Qualification Specification

# ProQual Level 6 Diploma in Sustainability and Environment Management

# ProQual Level 6 Diploma in Sustainability and Environmental Management

This qualification is part of ProQual's broad offer of qualifications in the Sustainability Sector.

To find out more about other qualifications in this, or any other sector, or for our latest fees; check our Fees Schedule via the QR code below:

**Scan Here**

# Contents

# Introduction

The ProQual Level 6 Diploma in Sustainability and Environmental Management provides a nationally recognised qualification for candidates who are responsible for developing and applying environmental & sustainability management procedures day-to-day in their organisation. They may be a staff member, supervisor or manager looking to improve their knowledge and skills.

The aims of this qualification are:

- To allow candidates to develop knowledge of environmental and sustainability management procedures.
- To provide candidates with opportunities to apply their knowledge of environmental and sustainability management in their organisation.
- To facilitate career development for those interested in environmental and sustainability management.

The awarding body for this qualification is ProQual AB. This qualification has been approved for delivery in England. The regulatory body for this qualification is Ofqual, and this qualification has been accredited onto the Regulated Qualification Framework (RQF), and has been published in Ofqual's Register of Qualifications.

# Qualification Profile

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|---|---|
| **Qualification Title:** | ProQual Level 6 Diploma in Sustainability and Environmental Management |
| **Qualification Number:** | 610/5229/2 |
| **Level:** | 6 |
| **Total Qualification Time (TQT):** | 600 Hours<br>60 Credits |
| **Guided Learning Hours (GLH):** | 300 Hours |
| **Assessment:** | Pass / Fail |
| | Internally assessed and verified by centre staff |
| | Externally verified by ProQual Verifiers |
| **Qualification Start Date:** | 01/02/2025 |
| **Qualification Review Date:** | 01/02/2028 |

# Learner Profile

There are no formal academic entry requirements for this qualification. Centres should carry out an initial assessment of candidate skills and knowledge to identify and gaps and inform the assessment plan.

Candidates must be aged 19 years or older on the day they are registered for this qualification. Centres are reminded that no assessment should take place before candidates are registered.

Candidates who complete this qualification may progress onto the ProQual Level 7 Diploma in Environmental Management.

# Qualification Structure

This qualification consists of **seven** mandatory units. Candidates must complete all mandatory units to complete this qualification.

| Unit Number | Unit Title | Level | TQT | GLH |
|---|---|---|---|---|
| Mandatory Units – Candidates must complete **all** units in this group. | | | | |
| L/651/4476 | Principles of Environmental Sustainability | 6 | 100 | 50 |
| M/651/4477 | Environmental Policy, Law and International Regulations | 6 | 100 | 50 |
| R/651/4478 | Environmental Impact Assessments, Corporate Sustainability and Responsibility | 6 | 100 | 50 |
| T/651/4479 | Energy Management and Efficiency | 6 | 50 | 25 |
| D/651/4480 | Waste Management and Pollution Control | 6 | 50 | 25 |
| F/651/4481 | Environmental Risk and Crisis Management | 6 | 100 | 50 |
| H/651/4482 | Innovation and Technology for Sustainability Reporting and Performance Measurement | 6 | 100 | 50 |

# Centre Requirements

Centres must be approved to deliver this qualification. If your centre is not approved to deliver this qualification, please complete and submit the **ProQual Additional Qualification Approval Form.**

Materials produced by centres to support candidates should:

- Enable them to track their achievements as they progress through the learning outcomes and assessment criteria.
- Provide information on where ProQual's policies and procedures can be viewed.
- Provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence.

Centres must have the appropriate equipment to enable candidates to carry out the practical requirements of this qualification.

# Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title:

**ProQual Level 6 Diploma in Sustainability and Environmental Management**

### Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

### Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

### Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement.

# Assessment Requirements

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence can include:

- Observation report by assessor
- Assignments/projects/reports
- Professional discussion
- Witness testimony
- Candidate product
- Worksheets
- Record of oral and written questioning
- Recognition of Prior Learning

Candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

Centre staff assessing this qualification must be **occupationally competent** and qualified to make assessment decisions. Assessors who are suitably qualified may hold a qualification such as, but not limited to:

- ProQual Level 3 Certificate in Teaching, Training and Assessment.
- ProQual Level 3 Award in Education and Training.
- ProQual Level 3 Award in Assessing Competence in the Work Environment. *(Suitable for assessment taking place in a working salon only.)*
- ProQual Level 3 Award in Assessing Vocational Achievement. *(Suitable for assessment taking place in a simulated training environment only.)*

Candidate portfolios must be internally verified by centre staff who are **occupationally knowledgeable** and qualified to make quality assurance decisions. Internal verifiers who are suitably qualified may hold a qualification such as:

- ProQual Level 4 Award in the Internal QA of Assessment Processes and Practice.
- ProQual Level 4 Certificate in Leading the Internal QA of Assessment Processes and Practice.

