Advanced Skill Certificate in Strategic Facilities Management

Sustainability and Environmental Management

Sustainability and Environmental Management Glossary

A

Asset Management: Asset management involves the systematic approach to the governance and realization of value from the things that a group or entity is responsible for, including both physical assets (such as buildings and equipment) and intangible assets (such as intellectual property). It is crucial in sustainability and environmental management to ensure that assets are utilized efficiently, maintained properly, and disposed of responsibly.

B

Biodiversity: Biodiversity refers to the variety of life on Earth, including the different species of plants, animals, and microorganisms, the genetic diversity within these species, and the variety of ecosystems in which they live. Biodiversity is essential for the functioning of ecosystems and provides various benefits to human society, such as food, medicine, and clean air and water.

Biodegradable: Biodegradable materials are substances that can be broken down by natural processes, such as microorganisms, into simpler compounds that are not harmful to the environment. Using biodegradable materials can help reduce waste and pollution and promote sustainability.

Carbon Footprint: A carbon footprint is the total amount of greenhouse gases, mainly carbon dioxide, released directly or indirectly by human activities. It is measured in units of carbon dioxide equivalents (CO2e) and includes emissions from activities like transportation, energy use, and waste generation. Managing and reducing carbon footprints are essential in environmental management to mitigate climate change.

Carbon Neutral: Being carbon neutral means having a net zero carbon footprint, where the amount of carbon dioxide emissions released into the atmosphere is balanced by an equivalent amount of carbon dioxide removed from the atmosphere or offset through carbon offset projects. Achieving carbon neutrality is a key goal for organizations committed to sustainability.

Corporate Social Responsibility (CSR): Corporate social responsibility refers to a company's commitment to operating in an economically, socially, and environmentally sustainable manner while balancing the interests of various stakeholders, including employees, customers, suppliers, and the community. CSR initiatives can include philanthropy, ethical business practices, environmental conservation, and social welfare programs.

D

Decommissioning: Decommissioning involves the safe and environmentally responsible shutdown and closure of facilities, equipment, or infrastructure at the end of their operational life. Proper decommissioning is essential to prevent environmental contamination, ensure public safety, and reclaim land for other uses.

Deforestation: Deforestation is the clearing of forests or woodlands, primarily for agriculture, urban development, or logging, leading to the permanent destruction of forest ecosystems. Deforestation contributes to habitat loss, biodiversity decline, soil erosion, and climate change, making sustainable forest management crucial for environmental conservation.

Energy Efficiency: Energy efficiency refers to using less energy to perform the same tasks or achieve the same level of output, resulting in reduced energy consumption and lower greenhouse gas emissions. Improving energy efficiency in buildings, appliances, transportation, and industrial processes is a key strategy for sustainability and environmental management.

Environmental Impact Assessment (EIA): An environmental impact assessment is a process of evaluating the potential environmental consequences of a proposed project, development, or policy before it is implemented. EIA helps identify and mitigate adverse environmental impacts, ensure compliance with regulations, and promote sustainable decision-making.

Environmental Management System (EMS): An environmental management system is a framework that helps organizations manage, monitor, and continuously improve their environmental performance. EMS typically involves establishing policies, setting objectives and targets, conducting environmental audits, and complying with relevant laws and regulations to minimize environmental impacts.

Environmental Sustainability: Environmental sustainability involves meeting the needs of the present without compromising the ability of future generations to meet their own needs. It encompasses the responsible use of natural resources, pollution prevention, biodiversity conservation, and climate change mitigation to ensure a healthy environment for all living beings.

F

Facility Management: Facility management is a multidisciplinary profession that encompasses the management of buildings, infrastructure, and services to ensure the functionality, safety, sustainability, and comfort of the built environment. Facility managers are responsible for planning, operating, maintaining, and optimizing facilities to support the organization's core business activities.

Green Building: Green building, also known as sustainable or eco-friendly building, refers to the design, construction, and operation of buildings that minimize their environmental impact and promote resource efficiency, energy conservation, and occupant health and well-being. Green buildings incorporate

sustainable materials, energy-efficient systems, and green technologies to enhance environmental performance.

Greenhouse Gas: Greenhouse gases are gases in the Earth's atmosphere that trap heat and contribute to the greenhouse effect, leading to global warming and climate change. Common greenhouse gases include carbon dioxide, methane, nitrous oxide, and fluorinated gases, which are emitted from human activities such as burning fossil fuels, deforestation, and agriculture.

I

ISO 14001: ISO 14001 is an international standard for environmental management systems that provides a framework for organizations to establish, implement, maintain, and improve their environmental performance. Compliance with ISO 14001 requirements helps organizations reduce environmental impacts, achieve regulatory compliance, and enhance sustainability practices.

Life Cycle Assessment (LCA): Life cycle assessment is a method for evaluating the environmental impacts of a product, process, or service throughout its entire life cycle, from raw material extraction to end-of-life disposal. LCA considers factors such as resource consumption, energy use, emissions, and waste generation to identify opportunities for environmental improvement and inform decision-making.

M

Material Recycling: Material recycling involves collecting, processing, and reusing waste materials to produce new products or materials, thereby reducing the consumption of raw materials, energy usage, and emissions associated with manufacturing. Recycling plays a crucial role in waste management and resource conservation to promote sustainability and environmental protection.

Renewable Energy: Renewable energy comes from sources that are naturally replenished, such as sunlight, wind, water, and biomass, without depleting finite resources or emitting greenhouse gases. Technologies like solar photovoltaics, wind turbines, hydropower, and bioenergy provide clean and sustainable alternatives to fossil fuels for electricity generation and heating.

Resource Efficiency: Resource efficiency involves using resources, such as materials, energy, water, and land, more effectively to minimize waste, reduce environmental impacts, and optimize economic value. Strategies for resource efficiency include recycling, reuse, energy efficiency, circular economy principles, and sustainable consumption and production practices.

S

Sustainability: Sustainability refers to the ability to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. It involves balancing social, economic, and environmental considerations to create a sustainable and equitable society that preserves natural resources, protects ecosystems, and promotes human well-being.

Sustainable Development: Sustainable development is a holistic approach to economic growth, social progress, and environmental protection that aims to meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development integrates economic prosperity, social equity, and environmental stewardship to achieve long-term sustainability.

Sustainable Procurement: Sustainable procurement, also known as green procurement or responsible sourcing, involves integrating environmental, social, and ethical criteria into the purchasing process to support sustainable development goals. Sustainable procurement practices consider factors such as product lifecycle impacts, supplier sustainability performance, and fair labor practices to promote sustainability throughout the supply chain.

Sustainable Urban Planning: Sustainable urban planning aims to create cities and communities that are socially inclusive, economically viable, environmentally sustainable, and resilient to climate change and other challenges. It involves integrated land use planning, transportation systems, infrastructure development, and public services to promote sustainable urban development and quality of life.

W

Waste Management: Waste management encompasses the collection, transportation, treatment, recycling, and disposal of waste materials in an environmentally sound and socially responsible manner. Effective waste management practices help minimize waste generation, conserve resources, reduce pollution, and promote circular economy principles for sustainable resource use.

Conclusion

This comprehensive glossary provides a detailed explanation of key terms related to sustainability and environmental management, essential for professionals pursuing the Advanced Skill Certificate in Strategic Facilities Management. Understanding these terms is crucial for implementing sustainable practices, reducing environmental impacts, and promoting a more resilient and equitable society. By incorporating these concepts into their daily operations, facility managers can contribute to a greener, healthier, and more sustainable future for all.