Green Project Management

The PMI® GPM® P5™ Standard for Sustainability in Project Management

Version 4

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PMI GPM Sustainability JV, LLC

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Version 4.0

This publication has been designed with sustainability in mind, using practices that minimize paper use and reduce environmental impact.

About PMI GPM Sustainability JV, LLC

The PMI® GPM® P5™ Standard for Sustainability in Project Management (P5 Standard) is published by a strategic joint venture formed by Project Management Institute (PMI) and GPM Global.

The collaboration combines:

- GPM's original development of the P5 sustainability impact framework and domain expertise in sustainable project management
- PMI global standards governance, certification infrastructure, market reach, and professional community

The result is an integrated sustainability architecture designed to embed environmental, social, and economic impact management directly into the discipline of project management.

Why the Joint Venture Matters

Sustainability in projects requires more than a conceptual framework. It requires:

- Structured governance
- Global distribution capability
- Formal standards maintenance processes
- Certification alignment
- Reporting integration
- Ongoing research and professional development

The PMI GPM joint venture provides that structure.

Under this model:

- GPM contributes sustainability intellectual property and subject matter expertise.
- The joint venture governs the P5 portfolio and related sustainability offerings.
- PMI provides global publication, certification administration, technology platforms, and distribution infrastructure.

Commitment to Continuous Evolution

The PMI GPM joint venture maintains P5 through formal review cycles, stakeholder engagement, and alignment with evolving global sustainability frameworks and disclosure standards.

Sustainability is not static. Neither is P5.

This standard represents a living framework—governed, maintained, and advanced through structured collaboration between domain experts and the world's leading project management institution.

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Foreword

The world is full of ambition and good intentions. But it suffers from a lack of execution.

We know what many of the big challenges are: climate change, resource pressure, inequality, fragility in supply chains, pressure on communities, and growing expectations for transparency and accountability. The real question is whether we are able to turn intention into decisions, and decisions into action, at the scale and speed required. That is why the P5 Standard matters.

Sustainability cannot just live in mission statements, annual reports, or conference speeches. Projects are where intentions are translated into choices, where money is committed, where materials are sourced, where tradeoffs are made, where timelines are compressed, and where the consequences of those decisions begin to take shape in the real world.

In other words, the future is built project by project.

For a long time, many organizations treated sustainability as a parallel conversation: important, but somewhat separate from actual delivery. But let's be clear: a project cannot truly be considered successful if it delivers an outcome efficiently while creating avoidable harm, shifting costs to society, or weakening the very systems on which long term value depends. Execution and responsibility are intimately connected.

The P5 Standard makes a distinctive contribution. It helps project leaders expand their perspective. It asks them to look not only at what is being delivered, but also at how it is being delivered, for whom, at what cost, and with what lasting effect. It brings discipline to questions that are often treated as secondary until it is too late: impact on people, impact on the planet, economic consequences, the sustainability of the product itself, and the integrity of the processes used to bring it to life.

Those who will lead in the years ahead will not be the ones who talk most about sustainability. They will be the ones who know how to embed it into decisions. They will understand that resilience, trust, efficiency, innovation, and long term performance are not separate from sustainability. Increasingly, they are outcomes of it.

This has implications for our profession.

Project professionals are, at their best, stewards of value. They help organizations turn strategy into outcomes that justify the effort and expense involved. And in a world of rising expectations, part of that responsibility is making sure value is not defined too narrowly or too temporarily.

The P5 Standard gives practitioners a way to do that with more clarity, more rigor, and more credibility. It belongs in the hands of project leaders, executives, sponsors, educators, and teams who understand that projects do more than deliver change. They shape the conditions in which people, organizations, and societies will operate for years to come.

That is a serious responsibility. It is also a remarkable opportunity. The opportunity for our profession to do what it is uniquely positioned to do: move sustainability from aspiration to execution.

Pierre Le Manh
President and CEO
Project Management Institute

Introduction

The world is changing at a pace and scale unlike anything we have experienced before. Climate instability, biodiversity loss, social inequity, supply chain fragility, rapid technological disruption, and increasing regulatory expectations are reshaping the environment in which projects are conceived and delivered. In this context, sustainability is no longer a corporate initiative or reporting exercise—it is a strategic imperative.

Projects are the primary vehicles for change. Every product launched, system deployed, building constructed, service redesigned, or transformation initiated begins as a project. This means that projects do not merely respond to global challenges—they actively shape the future. The question is no longer whether projects have impact. The question is whether that impact is intentional, measured, and responsible.

The PMI® GPM® P5™ Standard for Sustainability in Project Management (P5 Standard) was created to answer that question.

Since its original release in 2009, P5 has provided a practical framework for integrating sustainability into project management. It reframes project success beyond traditional constraints to include impact across five critical dimensions: People, Planet, Prosperity, Process, and Product. By expanding the definition of value, P5 helps organizations move from short-term outputs to long-term outcomes.

This latest version reflects the realities of today's operating environment. It aligns with global frameworks, such as the United Nations Sustainable Development Goals (SDGs), while recognizing emerging influences, including digital transformation, artificial intelligence, evolving governance expectations, and supply chain transparency. It strengthens the connection between sustainability strategy and project execution, ensuring that commitments made at the enterprise level translate into measurable impact at the project level.

P5 is not theory. It is a practical tool set designed for decision-makers, project leaders, project management offices (PMOs), and sustainability professionals who must balance complexity, trade-offs, and accountability. It supports better choices during selection, planning, delivery, reporting, and transition—embedding sustainability into the full project life cycle.

At PMI and GPM, we believe that sustainable development is not achieved through aspiration alone. It is achieved through disciplined application. By placing sustainability at the heart of project management, P5 empowers organizations to create shared value, manage risk responsibly, and contribute meaningfully to a future in which both people and planet can thrive.

The future will be built through projects. P5 ensures it is built responsibly.

Sincerely,

Dr. Joel B. Carboni
Founder, GPM Global and Author of the P5 Standard

1. Sustainability and Project Management

GPM's recent research, *Insights on Sustainable Project Management*, found that 96% of executives surveyed believe that projects and project management are integral to sustainable development, and 100% believe that project managers should understand the importance of sustainability within their projects. These findings reinforce what broader industry research now confirms: project success is increasingly defined by value delivery, not execution alone.

The PMI report *Maximizing Project Success* further demonstrates that projects delivering value beyond traditional execution metrics achieve higher perceived success rates. In fact, sustainability and social impact emerged as the strongest predictors of project success globally, with projects aligned to social good achieving significantly higher Net Project Success Scores (NPSS) than those that did not.

Taken together, this research confirms that sustainability is not peripheral to performance—it is predictive of it. The P5 Standard provides a structured framework for identifying, measuring, and managing these impact domains at the project level, thereby strengthening the conditions statistically associated with higher project success outcomes.

This evidence underscores the importance of integrating sustainability directly into project objectives and governance. Establishing clear sustainability targets—such as reducing energy use, minimizing waste, or designing regenerative outcomes—strengthens alignment with enterprise value. Sustainability should not be treated as an add-on; it must be embedded into scope definition, risk management, performance measurement, and stakeholder engagement.

Tracking sustainability performance through measurable indicators, aligning projects with broader societal benefit, and communicating impact transparently, are no longer optional enhancements. They are core contributors to project success. Per GPM's 2024 Insights Report, As climate-related disruption increases—58% of projects in 2023 were reported as impacted by extreme weather events, up from 38% in 2021—resilience and sustainability integration have become essential components of effective project delivery.

1.1 The Evolution of Project Management Focus

Dr. Martin Barnes introduced the concept of the Iron Triangle (also referred to as the Triple Constraint) in the 1960s. For decades, delivering projects "on time, within budget, and according to specification" became the primary measures of project success. Execution discipline was viewed as the defining responsibility of the project manager.

In 1994, John Elkington introduced the concept of the Triple Bottom Line (3BL), later popularized in *Cannibals with Forks* (1997). He argued that organizational performance should be assessed not only by financial outcomes, but also by its broader social and environmental impacts—People, Planet, and Profit. This expanded how value was understood at the enterprise level.

Modern project management guidance reflects this broader perspective. *A Guide to the Project Management Body of Knowledge* (*PMBOK® Guide)*—Eighth Edition emphasizes value delivery, stakeholder engagement, governance, and outcome orientation, reinforcing that success extends beyond adherence to cost and schedule constraints. Similarly, frameworks such as PRINCE2®, Managing Successful Programmes

(MSP®), and GPM's PRiSM™ highlight the importance of risk management, benefits realization, and strategic alignment.

When these perspectives are combined, project management evolves from a constraint-driven discipline to a value- and impact-oriented practice. P5 has been designed to support this expanded view by providing structured sustainability impact identification that integrates with principle-based project management systems.

When we combine these perspectives, we end up with a new view of project management as illustrated on the right side of Figure 1-1. P5 has been designed to support this view for determining the applicability of external frameworks based on jurisdiction, industry, and stakeholder requirements.