**Occupationally competent** means capable of carrying out the full requirements contained within a unit. **Occupationally knowledgeable** means possessing relevant knowledge and understanding.

# Enquiries, Appeals and Adjustments

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

# Units – Learning Outcomes and Assessment Criteria

| **Title:** | Principles of Environmental Sustainability | | | **Level:** | 6 |
|---|---|---|---|---|---|
| **Unit Number:** | L/651/4476 | **TQT:** | 100 | **GLH:** | 50 |

| **Learning Outcomes** *The learner will be able to:* | | **Assessment Criteria** *The learner can:* | |
|---|---|---|---|
| 1 | Understand the key concepts of environmental sustainability. | 1.1 | Define environmental sustainability and its key principles |
| | | 1.2 | Explain the interdependence of human, economic, and ecological systems in environmental sustainability. |
| | | 1.3 | Discuss the historical development and evolution of sustainability concepts. |
| | | 1.4 | Identify key global environmental challenges affecting sustainability, including:<br>• Climate change.<br>• Biodiversity loss.<br>• Resource depletion. |
| | | 1.5 | Critically compare various definitions and frameworks of sustainability, for example weak vs. strong sustainability. |
| | | 1.6 | Analyse the relationship between environmental, social, and economic sustainability |
| 2 | Assess the role of policy and legislation in promoting environmental sustainability. | 2.1 | Explain the role of national and international environmental policies and regulations in promoting sustainability. |
| | | 2.2 | Evaluate the effectiveness of key environmental legislation, including but not limited to:<br>• The Paris Agreement.<br>• The Kyoto Protocol. |

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| 2 | *Continued.* | 2.3 | Discuss the role of environmental impact assessments (EIAs) and sustainability reporting. |
| | | 2.4 | Analyse how government policies influence business sustainability practices |
| | | 2.5 | Identify and assess the role of non-governmental organizations (NGOs) and international bodies in shaping environmental policies. |
| | | 2.6 | Critically evaluate the strengths and weaknesses of existing environmental regulations in addressing sustainability challenges |
| | | 2.7 | Discuss the implementation challenges and enforcement of environmental policies. |
| 3 | Explore sustainable practices in business and industry. | 3.1 | Identify key sustainable practices within various industries, including but not limited to:<br>• Renewable energy.<br>• Waste Management.<br>• Green buildings. |
| | | 3.2 | Explain the concept of corporate social responsibility (CSR) and its relation to environmental sustainability. |
| | | 3.3 | Assess the impact of sustainable practices on business profitability and competitive advantage. |
| | | 3.4 | Evaluate the adoption of sustainability reporting frameworks by businesses. |
| | | 3.5 | Examine how businesses integrate environmental sustainability into their supply chains. |
| | | 3.6 | Analyse case studies of businesses that have successfully implemented sustainability practices |
| | | 3.7 | Discuss barriers to the widespread adoption of sustainable business practices |

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| 4 | Analyse environmental sustainability strategies at local, national, and global levels. | 4.1 | Compare local, national, and global sustainability strategies |
| | | 4.2 | Discuss Assess the challenges and opportunities in implementing sustainability strategies at different levels |
| | | 4.3 | Identify key stakeholders involved in environmental sustainability at local, national and global level. |
| | | 4.4 | Analyse the role of technology and innovation in shaping sustainability strategies. |
| | | 4.5 | Evaluate the integration of sustainable practices in urban and rural planning. |
| | | 4.6 | Discuss the role of education and awareness in promoting sustainability at various levels |
| | | 4.7 | Analyse the impact of global sustainability agreements on local and national policy |
| 5 | Evaluate the environmental, social, and economic dimensions of sustainability. | 5.1 | Compare environmental, social, and economic dimensions of sustainability. |
| | | 5.2 | Assess the impacts of environmental decisions on economic and social outcomes. |
| | | 5.3 | Discuss how sustainable development can be achieved without compromising social equity or economic growth. |
| | | 5.4 | Evaluate the implications of sustainability decisions for various stakeholders, including communities, businesses, and governments. |
| | | 5.5 | Analyse case studies that demonstrate the integration of environmental, social, and economic considerations. |
| | | 5.6 | Identify and evaluate trade-offs in achieving sustainability objectives. |
| | | 5.7 | Explain the concept of sustainable development goals (SDGs) and their application to environmental sustainability. |

