, preventing or reducing air and noise pollution, and land remediation. There may also be costs relating to biodiversity protection, protection against radiation, and research into environmental protection activities or technologies.

Environmental protection expenditure includes the payroll costs of staff who carry out environmental work, and the purchase of environmental consultancy and environmental awareness or training services.

Environmental protection expenditure includes both investment in equipment aimed at reducing or preventing pollution (capital), and the costs of running such equipment (operational). These two types of expenditure are reported separately in the questionnaire.

Which expenditure should not be included?

Expenditure on actions that are aimed primarily at improving the work environment are not included. For example, if the primary purpose of the expenditure is health and safety in the workplace, then the expenditure should not be included in this survey.

The following types of expenditure should **not** be included:

- expenditure on health and safety;
- environmental taxes;
- VAT on environmental purchases;
- depreciation of environmental equipment;
- expenditure on waste permits or regulatory charges.

If the purchase of environmental protection equipment was grant-aided please only include the net cost to the company, i.e. subtract the amount of funding received as a grant.

Capital Expenditure on Environmental Protection

Capital expenditure is expenditure on the purchase or repair of physical assets such as machinery, land, buildings, and vehicles.

Capital expenditure on environmental protection includes investment in equipment aimed at preventing, treating or measuring pollution, and investment in research and development work relevant to such technologies. It also includes the clean-up costs of landfill sites and remediation of industrial and mining sites.

Two types of capital expenditure on environmental protection are distinguished in the survey:

- pollution treatment equipment, and

- pollution prevention equipment.

1.1 Purchases of Pollution Treatment Equipment

Pollution treatment equipment is for treating or measuring emissions and waste from production processes. It deals with the by-products of production processes *after they have been created*. Its purpose is to reduce or control pollutants that result from normal production.

Example: Air scrubbers used to remove air pollutants from power plants.

Other examples include purchases of:

- exhaust air filters, fume hoods, odour mask systems;
- equipment in wastewater treatment plants, flow monitoring equipment, filter presses;
- equipment for storage and transport of waste, waste treatment equipment, waste incinerators;
- equipment for clean-up, controlling and measuring the quality of soil, surface water and ground water;
- equipment for measuring soil erosion and soil composition;
- materials and measures to reduce noise pollution (e.g. embankments, hedges, soundproofing of machines, noise screens, barriers, sound-proofing of buildings, sound-proof windows);
- equipment for the containment and disposal of high-level radioactive waste;
- research and development aimed at the protection of air, water, soil and groundwater, species and habitats, protection against radiation, reduction of noise and vibration, reduction of waste.

1.2 Purchases of Pollution Prevention Equipment

Pollution prevention (cleaner) technology is equipment that is more environmentally friendly (i.e. produces less waste or emissions) than standard technology.

Example: Any equipment that is cleaner and more environmentally friendly than the standard equipment used in your production processes is included here.

Cleaner production equipment involves adapted or new processes that reduce pollution before it is created.

Operating Expenditure on Environmental Protection

Operating expenditure on environmental protection includes:

- payments to other companies for waste collection services, wastewater management services, other environmental services and leasing environmental protection equipment;
- the costs of running environmental protection equipment, e.g. fuel or electricity costs, replacement filters;
- the payment of wages to environmental workers.

1.3 Purchases of environmental protection products and services

Example: Waste water collection charges.

Other examples of environmental protection services which are likely to be purchased externally include:

- air quality monitoring and measurement;
- wastewater analysis, collection and treatment;

- cleaning of septic tanks;
- waste collection and treatment;
- noise monitoring and measurement;
- environmental consultancy;
- environmental training.

1.4 Costs of running environmental protection equipment

Example: Expenditure on filters used for air pollution treatment equipment is an example of day-to-day expenditure on running environmental protection equipment.

Other examples include purchases of chemicals or other raw materials, spare parts for environmental protection machines and installations, and fuel or electricity costs of running environmental protection equipment if they can be reported separately.