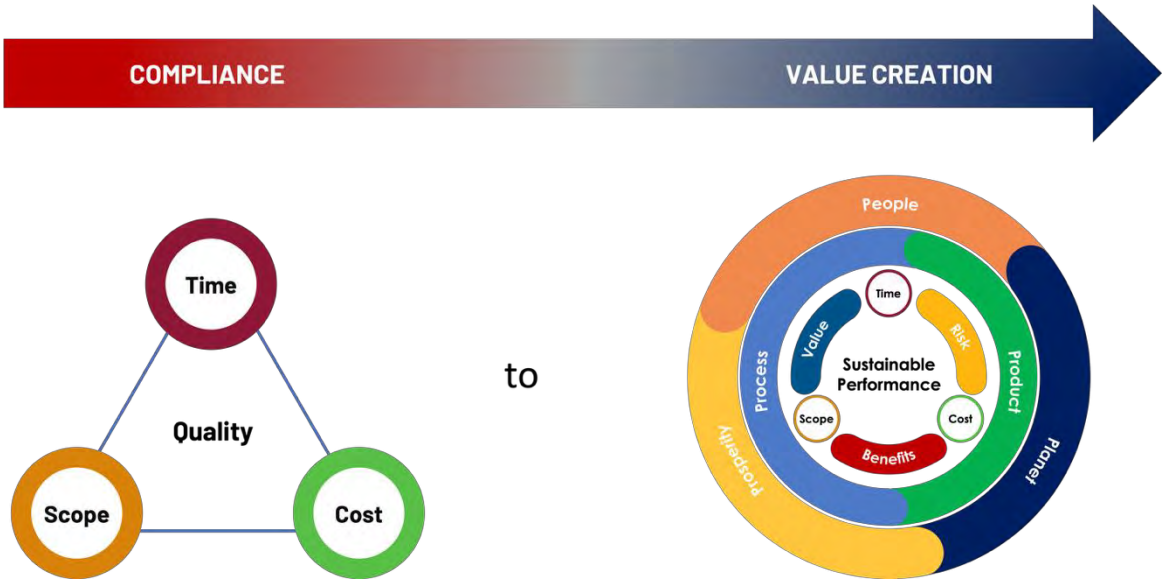

Figure 1-1 Evolution of Project Management Focus

1.2 Professionalization in Project Management

For many years, professionalization has been a central theme within the project management discipline. As projects have grown in scale, complexity, and societal impact, there has been increasing recognition that project management is not merely a technical skill set but a professional practice. With that recognition comes a desire for project managers to be regarded alongside other established professions, such as engineering, architecture, and accounting—disciplines that are defined not only by competence, but by ethical responsibility and public trust.

Professional status, however, carries obligations. It requires adherence to standards of conduct, accountability for decisions, and a commitment to act in ways that serve both organizational objectives and the broader interests of society. Modern project environments demand more than delivery efficiency. They demand stewardship of resources, consideration of long-term impacts, and transparency in how value is created.

Both the PMI evolving definition of project success—centered on delivering value that is worth the effort and expense—and GPM's work in sustainability integration reflect this maturation of the profession. As expectations shift from execution metrics to value delivery and impact, project professionals are increasingly called upon to consider environmental, social, and governance (ESG) implications as part of responsible practice.

PMI and GPM share the position that advancing project management as a profession requires embedding sustainability into its core competencies. The P5 Standard supports this progression by providing structured guidance for identifying and managing sustainability impacts within projects. In doing so, it reinforces the principle that professional project management must align performance with long-term societal and organizational value.

1.3 Alignment With the *PMBOK® Guide*—Eighth Edition

The P5 Standard is designed to integrate within established project management architectures, including the *PMBOK® Guide*—Eighth Edition. The *PMBOK® Guide*—Eighth Edition provides a principles-based foundation centered on value delivery, governance, stakeholder engagement, and adaptive performance across predictive, adaptive, and hybrid environments. P5 complements this foundation by providing a structured method for identifying and evaluating sustainability impacts within project execution.

The *PMBOK® Guide*—Eighth Edition emphasizes the importance of integrating sustainability across all project areas. P5 operationalizes this principle by defining specific environmental, social, and economic impact domains—People, Planet, and Prosperity—and applying systematic evaluation lenses to project processes, outputs, and servicing. In this way, P5 supports the integration of sustainability considerations into project governance without prescribing a specific delivery methodology.

P5 also aligns with the performance domains described in the *PMBOK® Guide*—Eighth Edition. Sustainability impacts identified through P5 may influence governance decisions, stakeholder engagement strategies, resource planning, financial evaluation, and risk management processes. By extending impact identification into these domains, P5 strengthens the assessment of long-term value and resilience.

The P5 Impact Analysis (P5IA) provides a practical mechanism for evaluating how project activities, results, and life cycle characteristics affect environmental systems, social structures, and economic performance. This structured evaluation enhances decision-making within the broader system for value delivery described by the *PMBOK® Guide*—Eighth Edition.

P5 does not replace or modify the guidance described in the *PMBOK® Guide*—Eighth Edition. Rather, it operates within it, supporting project teams in identifying sustainability impacts that may affect project success, organizational commitments, and stakeholder expectations.

P5 and *PMBOK® Guide*—Eighth Edition Performance Domain Alignment

Table 1-1 illustrates how P5 sustainability impact domains and lenses align conceptually with the *PMBOK® Guide*—Eighth Edition performance domains. The alignment is complementary. P5 does not replace *PMBOK® Guide*—Eighth Edition guidance; it strengthens impact identification within existing governance structures.

Table 1 -1 P5 Standard *PMBOK® Guide*—Eighth Edition Crosswalk

P5 Domain/Lens	Primary *PMBOK® Guide*—Eighth Edition Performance Domains Influenced	Nature of Alignment
People	Stakeholders, Resources, Governance	Evaluates workforce impacts, stakeholder treatment, inclusion, and social risk exposure
Planet	Risk, Governance, Stakeholders	Identifies environmental exposure, compliance risk, and long-term ecological impact
Prosperity	Finance, Governance, Risk	Assesses economic durability, life cycle value, resilience, and transition risk
Product Lifespan Lens	Scope, Finance, Risk	Evaluates long-term outcome performance and life cycle impacts of project deliverables
Product Servicing Lens	Resources, Finance, Risk	Assesses operational and maintenance impacts influencing long-term value delivery
Process Efficiency Lens	Resources, Schedule, Finance	Examines resource intensity and operational waste within project execution
Process Effectiveness Lens	Governance, Risk, Stakeholders	Evaluates whether project controls achieve intended sustainability outcomes
Process Fairness Lens	Stakeholders, Governance	Assesses equitable distribution of benefits, burdens, and decision transparency

2 An Introduction to the P5 Standard

According to the International Standards Organization (ISO), standards can be described "as a formula that describes the best way of doing something." It could be about making a product, managing a process, delivering a service, or supplying materials—standards cover a huge range of activities.

Standards are the distilled wisdom of people with expertise in their subject matter and who know the needs of the organizations they represent. These people may be manufacturers, sellers, buyers, customers, trade associations, users, or regulators. Their standards may address:

- **Quality management** to help work more efficiently and reduce product failures
- **Environmental management** to help reduce environmental impacts, reduce waste, and be more sustainable
- **Health and safety** to help reduce accidents in the workplace
- **Energy management** to help cut energy consumption
- **Food safety** to help prevent food from being contaminated
- **Information technology (IT)** to help keep sensitive information secure

Most standards are either informative or normative:

- **Informative standards** provide guidance, best practices, and recommendations on various topics related to management systems, processes, products, services, and technologies. While compliance with informative standards is not mandatory, it can be useful for organizations seeking to improve their operations or meet stakeholder expectations.
- **Normative standards** provide requirements, specifications, and guidelines that organizations must comply with to achieve certification or compliance.

The P5 Standard is primarily informative. It is a structured impact framework—not a methodology, not a certification program, and not a reporting regime.

This P5 Standard provides guidance on what to measure and how to integrate sustainability into project activities. It can also be used by sustainability professionals to include projects in their reporting by expanding on the triple bottom line of People, Planet, and Prosperity to include Product and Process impacts. Thus, P5 stands for: People, Planet, Prosperity, Process, and Product.

2.1 Where This Standard Sits Within the PMI-GPM Ecosystem

The P5 Standard is part of an integrated sustainability architecture.

- **The P5 Standard** defines the sustainability impact framework.
- ***The PMI® GPM® Practice Guide for Sustainability in Project Management*** *explains* how to apply that framework in real-world projects.
- ***The GPM® Sustainability Competence Standard*** defines the capabilities required to deliver sustainable projects effectively.
- **The Project Sustainability Reporting Guide** connects project-level impacts to ESG disclosures and sustainability reporting.

- ***Sponsoring Projects Sustainably: The Sponsor Guide*** addresses executive governance and accountability for sustainable outcomes.

Together, these components form a coherent system that integrates sustainability into project delivery, professional competence, governance, and reporting.