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| 6 | Examine future trends in environmental sustainability and innovation | 6.1 | Identify emerging environmental sustainability trends and technologies, including:<br>• Circular economy.<br>• Green technology.<br>• Sustainable agriculture. |
| | | 6.2 | Analyse the role of innovation in driving sustainability efforts |
| | | 6.3 | Evaluate the potential impact of emerging technologies on sustainability outcomes. |
| | | 6.4 | Discuss the role of businesses and governments in fostering innovation for sustainability. |
| | | 6.5 | Assess the potential for sustainable development to address future global challenges. |

## Additional Assessment Information

This unit is **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

| Title: | Environmental Policy, Law and International Relations | | | Level: | 6 |
|---|---|---|---|---|---|
| Unit Number: | M/651/4477 | TQT: | 100 | GLH: | 50 |

| Learning Outcomes<br>*The learner will be able to:* | | Assessment Criteria<br>*The learner can:* | |
|---|---|---|---|
| 1 | Understand the key principles and frameworks of environmental policy. | 1.1 | Explain the key concepts of environmental policy and sustainability |
| | | 1.2 | Identify the various types of environmental policies, including national, regional and local policies. |
| | | 1.3 | Discuss the role of government and NGOs in shaping environmental policy. |
| | | 1.4 | Evaluate the effectiveness of different policy approaches to environmental sustainability |
| | | 1.5 | Analyse the principles of integrated environmental management in policy formulation |
| | | 1.6 | Identify the main global environmental policy frameworks, including:<br>• Agenda 21.<br>• UN Sustainable Development Goals. |
| 2 | Critically analyse environmental laws and their application in different jurisdictions. | 2.1 | Compare environmental laws in different jurisdictions. |
| | | 2.2 | Evaluate the effectiveness of environmental laws in addressing contemporary environmental issues. |
| | | 2.3 | Analyse the role of environmental regulators and enforcement agencies in policy implementation. |
| | | 2.4 | Discuss the legal frameworks governing pollution control, waste management, and conservation. |
| | | 2.5 | Assess the balance between environmental laws and economic growth. |
| | | 2.6 | Identify gaps in current environmental laws and suggest possible legal reforms. |

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| 3 | Evaluate the role of international regulations and treaties in environmental governance. | 3.1 | Identify key international treaties and agreements related to environmental issues, including:<br>• Paris Agreement.<br>• Kyoto Protocol. |
| | | 3.2 | Analyse the goals and objectives of major environmental treaties. |
| | | 3.3 | Discuss the challenges in enforcing international environmental agreements. |
| | | 3.4 | Evaluate the success and shortcomings of key environmental international regulations. |
| | | 3.5 | Discuss the role of international organisations, such as UNEP and UNFCCC, in global environmental governance. |
| | | 3.6 | Examine the influence of international regulations on national environmental policies. |
| 4 | Assess the implications of environmental policy and law for business and industry. | 4.1 | Identify the main environmental regulations that impact businesses, including:<br>• Carbon emission regulations.<br>• Waste management laws |
| | | 4.2 | Analyse the corporate social responsibility (CSR) obligations in the context of environmental law. |
| | | 4.3 | Evaluate the role of environmental risk assessments in business decision-making. |
| | | 4.4 | Discuss the challenges faced by businesses in complying with environmental laws and policies. |
| | | 4.5 | Assess the impact of environmental law on business sustainability and competitiveness. |
| | | 4.6 | Discuss case studies of businesses that have been affected by environmental laws. |