1.5 Environmental protection staff costs

This includes wage costs for environmental staff who are responsible for the operation and maintenance of environmental equipment, the measurement and monitoring of pollution levels, etc.

Environmental Protection Domains

Each item of environmental protection expenditure is associated with an environmental protection domain.

The survey asks you to provide a breakdown of your enterprise's expenditure by domain. Your best estimate is acceptable if there is no precise information.

Nine environmental domains are distinguished, and examples of each are provided below.

(a) Protection of ambient air and climate

- Emission/odour/concentration monitors;
- Equipment and installations for treating gaseous emissions,
 - e.g. filters, scrubbers, centrifuges, purifiers, condensers;
- Equipment to improve the dispersion of air pollutants into ambient air,
 - e.g. higher stacks;
- In-house labour costs of monitoring air pollution;
- Purchases of new electric cars and hybrid vehicles.

(b) Wastewater management

- Equipment in wastewater treatment plants;
- Equipment for cleaning discharges or detecting leaks;
- Equipment for the measurement of discharges or pollutant concentrations;
- Equipment for the storage and transport of wastewater,
 - e.g. septic tanks, mains sewage network connections;
- Labour costs of operating and maintaining wastewater treatment plants;
- Wastewater collection services provided by external companies.

(c) Waste management

- Equipment for storage or transport of waste,

- e.g. vehicles/containers used strictly for carrying/storing waste;
- Treatment or disposal equipment,
 - e.g. recycling equipment, waste compressors, waste incinerators;
- Equipment for sorting and separating waste;
- In-house labour costs of sorting and separating waste;
- Waste collection services provided by external companies.

(d) Protection and remediation of soil, groundwater and surface water

- Cleaning of polluted soil;
- Measures and equipment for biological treatment of soil;
- Measures and equipment for analysis, measurement and monitoring of soil pollutant levels;
- Measures and equipment for measuring the quality of surface water and ground water;
- Landfill remediation;
- Site remediation by mining or manufacturing enterprises.

(e) Noise and vibration abatement

- Screens and other barriers to absorb and reduce noise;
- Soundproof windows;
- Equipment or suspension systems to absorb vibrations, silencers, noise measurements.

(f) Protection of biodiversity and landscape

- Land purchases for nature conservation purposes;
- Reforestation schemes for conservation of species;
- Rehabilitation of landscapes following quarrying of rock, sand and other minerals;
- Planting of tree and shrub corridors around the perimeter of factories or business premises.

(g) Protection against radiation

- Handling, transportation and treatment of high-level radioactive waste, such as radionuclides used in hospitals and research establishments;
- Measuring, controlling and monitoring ambient radioactivity and radioactivity due to high-level radioactive waste;
- Management of radiation monitoring and measurement schemes.

(h) Research and development

- Identification and analysis of sources of pollution, dispersion of pollutants in the environment, effects of pollution on human beings, the species and the biosphere;
- R&D for the prevention and elimination of all forms of pollution;
- R&D for equipment and instruments of pollution measurement and analysis.

(i) Other environmental protection activities

- General environmental education or training;
- Environmental certification processes;
- Environmental consultancy.

2. Resource Management Expenditure

Which expenditure should be included?

Resource Management Expenditure is expenditure on activities that are aimed at preserving and maintaining the stock of natural resources.

Example: Expenditure on water leak detection and repair is an example of resource management expenditure.

Expenditure on resource management activities is likely to mainly relate to activities such as recycling, renewable energy generation and energy efficiency. It can also involve water management; forest, flora and fauna management; and research and development.

Resource management expenditure includes the payroll costs of staff who carry out environmental work relating to resource management, and the purchase of consultancy, awareness or training services.

Resource management expenditure includes both investment in equipment aimed at managing natural resources, and the costs of running such equipment. These two types of expenditure are reported separately in the questionnaire.

Which expenditure should not be included?

If your company spends money on recycling with the primary purpose of dealing with waste rather than creating raw materials for new products, then please include the expenditure under Environmental Protection Expenditure – Waste Management (see 1.5.3).