2.2 Global Sustainability Mapping

The P5 Standard includes selected mappings to internationally recognized sustainability frameworks to support alignment, traceability, and reporting integration. These mappings are provided to assist organizations in connecting project-level impact identification to widely adopted global standards.

Sustainable development goals (SDGs) alignments reference the **United Nations Sustainable Development Goals** and, where appropriate, specific targets most directly related to the element. SDG references indicate thematic alignment and do not imply certification or formal endorsement.

GRI alignments reference the **Global Reporting Initiative Standards**, which provide impact-focused disclosure guidance. These mappings support traceability between project-level sustainability impacts and enterprise-level reporting requirements.

Climate-related elements may reference the **Task Force on Climate-related Financial Disclosures (TCFD)** or the **IFRS Sustainability Disclosure Standards (ISSB)**, where relevant to governance, risk management, or metrics and targets. Such references are included only when the element directly relates to climate-related financial risk or resilience.

Framework mappings are informational. They are not exhaustive and do not imply that compliance with P5 satisfies reporting obligations under any external standard. Organizations remain responsible

2.3 The P5 Ontology

Figure 2-1 illustrates the P5 ontology. An ontology is a structured framework of concepts and relationships that organizes how a subject area is understood and evaluated. In P5, the ontology provides a systematic structure for identifying and assessing sustainability impacts arising from project decisions.

The P5 ontology organizes impacts across three domains—People, Planet, and Prosperity—and applies lenses that examine how project processes and outcomes affect these systems. This structure supports consistent evaluation of environmental, social, and economic effects across the project life cycle.

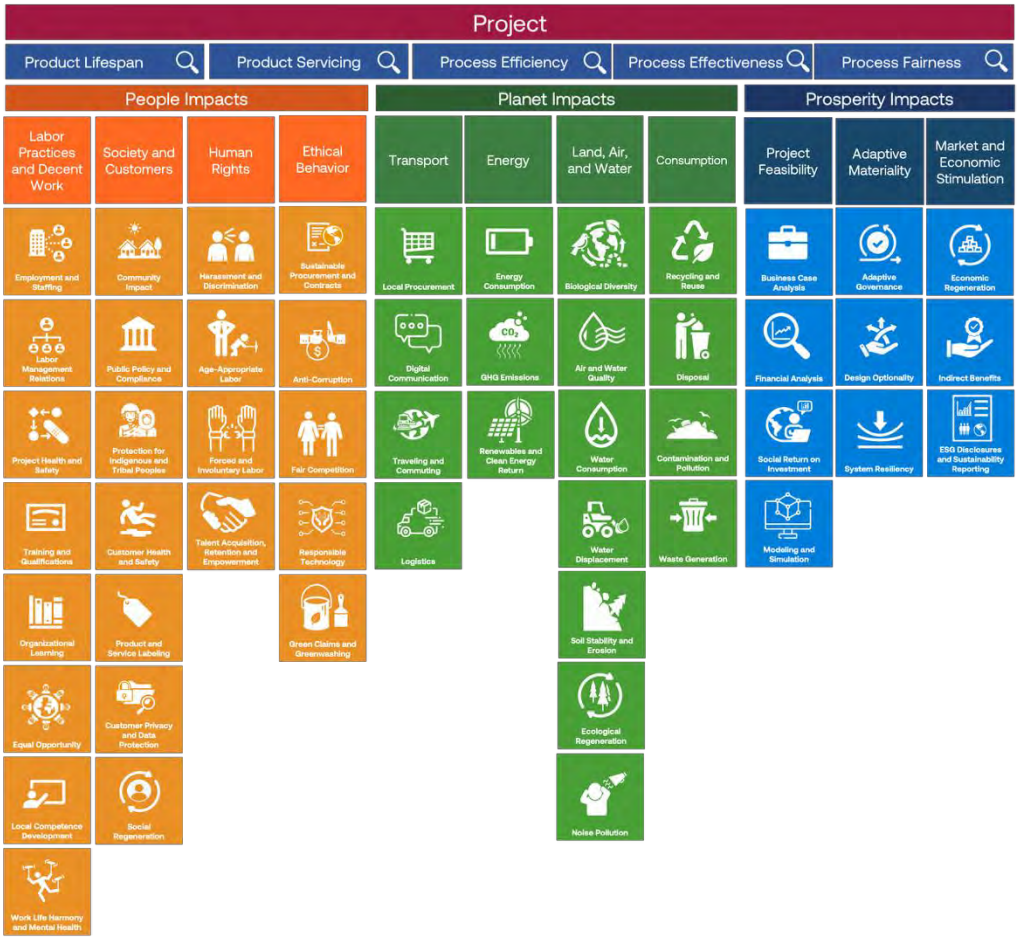

Figure 2-1 The P5 Ontology

The ontology is designed not only to identify negative impacts, but also to assess opportunities for measurable improvement relative to baseline conditions. In this way, it supports mitigation, restoration, and, where feasible, regenerative enhancement of ecological, social, and institutional systems.

By structuring sustainability impacts in this manner, the P5 ontology enables project teams to manage complexity, support governance decisions, and evaluate long-term system resilience in a disciplined and repeatable way.

Impact Response Continuum

The P5 ontology supports evaluation of sustainability impacts across a structured continuum of response:

- **Mitigation**—Reduction of negative impact
- **Restoration**—Return of affected systems to documented baseline conditions
- **Regeneration**—Measurable enhancement of system capacity beyond baseline conditions

Not all projects will achieve regenerative outcomes. However, where feasible, projects should assess whether decisions can move beyond mitigation or restoration toward demonstrable improvement in ecological, social, or institutional resilience.

Baseline and Measurement

All impact assessments within the P5 framework should be grounded in documented baseline conditions. Baselines establish the reference point against which mitigation, restoration, or regenerative enhancement

can be evaluated. Impact claims—particularly regenerative claims—must be supported by defined performance indicators, transparent methodology, and monitoring over an appropriate timeframe. Without baseline comparison and measurable evidence, impact assertions lack verifiability.

System Capacity

Sustainability impacts are not limited to isolated project events. Projects influence the long-term capacity of ecological, social, and economic systems to function, adapt, and endure. The P5 ontology supports disciplined evaluation of whether project decisions maintain, degrade, restore, or enhance that capacity over time. By integrating baseline assessment, life cycle thinking, and structured impact analysis, P5 enables project teams to evaluate not only immediate effects but also enduring system resilience.

2.4 P5 Categories, Subcategories, and Elements

The P5 ontology organizes sustainability impacts into three primary categories: People, Planet, and Prosperity. These categories represent the social, environmental, and economic dimensions affected by project decisions. Each category is divided into subcategories and elements that define specific areas of sustainability impact relevant to project activities, outputs, and servicing.

P5 evaluates impacts arising from how the project is executed (process), what the project produces (product), and how those outputs are used and maintained over time (servicing). This structure provides a systematic and repeatable method for identifying, evaluating, and managing sustainability impacts. P5 does not prescribe a project management methodology; it is an impact identification framework that can be applied within predictive, adaptive, or hybrid environments

Sections 3, 4, and 5 describe each category and its elements in detail, including recommended actions and potential sustainable outcomes. Where relevant, mappings to specific United Nations Sustainable Development Goal (SDG) targets and Global Reporting Initiative (GRI) standards are included to support traceability and reporting alignment.

Not all elements will be equally material for every project. The P5 Impact Analysis determines which impacts are significant in context based on magnitude, likelihood, and proximity to defined sustainability thresholds, allowing project teams to focus on the most consequential issues.

Figure 2-2 presents the hierarchy of the P5 ontology. The project is the object of analysis, and impacts are evaluated through five lenses—Lifespan, Servicing, Efficiency, Effectiveness, and Fairness—applied across the three sustainability domains and their subcategories and elements.

The structure of the P5 ontology complements the performance domain architecture described in the *PMBOK® Guide*—Eighth Edition. While the *PMBOK® Guide*—Eighth Edition emphasizes value delivery through integrated governance, stakeholder engagement, resource management, and risk control, P5 provides a systematic method for identifying environmental, social, and economic impacts that may influence those domains. In this way, P5 strengthens project-level evaluation without altering the underlying project management framework.

Figure 2-2 Hierarchy of the P5 Ontology

2.5 P5 Perspectives and Lenses

The impacts that a project's activities, outputs, and outcomes have on People, Planet, and Prosperity arise from decisions made about product characteristics and project management practices.

P5 analyzes these impacts through two perspectives and five lenses. The two perspectives are:

Product perspective—impacts arising from the project's results and long-term servicing
Process perspective—impacts arising from the management and execution of project activities

Each perspective is examined using the following lenses:

Lifespan and servicing—applied to the product perspective
Efficiency, effectiveness, and fairness—applied to the process perspective

Together, these five lenses provide a structured method for identifying sustainability impacts that might otherwise be overlooked. Figure illustrates how different lenses may reveal distinct impacts for a single P5 element.