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| 5 | Understand the role of public participation and stakeholder engagement in environmental governance. | 5.1 | Explain the significance of public consultation in environmental policy development. |
| | | 5.2 | Identify the key stakeholders in environmental governance. |
| | | 5.3 | Discuss the methods used for engaging stakeholders in environmental decision-making. |
| | | 5.4 | Evaluate the effectiveness of public participation in environmental policy formulation. |
| | | 5.5 | Discuss the impact of public awareness campaigns on environmental behaviour. |
| | | 5.6 | Analyse the role of media in influencing environmental policy and regulations |
| 6 | Demonstrate the ability to critically reflect on environmental policy, law, and regulations in the context of sustainability | 6.1 | Analyse the alignment between environmental laws and the concept of sustainable development. |
| | | 6.2 | Discuss the challenges in integrating sustainability principles into environmental law. |
| | | 6.3 | Evaluate how policy changes can promote or hinder environmental sustainability. |
| | | 6.4 | Discuss the role of interdisciplinary approaches in the formulation of environmental law. |
| | | 6.5 | Discuss the balance between environmental protection and economic development in current laws. |
| | | 6.6 | Suggest strategies for improving the effectiveness of environmental laws in achieving sustainable outcomes. |

## Additional Assessment Information

This unit is **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

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| **Title:** | Environmental Impact Assessments, Corporate Sustainability and Responsibility | | | **Level:** | 6 |
| **Unit Number:** | R/651/4478 | **TQT:** | 100 | **GLH:** | 50 |

| **Learning Outcomes** *The learner will be able to:* | | **Assessment Criteria** *The learner can:* | |
|---|---|---|---|
| 1 | Understand the principles and processes of Environmental Impact Assessment. | 1.1 | Explain the key principles of Environmental Impact Assessment (EIA), including its scope and importance. |
| | | 1.2 | Discuss the stages of the EIA process and their significance. |
| | | 1.3 | Discuss the role of stakeholders in the EIA process, including:<br>• The public.<br>• Government bodies.<br>• Environmental organisations. |
| | | 1.4 | Evaluate the legal and regulatory framework for EIA in different jurisdictions. |
| | | 1.5 | Evaluate the effectiveness of mitigation measures recommended by an EIA |
| | | 1.6 | Analyse how EIAs are integrated into planning and decision-making processes. |
| 2 | Evaluate the relationship between corporate sustainability and environmental performance. | 2.1 | Define corporate sustainability and explain its relevance to environmental performance |
| | | 2.2 | Discuss how businesses integrate sustainability into their corporate strategies. |
| | | 2.3 | Evaluate the benefits and challenges of adopting sustainable practices in business |
| | | 2.4 | Analyse the impact of corporate sustainability initiatives on environmental performance |

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| 2 | *Continued* | 2.5 | Discuss the role of corporate social responsibility (CSR) in improving environmental performance |
| | | 2.6 | Analyse corporate sustainability reporting and transparency, including the quality of reporting regarding environmental performance. |
| 3 | Critically assess the role of Environmental Impact Assessment (EIA) in corporate decision-making. | 3.1 | Analyse the integration of EIA into corporate decision-making processes |
| | | 3.2 | Discuss the potential conflicts between business objectives and EIA recommendations |
| | | 3.3 | Evaluate how businesses use EIA to minimize environmental risks in new projects. |
| | | 3.4 | Analyse the effectiveness of corporate environmental management systems in the context of EIA |
| | | 3.5 | Analyse how corporate decision-makers balance environmental, economic, and social factors during the EIA process. |
| | | 3.6 | Discuss the influence of international EIA standards on corporate decision-making. |
| 4 | Analyse the role of sustainable development in corporate social responsibility (CSR) practices. | 4.1 | Describe what is meant by sustainable development and its importance in corporate social responsibility. |
| | | 4.2 | Analyse the relationship between CSR and sustainable environmental practices |
| | | 4.3 | Discuss CSR strategies employed by businesses to address environmental challenges |
| | | 4.4 | Discuss the role of corporate governance in promoting sustainability and CSR. |
| | | 4.5 | Analyse how CSR reporting frameworks contribute to the promotion of sustainable practices |
| | | 4.6 | Analyse the effectiveness of voluntary versus mandatory CSR regulations in fostering corporate sustainability |

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| 5 | Evaluate methods for monitoring and auditing environmental performance in corporate sustainability practices. | 5.1 | Explain the principles and tools of environmental performance monitoring. |
| | | 5.2 | Discuss the importance of environmental audits in ensuring corporate sustainability. |
| | | 5.3 | Evaluate the role of environmental performance indicators in measuring sustainability outcomes. |
| | | 5.4 | Discuss the challenges businesses face in monitoring environmental impacts. |
| | | 5.5 | Analyse the effectiveness of third-party environmental audits. |
| | | 5.6 | Discuss the integration of sustainability monitoring systems into business operations. |
| 6 | Demonstrate knowledge of sustainable practices in relation to corporate environmental policy. | 6.1 | Explain the role of corporate environmental policies in promoting sustainability/ |
| | | 6.2 | Analyse how corporate environmental policies address climate change, resource management, and pollution |
| | | 6.3 | Discuss how businesses align environmental policies with global sustainability goals. |
| | | 6.4 | Evaluate the success of corporate environmental policies in achieving sustainability objectives. |
| | | 6.5 | Discuss the role of innovation in shaping corporate environmental policies |
| | | 6.6 | Discuss the challenges of enforcing and monitoring corporate environmental policies. |