The following types of expenditure should **not** be included:

- water supply charges;
- environmental taxes;
- VAT on environmental purchases;
- depreciation of resource management equipment.

If the purchase of resource management equipment was grant-aided please only include the net cost to the company, i.e. subtract the amount of funding received as a grant.

2.1 Capital Expenditure on Resource Management

Capital expenditure on resource management is expenditure on the purchase or repair of assets such as machinery, land, buildings and vehicles that are used to reduce consumption of natural resources.

Example: The purchase of a wind turbine or solar panel is an example of capital expenditure on resource management, as it will be used to generate energy from a renewable source.

This includes machinery, etc. for the production or purpose of:

- thermal insulating materials;
- heat pumps;
- renewable electricity;
- materials sorting and recovery; and
- sea water desalination.

R&D for resource management is also included.

Operating Expenditure on Resource Management

Operating expenditure on resource management activities includes the payment of wages to staff, payments for fixing water leaks, payments for materials and fuel used as inputs to produce resource management products, and operating costs of resource management equipment.

Operating expenditure on resource management includes:

- payments to other companies for leak detection services, rainwater storage tanks, recycled goods, components of wind turbines and other environmental services such as environmental consultancy or leasing resource management equipment;
- the costs of running resource management equipment, e.g. cost of raw materials;
- the payment of wages to environmental workers.

2.2 Purchases of Resource Management Products and Services

Example: Expenditure on energy conservation consultants.

Other examples include:

- leak detection services;
- rainwater storage tanks;
- environmental consultants;
- recycled paper, plastic, glass, metal or wood products;
- components of wind turbines and solar panels.

2.3 Costs of operating resource management equipment

Example: Expenditure on spare parts for solar panels.

Examples include purchases of spare parts for resource management machines and installations, and fuel or electricity costs if they can be reported separately.

2.4 Resource management staff costs

Resource management staff costs are the costs of employing staff to operate and maintain resource management equipment (see 2.3).

Resource Management Domains

Each item of resource management expenditure is associated with a resource management domain.

The survey asks you to provide a breakdown of your enterprise's expenditure by domain. Your best estimate is acceptable if there is no precise information.

Ten resource management domains are distinguished, and examples of each are provided below.

(a) Management of water

- Water restoration, measuring and monitoring equipment;
- Closed-circuit cooling systems;
- Sea water desalination plants;

- Rainwater storage tanks;
- Detecting and fixing leaks.

(b) Management of forest areas

- Forest restoration, measuring and monitoring equipment;
- Certified management systems applied to cultivated and non-cultivated forests;
- Forest thinning.

(c) Minimisation of the intake of forest resources

- Paper recycling equipment;
- Wood recycling equipment.

(d) Management of wild flora and fauna

- Adaptation of structures to prevent collisions by birds in flight;
- Repopulation of stocks of wild flora and fauna;
- Enforcement of fishing quotas;
- Flora and fauna measuring and monitoring equipment.

(e) Production of energy from renewable sources

- Small, mini- and micro-hydroelectric facilities;
- Solar energy systems or equipment;
- Wind energy systems or equipment;
- Biomass energy (e.g. energy crops);
- Geothermal systems;
- Wave and tidal systems;
- Installation of renewable energy generation equipment.

(f) Heat/energy saving and management

- Thermal insulation;
- Combined Heat and Power (CHP);
- Heat pumps.

(g) Minimisation of the intake of fossil resources for non-energy purposes

- Equipment to recycle plastic;
- Recycled plastic materials.

(h) Management of minerals

- Ovens for metal recycling;
- Equipment to recycle glass;
- Equipment and other costs of scrap metal sorting and recovery;
- Recovery of materials (other than timber) from demolition sites;
- Production of recycled metal goods.

(i) Research and development

- R&D on renewable technology, energy efficiency, native forest management systems, water conservation techniques, etc.

(j) Other natural resource management activities

- Consultancy, training or awareness-raising activities.