	Lens	Impact Description
Product Perspective	Lifespan	At present, no local suppliers of renewable energy are able to meet even a portion of the factory's need for 200 megawatts (MW) of electricity.
	Servicing	No local suppliers are available to support ongoing maintenance of equipment once the factory is operational.
Process Perspective	Efficiency	Net-zero requirements create a need for sophisticated scheduling.
	Effectiveness	The project will need to source power from the grid during construction.
	Fairness	Preferred suppliers do not have a local presence.

Figure 2-3 Illustrative Product and Process Impacts

Example:

Project – Net Zero Ice Cream Factory

P5 | Domain – Environmental | Category – Transport | Element Local Procurement

Note that not every element will have impacts using all five lenses. However, all five should always be considered to avoid missing possibly significant impacts.

To illustrate how the lenses operate, consider a project to construct a net-zero ice cream factory. From a product perspective, the lifespan lens reveals that no local renewable energy provider can supply the required 200 MW of electricity, meaning the facility's long-term sustainability performance depends on external grid sources.

The servicing lens highlights that specialized equipment may require nonlocal vendors for ongoing maintenance, limiting local capability development. From a process perspective, the efficiency lens identifies increased scheduling complexity due to net-zero construction requirements. The effectiveness lens recognizes that temporary grid power will be required during construction, affecting emissions performance. The fairness lens reveals that preferred suppliers lack a local presence, raising questions about equitable economic participation. Each lens surfaces a different dimension of impact that might otherwise remain unseen.

2.6 P5 Impact Lenses for Product

A product may be a physical item (e.g., a building, a car, a vaccine), a service (e.g., a consulting report, a departmental reorganization, a training course), or another type of asset (e.g., a research report, a feasibility study). The results of a project are one or more products and are used to build capabilities that deliver outcomes that provide benefits to one or more stakeholders.

The P5 impact lenses address impacts throughout the product life cycle (Figure 2-4). Products commonly have a life cycle with five stages:

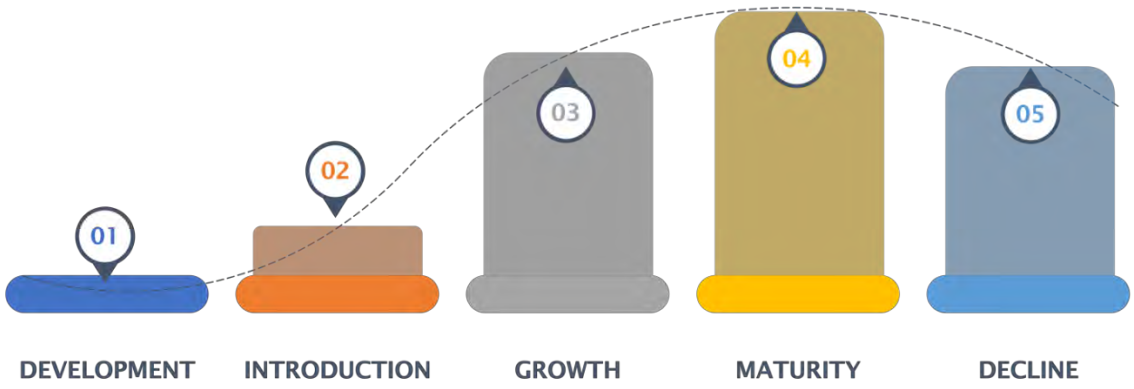

Figure 2-4 Typical Product Life Cycle

01. Development. This includes the research and development activities before a product is introduced to the market.
02. Introduction. The product is introduced to the market; sales growth is slow to moderate.
03. Growth. The product gains visibility; the rate of sales growth increases.
04. Maturity. The product is established; sales growth stabilizes.
05. Decline. The market becomes saturated or shrinks; sales growth decreases.

Most people associate projects with the development stage, but in fact, most products will be supported by multiple projects over the course of their product life cycle. For example:

- A hotel might have many maintenance and upgrade projects during its useful life.

- A passenger vehicle is generally updated annually with new features; each new version is created through one or more projects.
- Computer software is updated regularly with bug fixes and new features; each release is generally supported by one or more projects.

2.6.1 Product Lifespan Lens

The product lifespan lens (Figure 2-5) examines each P5 element from the perspective of the project outcome and its useful life. In this context, the "product" refers to the result delivered by the project—whether a physical asset, service capability, system, or infrastructure. This lens requires the project team to evaluate how that outcome performs environmentally, socially, and economically over its full life cycle.

When applying this lens, each P5 element should be reviewed to determine how the design, construction, deployment, and end-of-life characteristics of the project outcome influence long-term sustainability impacts.

The project team should:

- Evaluate the types and quantities of materials and resources required over the product's life cycle.
- Assess opportunities for reuse, recovery, repurposing, or recycling at end-of-life.
- Consider life cycle costs, including development, operation, maintenance, and disposal.
- Apply design approaches that reduce environmental and social harm over time.
- Assess greenhouse gas (GHG) emissions associated with operation and end-of-life.
- Evaluate value chain impacts associated with materials, components, and servicing.

Applying the product lifespan lens helps identify long-term impacts that may not be visible during project execution but are material to overall sustainability performance.

Figure 2-5 Product Lifespan Lens

Example
Project – Net-Zero Ice Cream Factory
Element – Energy Consumption
Lifespan impact – Long-term electricity demand exceeds local renewable supply, increasing lifetime emissions risk.

Mapping: Project – Product Lifespan – Planet Impacts – Energy – Energy Consumption

2.6.2 Product Servicing Lens

The product servicing lens (Figure 2-6) examines each P5 element from the perspective of how the project outcome is maintained, supported, and operated after delivery. It evaluates the sustainability impacts associated with ongoing use, maintenance, upgrades, and support activities over the life of the product.

When applying this lens, each P5 element should be reviewed to determine whether servicing requirements create additional environmental, social, or economic impacts beyond those identified during initial delivery.

The project team should:

- Assess maintenance requirements and associated resource use over time.
- Evaluate reliance on specialized or nonlocal suppliers for ongoing support.
- Consider operational energy, water, and material consumption during servicing.
- Identify waste generation or emissions resulting from maintenance activities.
- Evaluate long-term cost and performance implications of servicing strategies.
    - Hold the project value chain (see Section 2.8) to the same standards.

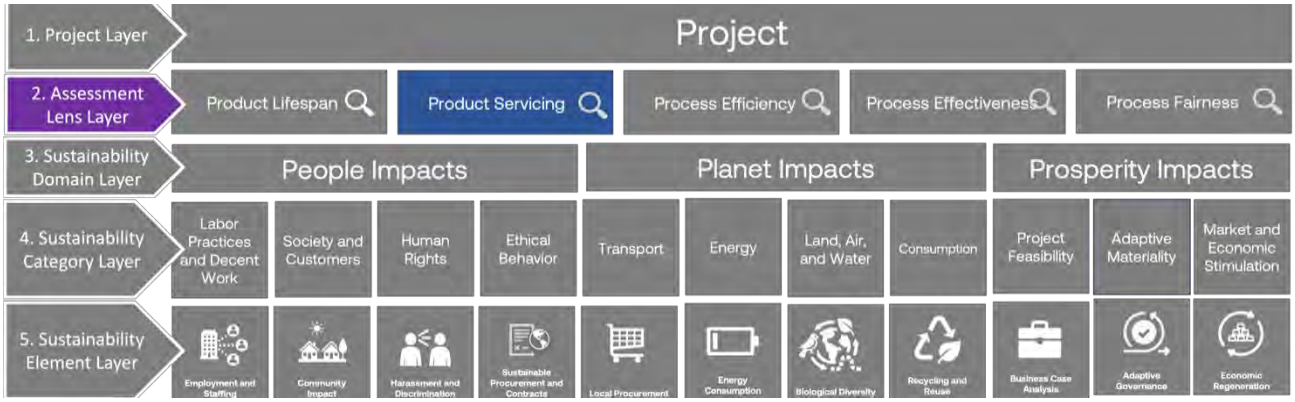

Figure 2-6 Product Servicing Lens

Example
Project – Net-Zero Ice Cream Factory
Element – Sustainable Procurement and Contracts
Servicing impact – Specified refrigeration units require proprietary maintenance contracts, increasing long-term cost and limiting local servicing capability.

Mapping: Project – Product Servicing – People Impacts – Ethical Behavior – Sustainable Procurement and Contracts

2.7 P5 Impact Lenses for Process

According to the ISO 9000 series of standards, a process is "a set of interrelated or interacting activities that transforms inputs into outputs." These interrelated or interacting activities apply *mechanisms* to *inputs* to generate *outputs* while subject to *constraints* as illustrated in 2-7.