## Additional Assessment Information

This unit is **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

| Title: | Energy Management and Efficiency | | | Level: | 6 |
|---|---|---|---|---|---|
| Unit Number: | T/651/4479 | TQT: | 50 | GLH: | 25 |

| Learning Outcomes<br>*The learner will be able to:* | | Assessment Criteria<br>*The learner can:* | |
|---|---|---|---|
| 1 | Understand the principles and strategies of energy management and efficiency. | 1.1 | Explain the key principles of energy management in the context of environmental sustainability. |
| | | 1.2 | Analyse various strategies for improving energy efficiency across different sectors (e.g., industrial, residential, commercial). |
| | | 1.3 | Evaluate energy management systems used to track and optimize energy consumption. |
| | | 1.4 | Discuss the importance of energy efficiency in reducing environmental impacts, including carbon footprint. |
| | | 1.5 | Discuss the role of government policies and regulations in promoting energy efficiency and energy management. |
| 2 | Analyse energy usage patterns and identify opportunities for energy efficiency improvements. | 2.1 | Discuss energy usage patterns in different organizational contexts, such as manufacturing or office environments. |
| | | 2.2 | Apply energy auditing techniques to identify areas of energy waste and inefficiency. |
| | | 2.3 | Identify and describe energy-saving technologies (e.g., LED lighting, insulation, energy-efficient appliances). |
| | | 2.4 | Identify practical energy efficiency measures for reducing energy consumption in specific case studies. |
| | | 2.5 | Evaluate the financial and environmental benefits of implementing energy-saving technologies. |

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| 3 | Implement energy management systems (EnMS) and measure their effectiveness. | 3.1 | Design an Energy Management System (EnMS) based on ISO 50001 or similar standards. |
| | | 3.2 | Implement an EnMS within a selected organisation, detailing each stage of the process. |
| | | 3.3 | Monitor energy consumption using appropriate tools and technologies. |
| | | 3.4 | Assess the impact of the EnMS on energy use and sustainability goals. |
| | | 3.5 | Recommend improvements to the EnMS based on ongoing performance data and stakeholder feedback. |
| 4 | Evaluate the role of renewable energy and energy-efficient technologies in sustainable energy management | 4.1 | Explain the principles of renewable energy technologies, including:<br>• Solar.<br>• Wind.<br>• Geothermal.<br>• Hydropower. |
| | | 4.2 | Discuss the feasibility of incorporating renewable energy sources into an organization's energy management strategy. |
| | | 4.3 | Analyse the environmental benefits of using renewable energy compared to traditional fossil fuels. |
| | | 4.4 | Evaluate the economic viability of energy-efficient technologies and renewable energy sources in real-world applications. |
| | | 4.5 | Dicuss policy frameworks and incentives that encourage the adoption of renewable energy and energy-efficient technologies |

## Additional Assessment Information

Learning outcomes 1, 2 and 4 **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 3 is **competency based.** This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.
- Production of organisational documents.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not,** in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence or sit alongside real workplace documents produced by the candidate.

The evidence produced by candidates may be real work they have produced in the course of their employment or may be based on case studies and "simulated" scenarios.

| Title: | Waste Management and Pollution Control | | | Level: | 6 |
|---|---|---|---|---|---|
| Unit Number: | D/651/4480 | TQT: | 50 | GLH: | 25 |