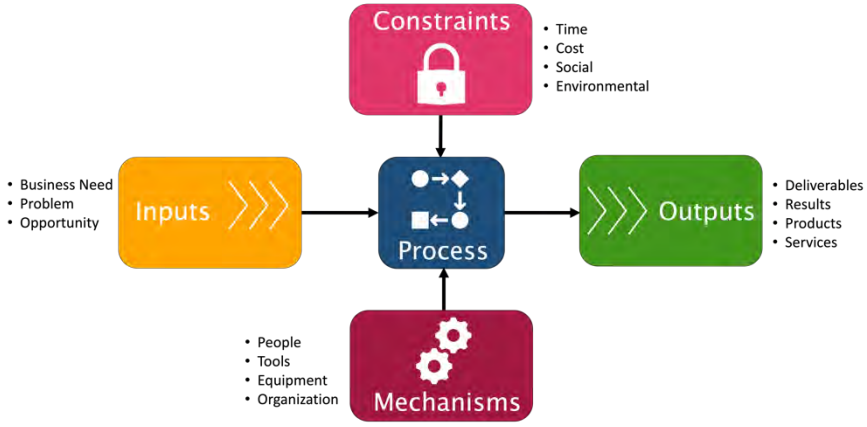

Figure 2-7 Process Components

Processes used in projects can be categorized into three major types:

- **Project management-oriented processes**, which are concerned with identifying, describing, and organizing the work of the project.
- **Product-oriented processes**, which are concerned with specifying and creating the project product (e.g., physical item, service, or other asset).
- **Support-oriented processes**, which provide relevant and valuable support to the other processes in disciplines such as logistics, finance, accounting, and safety.

The impacts of the project management-oriented processes are covered in this section. The impacts of product-oriented processes are covered in Section 2.4. Support-oriented processes that are performed by project team members are considered in this section. Support-oriented processes performed by suppliers or by others within the sponsoring organizations should be considered as part of the project's value chain.

Process impacts are often difficult to identify since they may be imposed on the project from outside.

From a P5 perspective, project management processes that do not consider sustainability factors would be viewed as inadequate. While such approaches may be effective in achieving traditional objectives, such as cost, time, and scope, they fail to consider the long-term impact of the project on the environment and society. It is crucial for the project team to adopt an approach that considers sustainability factors alongside traditional objectives when managing projects.

2.7.1 Efficiency of Project Processes

The process efficiency lens (Figure 2-8) examines each P5 element from the perspective of how project activities consume time, energy, materials, and financial resources. It evaluates whether project processes are structured to minimize unnecessary resource use while delivering the intended outcomes.

When applying this lens, each P5 element should be reviewed to determine whether project execution creates avoidable waste, duplication, delay, or resource intensity.

The project team should:

- Assess whether project processes consume excessive time, labor, energy, or materials.
- Identify process steps that create rework, redundancy, or avoidable delay.
- Evaluate resource utilization relative to defined project objectives.
- Consider alternative approaches that reduce resource intensity without compromising outcomes.

Figure 2-8 Process Efficiency Lens

Example
Project – Net-Zero Ice Cream Factory
Element – GHG Emissions
Efficiency impact – Poor sequencing increases idle equipment time and fuel consumption, raising emissions and cost.

Mapping: Project – Process Efficiency – Planet Impacts – Energy – Energy Consumption

2.7.2 Effectiveness of Project Processes

The process effectiveness lens (Figure 2-9) examines each P5 element from the perspective of whether project processes achieve their intended sustainability objectives. It evaluates whether governance, planning, risk management, and control mechanisms are producing the expected environmental, social, and economic outcomes.

When applying this lens, each P5 element should be reviewed to determine whether project processes are functioning as designed and whether they are adequately addressing identified sustainability risks and commitments.

The project team should:

- Assess whether project controls effectively identify and manage sustainability risks.
- Evaluate whether mitigation actions achieve the intended results.
- Determine whether reporting and monitoring processes produce reliable sustainability information.
- Identify gaps between planned sustainability objectives and actual performance.

Figure 2-9 Process Effectiveness Lens

Example

Project – Net-Zero Ice Cream Factory
Element – Local Procurement
Effectiveness impact – Procurement policies favored local suppliers, but contract awards did not reflect those commitments, limiting local economic benefit.

Mapping: Project – Process Effectiveness – Planet Impacts – Transport – Local Procurement

2.7.3 Fairness of Project Processes

The process fairness lens (Figure 2-10) examines each P5 element from the perspective of how project decisions distribute benefits, risks, and burdens among affected parties. It evaluates whether project processes create disproportionate impacts on specific individuals or groups.

Fairness does not require identical treatment. It requires equitable consideration of differences in vulnerability, access, and influence. Project processes that concentrate risks, restrict access, or create unequal participation may result in social, legal, or reputational exposure.

When applying this lens, each P5 element should be reviewed to determine whether project governance, procurement, workforce practices, and stakeholder engagement processes operate equitably.

The project team should:

- Assess whether project decisions disproportionately affect certain stakeholders.
- Evaluate transparency in decision-making and information access.
- Identify potential bias in supplier selection, workforce assignment, or stakeholder engagement.
- Confirm that grievance or appeal mechanisms are accessible and functional.

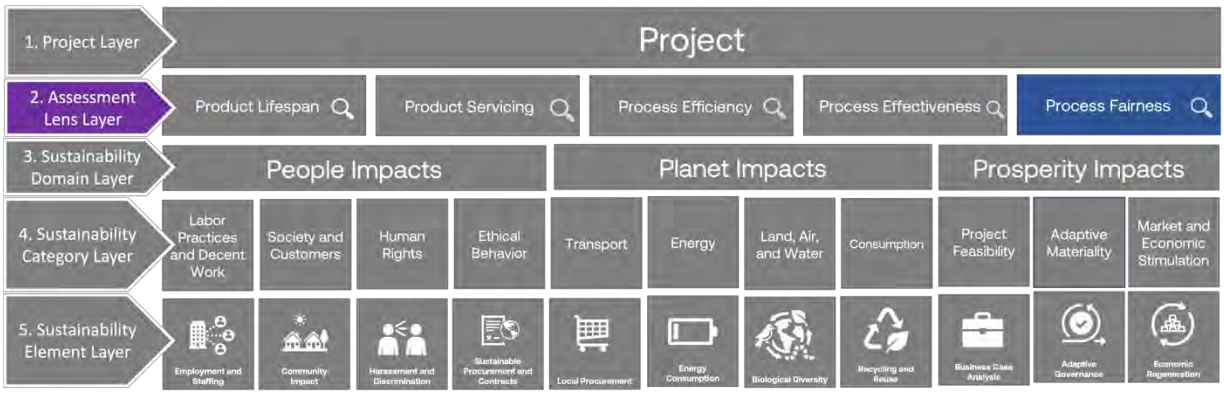

Figure 2-10 Process Fairness Lens

Example
Project – Net-Zero Ice Cream Factory
Element – Business Case Analysis
Fairness impact – Financial benefits accrue to corporate stakeholders while local communities bear increased traffic and infrastructure burden.

Mapping: Project – Process Fairness – Prosperity Impacts – Project Feasibility – Business Case Analysis

2.8 Value Chains

A value chain refers to the full range of activities, resources, and relationships associated with an organization's operations, products, and services. It includes both upstream activities (such as suppliers and contractors) and downstream activities (such as distribution, use, and end-of-life management), as well as entities directly linked to those activities.

In the project context, the project's value chain includes the activities, processes, suppliers, partners, and other stakeholders that contribute to the planning, delivery, operation, and servicing of the project outcome. The practices described in the P5 Standard should, where appropriate, be extended to relevant value chain participants whose activities may materially affect sustainability performance.

2.9 Portfolios, Programs, and Projects

P5 is primarily focused on projects, as they represent the operational level at which sustainability impacts are directly created and managed. Most projects exist within broader program and portfolio structures, where strategic alignment, resource allocation, and governance oversight occur.

While the P5 Standard is designed for project-level impact identification and evaluation, its structure can be applied at the program and portfolio levels with appropriate consideration of scope and aggregation. At these higher levels, sustainability impacts may be assessed collectively across multiple projects, with emphasis on cumulative effects, strategic risk exposure, and long-term value creation.

For example, at the program level, a renewable energy program composed of multiple construction projects may evaluate cumulative greenhouse gas reductions, total land-use impact, and aggregated workforce safety performance across all projects. At the portfolio level, an organization may assess how its entire capital investment portfolio aligns with decarbonization commitments, long-term resilience objectives, or defined sustainability thresholds.

The core principles, domains, and lenses of P5 remain applicable across portfolios, programs, and projects. However, the scale, materiality thresholds, and governance mechanisms may differ depending on the level of analysis.

2.10 Purpose and External Framework Alignment

The primary purpose of P5 is to identify potential positive and negative sustainability impacts associated with project activities, outputs, and servicing. These impacts are intended to be evaluated and presented to management to support informed decision-making and responsible resource allocation.

P5 supports alignment between project execution and organizational sustainability objectives by providing a structured method for identifying and evaluating environmental, social, and economic impacts.

The P5 Standard is informed by internationally recognized human rights instruments, labor principles, sustainability frameworks, and reporting standards. These include, but are not limited to:

- United Nations Universal Declaration of Human Rights
- International Covenant on Civil and Political Rights
- International Covenant on Economic, Social and Cultural Rights

- Convention on the Elimination of All Forms of Discrimination against Women
- ILO Declaration on Fundamental Principles and Rights at Work
- The 2030 Agenda for Sustainable Development and the Sustainable Development Goals
- Global Reporting Initiative (GRI) Standards
- IFRS Sustainability Disclosure Standards (including former SASB guidance)
- SA8000 Social Accountability Standard
- Ten Principles of the United Nations Global Compact

These references provide context for sustainability expectations and reporting practices. P5 does not replace or supersede these instruments; rather, it supports project-level impact identification that may contribute to organizational compliance and disclosure.

P5 is designed to integrate within established project management architectures. Modern project management guidance, including the *PMBOK® Guide*—Eighth Edition, is principles-based and emphasizes tailoring to align practices with organizational governance and desired outcomes. P5 does not prescribe a project management methodology. It provides structured sustainability impact identification that can be incorporated into predictive, adaptive, or hybrid project environments without altering their structural foundations.

3 People Impacts

Sustainability impacts identified through P5 should be evaluated alongside other project objectives and constraints when determining overall project value and risk exposure. This reinforces the integration of sustainability within project governance and supports informed decision-making within established project management frameworks.

The People category (Figure 3-1) addresses the social impacts that project activities, outputs, and servicing may have on individuals, communities, and society. It focuses on ethical conduct, fair treatment, human rights, workforce well-being, customer protection, and responsible engagement with suppliers and stakeholders.

Impacts within this category may arise from how the project is executed, how decisions are made, and how the resulting product or service affects those who interact with it.

The people category contains the following subcategories:

- Labor practices and decent work
- Society and customers
- Human rights
- Ethical behavior

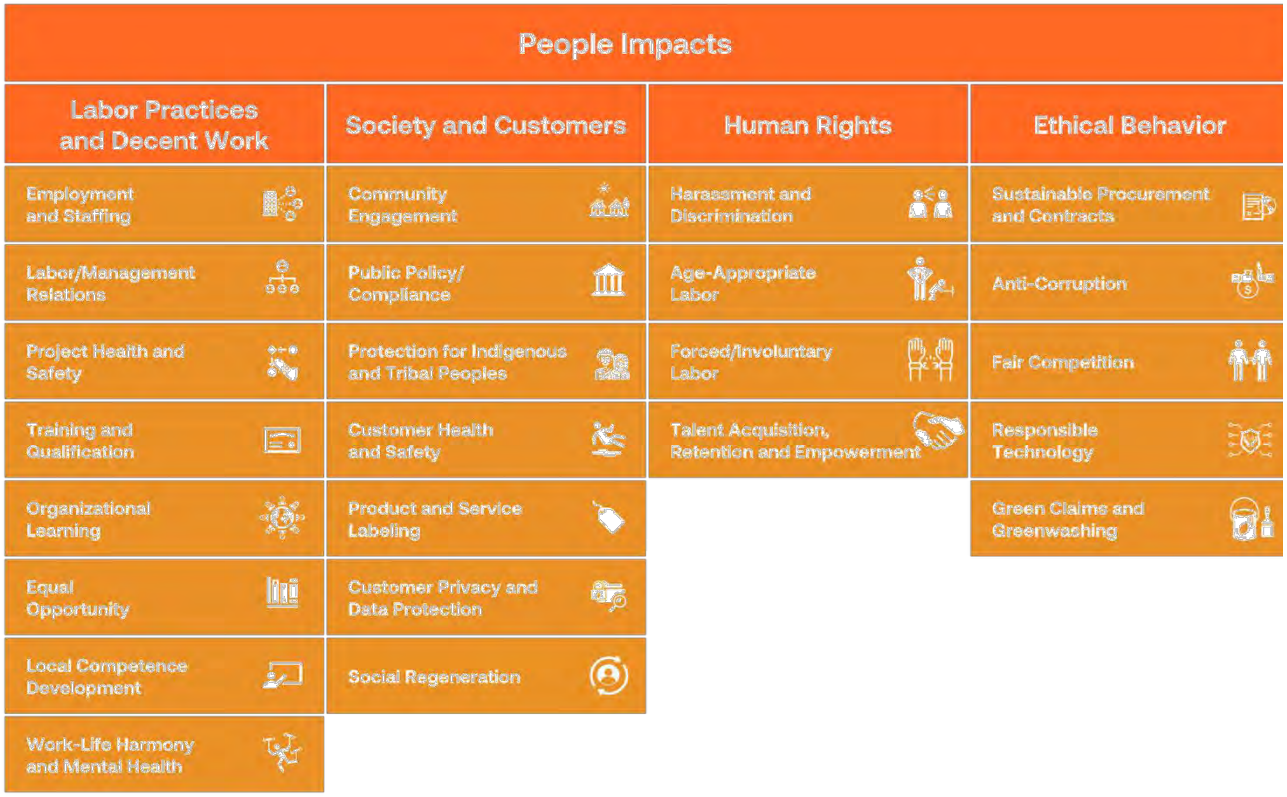

Figure 3-1 People Impacts

3.1 Labor Practices and Decent Work

Labor practices and decent work concern the conditions under which project personnel are engaged, managed, and protected. This subcategory addresses the protection of workers' rights, safe and healthy working conditions, fair compensation, equitable treatment, and opportunities for skill development.

Effective labor practices reduce operational risk, strengthen workforce stability, and support compliance with applicable labor standards. Inadequate labor practices may result in safety incidents, legal exposure, reputational harm, or workforce disruption.

This subcategory addresses the project's relationships with its workers and includes:

- Employment and staffing
- Labor/management relations
- Project health and safety
- Training and qualification
- Organizational learning
- Equal opportunity
- Local competence development
- Work-life harmony and mental health

Application Guidance

Impacts under this subcategory may arise from project processes, project outputs, or post-delivery servicing. The project team should evaluate each potential impact based on magnitude, likelihood, and proximity to defined sustainability thresholds.

This subcategory is likely material where workforce conditions affect safety, legal compliance, vulnerable populations, or operational continuity. Materiality should be reassessed throughout the project life cycle.

Where impacts are within project influence, the team should identify appropriate avoidance, mitigation, enhancement, or corrective strategies. Identified impacts and response actions may contribute to enterprise sustainability disclosures and governance reporting.

3.1.1 Employment and Staffing

This element addresses the policies, procedures, and practices that govern how personnel are engaged, supported, and managed within the project organization. It applies to supervisory bodies, project team members, and contracted personnel.

Employment and staffing include workforce planning, skills identification, recruitment, onboarding, performance management, training, compensation, and working conditions.

The project team should:

- Identify required competencies and align workforce planning accordingly.
- Assess skill gaps and address them through training, supervision, or reassignment.
- Ensure compensation and employment terms comply with applicable standards.
- Provide reasonable accommodations to support inclusive participation, including for individuals with disabilities, where applicable.
- Avoid reliance on exploitative or unstable labor arrangements.

Effective employment and staffing contribute to:

- Workforce stability and skill retention
- Reduced operational and safety risk associated with capability gaps
- Improved continuity of project execution
- Stronger long-term workforce capability

Impact Evaluation Considerations

1. Does the project rely on labor arrangements that increase vulnerability or reduce employment stability?
2. Are role assignments aligned with documented competencies, or do skill gaps create safety or quality risk?
3. Are compensation and working conditions consistent with applicable standards?
4. Do workforce practices create disproportionate impacts on certain groups?
5. Could deficiencies in workforce planning materially affect safety, performance, or reputation?

Where impacts are significant, affect vulnerable workers, or create regulatory or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed in the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.5) and SDG 10 (Target 10.3)

3.1.2 Labor/Management Relations

This element addresses the quality and stability of working relationships between management and the project workforce, including employees and contracted personnel. It evaluates whether project governance, communication practices, and dispute resolution mechanisms support respectful, transparent, and constructive engagement.

In the project context, labor/management relations affect morale, productivity, conflict risk, and continuity of operations. Weak relations may result in grievances, work disruption, reputational damage, or regulatory exposure.

The project team should:

- Define and communicate clear roles, responsibilities, and reporting lines.
- Establish and implement formal grievance- and dispute-resolution mechanisms.
- Enforce fair treatment and nonretaliation practices.
- Maintain open communication across organizational levels.
- Monitor indicators of workforce dissatisfaction, conflict, or escalation risk.

Effective labor/management relations contribute to:

- Reduced risk of disputes, stoppages, or operational disruption
- Improved team performance and coordination
- Increased workforce stability and retention

Impact Evaluation Considerations

1. Are formal grievance mechanisms established and accessible?
2. Have disputes or complaints occurred, and how were they resolved?
3. Is there evidence of retaliation, intimidation, or unresolved conflict?
4. Do reporting structures create barriers to raising concerns?
5. Could labor disputes materially affect schedule, cost, safety, or reputation?

Where impacts are significant or create operational, legal, or reputational exposure, they should be formally assessed in the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.8) and SDG 16 (Target 16.6)
- GRI Alignment: GRI 401 and GRI 405

3.1.3 Project Health and Safety

This element addresses the protection of workers from physical and occupational harm arising from project activities. It evaluates whether project processes create exposure to injury, illness, or unsafe working conditions and whether appropriate controls are in place.