| Learning Outcomes<br>*The learner will be able to:* | | Assessment Criteria<br>*The learner can:* | |
|---|---|---|---|
| 1 | Understand the principles of waste management. | 1.1 | Describe the key concepts in waste management, including:<br>• Waste minimization.<br>• Segregation.<br>• Recycling.<br>• Disposal. |
| | | 1.2 | Explain the hierarchy of waste management, including the principles of reduce, reuse, and recycle. |
| | | 1.3 | Evaluate the different waste management strategies (e.g., landfill, incineration, composting, recycling). |
| | | 1.4 | Assess the environmental and social impacts of poor waste management practices. |
| | | 1.5 | Demonstrate knowledge of legislation and policies that govern waste management in various jurisdictions. |
| 2 | Assess the impact of waste on the environment and human health. | 2.1 | Identify different types of waste (hazardous, non-hazardous, electronic, biodegradable, etc.) and their environmental impacts. |
| | | 2.2 | Analyse the effects of waste disposal methods, such as landfills, incineration, and open dumping, on air, water, and soil quality. |
| | | 2.3 | Analyse the potential risks to human health associated with improper waste management, such as disease transmission and pollution. |
| | | 2.4 | Define pollution and identify the different types of pollution related to waste. |

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| 2 | *Continued* | 2.5 | Discuss case studies where poor waste management has led to significant environmental degradation or public health crises. |
| | | 2.6 | Discuss the long-term consequences of waste accumulation on ecosystems, biodiversity, and climate change. |
| 3 | Apply waste reduction strategies in various sectors. | 3.1 | Develop waste management plans that incorporate waste reduction, recycling, and reuse strategies. |
| | | 3.2 | Design waste segregation systems for industrial, commercial, and residential environments. |
| | | 3.3 | Conduct an audit of a specific sector's waste generation and propose effective waste minimization techniques. |
| | | 3.4 | Evaluate the feasibility of implementing zero-waste or circular economy principles in various industries. |
| | | 3.5 | Collaborate with stakeholders, including, businesses, local authorities and community groups to implement waste reduction initiatives. |
| 4 | Understand pollution control methods and their application in waste management. | 4.1 | Compare pollution control technologies, such as filtration systems, air scrubbers, and leachate treatment systems. |
| | | 4.2 | Analyse the role of policy and regulation in controlling pollution from waste disposal activities. |
| | | 4.3 | Discuss the effectiveness of current pollution control measures in various waste management practices. |
| | | 4.4 | Design a waste management strategy that incorporates pollution prevention and control techniques to minimize environmental harm. |

## Additional Assessment Information

Learning outcomes 1, 2 and 4 **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 3 is **competency based.** This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.
- Production of organisational documents.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not,** in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence or sit alongside real workplace documents produced by the candidate.

The evidence produced by candidates may be real work they have produced in the course of their employment or may be based on case studies and "simulated" scenarios.

| Title: | Environmental Risk and Crisis Management | | | Level: | 6 |
|---|---|---|---|---|---|
| Unit Number: | F/651/4481 | TQT: | 100 | GLH: | 50 |

| Learning Outcomes<br>*The learner will be able to:* | | Assessment Criteria<br>*The learner can:* | |
|---|---|---|---|
| 1 | Understand the principles and processes of environmental risk management. | 1.1 | Describe the principles of environmental risk management, including its importance in sustainability. |
| | | 1.2 | Explain the steps involved in identifying and assessing environmental risks. |
| | | 1.3 | Discuss the methods of risk evaluation used to determine the severity and likelihood of environmental impacts. |
| | | 1.4 | Evaluate how environmental risk management contributes to long-term sustainability practices. |
| | | 1.5 | Analyse the role of legislation, standards, and frameworks in environmental risk management. |
| | | 1.6 | Discuss key risk management strategies implemented by environmental organizations. |
| 2 | Apply environmental risk assessment techniques to real-world scenarios | 2.1 | Apply appropriate risk assessment models and tools, including risk matrices and hazard analysis, to a given environmental issue. |
| | | 2.2 | Assess the potential environmental risks associated with industrial or natural processes. |
| | | 2.3 | Evaluate the data and information gathered in the risk assessment process for accuracy and reliability. |
| | | 2.4 | Develop risk assessment reports that include risk levels, mitigation strategies, and recommendations. |
| | | 2.5 | Interpret the findings of an environmental risk assessment and present them to stakeholders. |
| | | 2.6 | Evaluate the effectiveness of proposed control measures in mitigating identified risks. |