Project health and safety encompass hazard identification, risk mitigation, training, protective measures, and incident management. Its objective is to prevent avoidable harm and reduce exposure to operational and regulatory risk.

The project team should:

- Identify and comply with applicable health and safety laws and standards.
- Conduct hazard assessments and implement appropriate risk controls.
- Provide suitable protective equipment, training, and supervision.
- Establish clear procedures for reporting incidents and near-misses.
- Investigate incidents to identify root causes and corrective actions.
- Maintain emergency preparedness for routine and nonroutine activities.
- Periodically review and update safety practices.

Effective health and safety management contributes to:

- Reduced injury and illness rates
- Lower risk of operational disruption and regulatory penalties
- Increased workforce confidence and sustained performance

Impact Evaluation Considerations

1. Do project activities introduce significant physical, chemical, ergonomic, or psychosocial hazards?
2. Are hazard controls proportionate to the level of risk identified?
3. Have incidents, near-misses, or safety complaints occurred, and were corrective actions implemented?
4. Could safety deficiencies materially affect schedule, cost, compliance, or reputation?
5. Are emergency response procedures adequate for foreseeable scenarios?

Where impacts are significant or create operational, legal, or reputational exposure, they should be formally assessed in the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.8) and SDG 3 (Target 3.9)
- GRI Alignment: GRI 403
- TCFD Alignment: Risk Management; Metrics and Targets (where safety risk materially affects operational resilience)
- ISSB Alignment: Workforce health and safety disclosures, where material to enterprise risk and performance

3.1.4 Training and Qualification

This element addresses the capability of the project workforce to perform assigned activities safely, effectively, and competently. It evaluates whether project roles are aligned with appropriate qualifications and whether capability gaps create operational, safety, or quality risks.

Training and qualification encompass skills identification, competency assessment, workforce development, and ongoing capability assurance throughout the project life cycle.

The project team should:

- Define required competencies for each project role.
- Assess workforce capability against defined role requirements.
- Address identified skill gaps through training, supervision, or reassignment.
- Avoid assigning personnel to roles for which they are not adequately qualified.
- Provide structured learning and knowledge transfer mechanisms, where appropriate.
- Monitor performance to confirm continued competency alignment.

Effective training and qualification contribute to:

- Reduced operational and safety risk
- Improved quality and reliability of project outputs
- Greater workforce stability and retention
- Improved project performance through competent execution

Impact Evaluation Considerations

1. Are defined competencies documented for each role?
2. Do identified skill gaps create measurable safety, quality, or schedule risk?
3. Have training or supervision measures been implemented to address deficiencies?
4. Are errors, rework, or incidents linked to insufficient capability?
5. Could competency gaps materially affect compliance, performance, or reputation?

Where impacts are significant or create operational, safety, or quality exposure, they should be formally assessed in the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 4 (Target 4.4) and SDG 8 (Target 8.5)
- GRI Alignment: GRI 404
- TCFD Alignment: Governance; Risk Management (where workforce capability affects resilience or risk control)
- ISSB Alignment: Workforce skills and capability disclosures, where material to performance and risk

3.1.5 Organizational Learning

This element addresses the systematic capture, retention, and application of knowledge generated during the project. It evaluates whether sustainability-related insights, risks, mitigation effectiveness, threshold breaches, and performance outcomes are documented and reused to improve future decision-making.

Organizational learning reduces the recurrence of avoidable impacts, strengthens institutional resilience, and supports continuous improvement in sustainability performance.

The project team should:

- Incorporate relevant lessons learned from prior projects into planning and risk identification.
- Document sustainability-related risks, mitigation effectiveness, threshold breaches, and performance outcomes.
- Capture both successful and unsuccessful interventions to prevent recurrence.
- Establish mechanisms for knowledge transfer across programs, portfolios, and organizational units.
- Ensure sustainability performance data is retained, traceable, and accessible for future use.
- Review prior learning when reassessing materiality and intervention strategies.

Effective organizational learning contributes to:

- Reduced recurrence of safety, environmental, or social incidents
- Improved quality and consistency of impact assessments
- Faster identification of material sustainability risks
- Greater reliability in sustainability reporting
- Stronger institutional resilience and adaptive capacity

Impact Evaluation Considerations

1. Are sustainability-related lessons documented and accessible?
2. Are mitigation outcomes evaluated for effectiveness and reused appropriately?
3. Have threshold breaches or recurring issues been addressed systemically?
4. Is knowledge transferred across teams and future projects?
5. Could failure to retain or apply learning materially affect performance or compliance?

Where impacts are significant or create recurring operational, environmental, or social risk, they should be formally assessed in the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 9 (Target 9.5) and SDG 12 (Target 12.6)
- GRI Alignment: GRI 404 and GRI 3
- TCFD Alignment: Governance; Risk Management (where knowledge management affects climate-related risk oversight)

3.1.6 Equal Opportunity

This element addresses the fair and nondiscriminatory access to roles, responsibilities, and advancement within the project organization. It evaluates whether employment and engagement decisions are based on merit and role requirements rather than protected characteristics or bias.

Equal opportunity in the project context includes recruitment, role assignment, promotion, evaluation, and participation in decision-making processes. Failure to uphold equal opportunity may create legal exposure, reputational risk, workforce instability, and diminished project performance.

The project team should:

- Ensure role assignments are based on documented competencies and qualifications.
- Maintain nondiscrimination practices in recruitment and advancement decisions.
- Provide reasonable accommodations for individuals with disabilities or other accessibility needs.
- Implement transparent performance evaluation criteria.
- Monitor workforce composition and promotion patterns for indicators of systemic bias.

Support for equal opportunity contributes to:

- Reduced legal and regulatory risk
- Improved workforce stability and retention
- Increased diversity of perspectives in problem-solving and decision-making
- Strengthened organizational credibility and stakeholder trust

Impact Evaluation Considerations

1. Are recruitment and advancement decisions based on documented, role-specific criteria?
2. Are there patterns indicating bias in role assignment, promotion, or compensation?
3. Are reasonable accommodations provided, where required?
4. Have discrimination complaints or grievances occurred, and how were they resolved?
5. Could inequitable practices materially affect compliance, performance, or reputation?

Where impacts are significant or create legal, operational, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 5 (Target 5.1) and SDG 10 (Target 10.3)
- GRI Alignment: GRI 405 and GRI 406
- TCFD Alignment: Governance (where diversity oversight influences risk governance)

3.1.7 Local Competence Development

This element addresses the development and utilization of local skills, knowledge, and institutional capacity in the communities where the project operates. It evaluates whether the project strengthens sustainable workforce capability and supplier participation rather than relying solely on imported expertise.

Local competence development includes workforce training, knowledge transfer, supplier capability building, and structured engagement with local institutions. Insufficient local capability may create long-term dependency, economic exclusion, or reputational risk.

The project team should:

- Assess local workforce and supplier capabilities during project planning.
- Prioritize qualified local labor and service providers, where feasible.
- Include knowledge transfer and training requirements in contracts and supplier agreements.
- Establish measurable local employment or capacity-building targets, where appropriate.
- Collaborate with local institutions to support long-term skills development.

Effective local competence development contributes to:

- Increased sustainable workforce capacity in the local area
- Reduced long-term dependency on external expertise
- Improved local economic participation and inclusion
- Enhanced project resilience through stronger local capability

Impact Evaluation Considerations

1. Does the project rely predominantly on nonlocal expertise where local capability could be developed?
2. Are knowledge transfer and capacity-building commitments documented and measurable?
3. Do procurement practices enable or restrict local supplier participation?
4. Could limited local capability create long-term economic or operational dependency?
5. Would failure to support local development materially affect community relations or project sustainability?

Where impacts are significant or create economic, social, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.3) and SDG 4 (Target 4.4)
- GRI Alignment: GRI 203 and GRI 404
- TCFD Alignment: Governance (where local capability influences operational resilience)

3.1.8 Work-Life Harmony and Mental Health

This element addresses the management of psychosocial risk and workload conditions that may affect the mental health, well-being, and sustained performance of project personnel. It evaluates whether project demands, schedules, and working conditions create undue stress, fatigue, or burnout risk.

Project environments may involve compressed timelines, uncertainty, and elevated pressure. Failure to manage psychosocial risk can result in errors, safety incidents, reduced productivity, and workforce instability.

The project team should:

- Assess workload, schedule pressure, and role clarity for psychosocial risk.
- Implement reasonable flexibility where operationally feasible.
- Provide mechanisms for reporting mental health concerns without retaliation.
- Mitigate identified workplace stressors within project control.
- Support participation of workers managing mental health conditions.

Effective management of work-life harmony and mental health contributes to:

- Reduced error rates and safety incidents linked to fatigue or stress.
- Improved sustained performance under demanding conditions.
- Lower turnover and workforce disruption.
- Greater resilience in high-pressure project environments.