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| 3 | Develop strategies for crisis management in environmental contexts. | 3.1 | Define crisis management in the context of environmental incidents. |
| | | 3.2 | Develop crisis management plans that outline key strategies for responding to environmental emergencies, for example oil spills and natural disasters |
| | | 3.3 | Identify the key stakeholders involved in environmental crisis management and their roles. |
| | | 3.4 | Evaluate case studies of past environmental crises to identify best practices and lessons learned |
| | | 3.5 | Produce communication strategies for informing the public and stakeholders during an environmental crisis. |
| | | 3.6 | Assess the effectiveness of crisis management systems in reducing environmental damage during emergencies. |
| 4 | Evaluate the role of sustainability in managing environmental crises. | 4.1 | Analyse how sustainability principles are integrated into environmental crisis management plans. |
| | | 4.2 | Discuss the challenges of balancing immediate crisis response with long-term sustainability goals. |
| | | 4.3 | Evaluate the impact of environmental crises on local communities, ecosystems, and global sustainability. |
| | | 4.4 | Analyse the role of environmental organisations and governmental agencies in promoting sustainability during a crisis. |
| | | 4.5 | Examine the long-term effects of environmental crises on biodiversity and ecosystem services. |
| | | 4.6 | Develop strategies to ensure that sustainability is considered in post-crisis recovery and reconstruction efforts. |

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| 5 | Investigate and assess policy and regulatory frameworks relevant to environmental risk and crisis management. | 5.1 | Describe the key environmental laws, policies, and international agreements related to environmental risk and crisis management. |
| | | 5.2 | Evaluate the effectiveness of current policies and regulations in preventing and mitigating environmental crises. |
| | | 5.3 | Analyse the role of environmental regulations in enforcing sustainability practices during crisis management. |
| | | 5.4 | Assess the challenges faced by organizations in complying with environmental regulations during emergencies. |
| | | 5.5 | Discuss the role of public participation and community input in the creation of environmental policies and risk management strategies. |
| | | 5.6 | Evaluate the adequacy of existing policy frameworks in addressing emerging environmental threats such as climate change and pollution. |
| 6 | Critically evaluate the tools and technologies used in environmental risk and crisis management. | 6.1 | Identify the tools and technologies used for environmental monitoring and risk assessment. |
| | | 6.2 | Evaluate the effectiveness of different technologies in predicting and managing environmental risks. |
| | | 6.3 | Discuss the role of technology in communication during environmental crises, including the use of early warning systems and mobile apps. |
| | | 6.4 | Analyse the limitations and ethical implications of using technology in environmental risk management. |
| | | 6.5 | Analyse case studies where technology played a key role in managing or mitigating an environmental crisis. |
| | | 6.6 | Explore emerging technologies and trends in the field of environmental risk management and crisis response. |

## Additional Assessment Information

Learning outcomes 1, 2, 4, 5 and 6 are **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 3 is **competency based.** This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.
- Production of organisational documents.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not,** in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence or sit alongside real workplace documents produced by the candidate.

The evidence produced by candidates may be real work they have produced in the course of their employment or may be based on case studies and "simulated" scenarios.

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| **Title:** | Innovation and Technology for Sustainability Reporting and Performance Measurement | | | **Level:** | 6 |
| **Unit Number:** | H/651/4482 | **TQT:** | 100 | **GLH:** | 50 |

| **Learning Outcomes** *The learner will be able to:* | | **Assessment Criteria** *The learner can:* | |
|---|---|---|---|
| 1 | Understand the role of innovation and technology in sustainability reporting and performance measurement | 1.1 | Describe the key concepts of sustainability reporting and performance measurement. |
| | | 1.2 | Explain the significance of technological innovation in improving sustainability reporting processes. |
| | | 1.3 | Discuss how technology enables more accurate and real-time data collection for sustainability performance measurement. |
| | | 1.4 | Discuss the impact of emerging technologies, such as blockchain and AI, on sustainability reporting practices. |
| | | 1.5 | Analyse the relationship between technological advancements and the transparency of sustainability reports. |
| | | 1.6 | Identify the challenges organizations face when adopting innovative technologies for sustainability reporting. |
| 2 | Evaluate various technological tools used in sustainability reporting and performance measurement | 2.1 | Identify different tools and software used in sustainability reporting including:<br>• Global Reporting Initiative (GRI).<br>• Sustainability Accounting Standards Board (SASB).<br>• Environmental Management Systems). |
| | | 2.2 | Discuss the advantages and limitations of various digital platforms and technologies in tracking sustainability performance. |

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| 2 | *Continued* | 2.3 | Evaluate the role of big data and analytics in providing insights for sustainability performance measurement. |
| | | 2.4 | Analyse the effectiveness of tools that integrate sustainability reporting with other business functions (e.g., enterprise resource planning systems). |
| | | 2.5 | Discuss the use of cloud-based systems and their role in ensuring real-time and collaborative sustainability reporting. |
| | | 2.6 | Compare traditional methods of reporting with innovative technology-driven approaches and analyse their respective benefits. |
| 3 | Apply innovative technologies in the design of sustainability performance measurement systems | 3.1 | Produce a sustainability performance measurement system that incorporates innovative technologies. |
| | | 3.2 | Select appropriate technologies to collect and measure key sustainability performance indicators (KPIs). |
| | | 3.3 | Develop strategies for integrating real-time data collection into performance measurement systems using innovative technologies. |
| | | 3.4 | Apply technological innovations to create systems that can evaluate the environmental, social, and governance (ESG) criteria. |
| | | 3.5 | Produce a framework for assessing the effectiveness and efficiency of sustainability performance measurement systems. |
| | | 3.6 | Analyse the potential for scalability and adaptability of proposed technology-based performance systems in different organizational contexts. |

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| 4 | Investigate the integration of innovation and technology in sustainability reporting frameworks and standards | 4.1 | Explain the role of international frameworks and standards in sustainability reporting. |
| | | 4.2 | Discuss how innovative technologies can help organizations comply with evolving reporting frameworks and standards. |
| | | 4.3 | Evaluate the effectiveness of technology in enhancing data accuracy, consistency, and comparability across sustainability reports. |
| | | 4.4 | Analyse case studies where technology was successfully integrated into reporting frameworks to improve sustainability outcomes. |
| | | 4.5 | Discuss the challenges and opportunities of aligning new technological solutions with existing reporting standards. |
| | | 4.6 | Discuss the role of artificial intelligence and machine learning in automating sustainability reporting processes. |
| 5 | Evaluate the impact of technology-driven sustainability performance measurement on business decision-making and strategy. | 5.1 | Evaluate how the use of technology in sustainability reporting influences strategic decision-making in organizations. |
| | | 5.2 | Analyse the role of real-time data in improving organizational responsiveness to sustainability challenges. |
| | | 5.3 | Analyse how the integration of technology-driven performance measurement impacts business models and competitive advantage. |
| | | 5.4 | Analyse the potential risks and ethical concerns associated with using technology in sustainability reporting. |
| | | 5.5 | Discuss how innovation in sustainability performance measures affects corporate social responsibility and stakeholder engagement. |
| | | 5.6 | Discuss the financial implications of adopting advanced technologies for sustainability measurement, including cost-benefit analyses |

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| 6 | Communicate the results of sustainability performance measurement using innovative reporting methods. | 6.1 | Produce a report using digital tools and platforms to present sustainability performance data effectively. |
| | | 6.2 | Apply visualization techniques to communicate complex sustainability data clearly. |
| | | 6.3 | Evaluate the role of interactive technologies in engaging stakeholders and enhancing the accessibility of sustainability reports. |
| | | 6.4 | Discuss how innovative reporting methods can improve transparency and accountability in sustainability performance. |
| | | 6.5 | Produce a communication strategy for effectively presenting sustainability performance to various stakeholders (e.g., investors, customers, regulatory bodies). |
| | | 6.6 | Analyse how digital reporting formats enhance the timeliness and reach of sustainability information. |

## Additional Assessment Information

Learning outcomes 1, 2, 4, and 5 are **knowledge based.** This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcomes 3 and 6 are **competency based.** This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
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# Appendix One – Command Verb Definitions

The table below explains what is expected from each **command verb** used in an assessment objective. Not all verbs are used in this specification

| | |
|---|---|
| **Apply** | Use existing knowledge or skills in a new or different context. |
| **Analyse** | Break a larger subject into smaller parts, examine them in detail and show how these parts are related to each other. This may be supported by reference to current research or theories. |
| **Classify** | Organise information according to specific criteria. |
| **Compare** | Examine subjects in detail, giving the similarities and differences. |
| **Critically Compare** | As with compare, but extended to include pros and cons of the subject. There may or may not be a conclusion or recommendation as appropriate. |
| **Describe** | Provide detailed, factual information about a subject. |
| **Discuss** | Give a detailed account of a subject, including a range of contrasting views and opinions. |
| **Explain** | As with describe, but extended to include causation and reasoning. |
| **Identify** | Select or ascertain appropriate information and details from a broader range of information or data. |
| **Interpret** | Use information or data to clarify or explain something. |
| **Produce** | Make or create something. |
| **State** | Give short, factual information about something. |
| **Specify** | State a fact or requirement clearly and in precise detail. |

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