Impact Evaluation Considerations

1. Do project schedules or workload patterns create sustained fatigue or stress exposure?
2. Are psychosocial risks assessed and documented during planning and execution?
3. Have stress-related incidents, absenteeism, or turnover increased during peak periods?
4. Are reporting mechanisms for mental health concerns accessible and used appropriately?
5. Could unmanaged psychosocial risk materially affect safety, quality, or project performance?

Where impacts are significant or create operational, safety, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 3 (Target 3.4) and SDG 8 (Target 8.8)
- GRI Alignment: GRI 403 and GRI 401
- TCFD Alignment: Governance; Risk Management (where psychosocial risk affects operational resilience)

3.2 Society and Customers

This category addresses the impacts that project activities, outputs, and servicing may have on communities, customers, and other external stakeholders. It evaluates how project decisions affect public safety, community well-being, regulatory compliance, and responsible product or service delivery.

Projects may influence society through direct operations, supply chains, infrastructure use, and long-term product performance. Customer impacts include health and safety considerations, transparency of information, data protection, and the equitable distribution of benefits and burdens.

This category includes:

- Community engagement
- Public policy and compliance
- Protection of indigenous and tribal peoples
- Customer health and safety
- Product and service labeling
- Customer privacy and data protection

Application Guidance

Impacts under this category may arise from project processes, project outputs, or postdelivery servicing. The project team should evaluate potential impacts on communities and customers based on magnitude, likelihood, duration, and proximity to defined sustainability thresholds or legal requirements.

This category is likely material where impacts affect public health or safety, vulnerable populations, indigenous or tribal communities, regulatory compliance, or data protection obligations. Materiality should be reassessed throughout the project life cycle, particularly where stakeholder expectations, regulatory conditions, or project scope change.

Where impacts are within project influence, the team should identify appropriate avoidance, mitigation, enhancement, or corrective strategies. Identified impacts and response actions may contribute to enterprise sustainability disclosures, regulatory reporting, and stakeholder communications.

3.2.1 Community Engagement

This element addresses how the project engages with communities that may be affected by its activities, outputs, or servicing. It evaluates whether community interests, concerns, and potential impacts are identified, considered, and managed through structured and transparent engagement processes.

Community engagement supports social license to operate and reduces the risk of conflict, delay, reputational damage, or regulatory intervention.

The project team should:

- Identify communities that may be directly or indirectly affected by project activities.
- Establish structured mechanisms for two-way communication.
- Disclose potential impacts in a clear and timely manner.
- Document and respond to community concerns or objections.
- Monitor community sentiment and emerging issues throughout the project life cycle.

Effective community engagement contributes to:

- Reduced risk of opposition, protest, or delay
- Improved alignment between project objectives and community expectations
- Greater transparency and accountability
- Strengthened long-term stakeholder trust

Impact Evaluation Considerations

1. Have affected communities been identified and meaningfully engaged?
2. Are potential impacts disclosed before decisions are finalized?
3. Have concerns been formally documented and addressed?
4. Is there evidence of unresolved community opposition or escalating tension?
5. Could community dissatisfaction materially affect schedule, cost, compliance, or reputation?

Where impacts are significant or create social, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 11 (Target 11.3) and SDG 16 (Target 16.7)
- GRI Alignment: GRI 413
- TCFD Alignment: Governance (where community impacts influence strategic risk)

3.2.2 Public Policy and Compliance

This element addresses the project's compliance with applicable laws, regulations, and public policy requirements. It evaluates whether project activities, outputs, and servicing align with legal obligations and regulatory expectations throughout the project life cycle.

Failure to comply may result in fines, delays, litigation, reputational damage, or revocation of permits and approvals.

The project team should:

- Identify applicable legal and regulatory requirements during planning.
- Monitor regulatory changes that may affect project scope or execution.
- Integrate compliance controls into project governance and oversight.
- Document compliance activities and corrective actions.
- Escalate identified noncompliance risks through established governance channels.

Effective public policy and compliance contribute to:

- Reduced legal and regulatory risk
- Improved project continuity and schedule stability
- Greater transparency and accountability in project execution
- Lower likelihood of enforcement actions or penalties

Impact Evaluation Considerations

1. Have all relevant legal and regulatory requirements been identified?
2. Are compliance controls embedded within project governance processes?
3. Have compliance gaps or violations been identified and addressed?
4. Could regulatory noncompliance materially affect schedule, cost, or authorization to operate?
5. Are changes in public policy likely to alter project viability or risk exposure?

Where impacts are significant or create legal, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 16 (Targets 16.6 and 16.3)
- GRI Alignment: GRI 2-27 and GRI 419
- TCFD Alignment: Governance; Risk Management (where regulatory exposure affects climate-related financial risk)

3.2.3 Protection for Indigenous and Tribal Peoples

This element addresses the protection of the rights, lands, cultures, and identities of indigenous and tribal peoples who may be affected by project activities, outputs, or servicing. It evaluates whether project decisions respect recognized rights and avoid adverse impacts on cultural heritage, traditional lands, and community autonomy.

Failure to adequately protect these rights may result in legal challenges, project delays, loss of social license, or regulatory intervention.

The project team should:

- Identify whether indigenous or tribal peoples may be affected by project activities.
- Respect land use rights, cultural heritage, and recognized forms of autonomy.
- Engage affected leaders or representative bodies in planning and decision-making.
- Provide timely and accurate information regarding activities that may affect their interests.
- Apply principles consistent with free, prior and informed consent, where required by law or recognized standards.
- Incorporate local competence development, where appropriate.

Effective protection of indigenous and tribal peoples contributes to:

- Reduced risk of legal disputes or project suspension
- Improved environmental and cultural impact identification through local knowledge
- Greater stability and continuity of project operations
- Strengthened trust and long-term community relationships

Impact Evaluation Considerations

1. Have affected indigenous or tribal communities been identified and meaningfully consulted?
2. Are land use, cultural heritage, or resource rights impacted by project activities?
3. Is consent required under applicable law or recognized standards?
4. Could project activities materially affect cultural practices or traditional livelihoods?
5. Could failure to engage appropriately result in legal, regulatory, or reputational risk?

Where impacts are significant or create legal, social, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 10 (Target 10.2) and SDG 16 (Target 16.7)
- GRI Alignment: GRI 411 and GRI 413
- TCFD Alignment: Governance (where land use and social conflict create strategic risk)
- ISSB Alignment: Community and human rights disclosures, where material

3.2.4 Customer Health and Safety

This element addresses the protection of customers and end users from harm arising from the design, delivery, or use of the project's results. It evaluates whether project outputs create physical, environmental, or psychosocial risks to users and whether appropriate safeguards are embedded in design and operation.

Failure to address customer health and safety may result in injury, liability claims, regulatory action, or loss of market trust.

The project team should:

- Identify applicable safety standards, laws, and regulatory requirements.
- Assess potential hazards associated with product or service use.
- Incorporate risk-reduction measures into design and operational planning.
- Provide clear and accurate information regarding safe use and potential risks.
- Monitor and address reported safety issues during deployment or servicing.

Effective management of customer health and safety contributes to:

- Reduced risk of injury or harm to end users
- Lower likelihood of product liability or regulatory penalties
- Improved reliability and long-term acceptance of the project outcome
- Increased stakeholder confidence in the safety of the delivered product or service

Impact Evaluation Considerations

1. Does the project outcome introduce foreseeable hazards to users?
2. Are safety standards integrated into design and validation processes?
3. Have risk assessments identified potential misuse or unintended consequences?
4. Is hazard communication clear and accessible to end users?
5. Could safety deficiencies materially affect legal exposure, compliance, or public trust?

Where impacts are significant or create legal, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 3 (Target 3.9) and SDG 12 (Target 12.4)
- GRI Alignment: GRI 416
- TCFD Alignment: Risk Management (where product safety affects enterprise risk exposure)

3.2.5 Product and Service Labeling

This element addresses the accuracy, transparency, and completeness of information provided about the project's outputs. It evaluates whether products or services are labeled in a manner that clearly communicates content, sourcing, safe use, disposal requirements, and material sustainability characteristics.

Inaccurate or misleading labeling may result in regulatory penalties, consumer harm, or reputational damage.

The project team should:

- Ensure compliance with applicable labeling laws and standards.
- Disclose relevant safety, hazard, and usage information clearly and accurately.
- Provide accurate information regarding sourcing, composition, and life cycle considerations, where applicable.
- Avoid unsubstantiated environmental or sustainability claims.
- Ensure that sustainability-related statements are supported by verifiable evidence.
- Consider end-of-life handling and disposal information, where relevant.

Effective product and service labeling contributes to:

- Improved transparency and informed customer decision-making
- Reduced risk of regulatory enforcement or misrepresentation claims
- Lower likelihood of greenwashing allegations
- Greater trust in the integrity of project outcomes

Impact Evaluation Considerations

1. Are labeling claims supported by verifiable evidence?
2. Do labeling practices comply with applicable regulatory requirements?
3. Is hazard and safe-use information clear and accessible?
4. Could misleading or incomplete labeling create consumer harm or liability exposure?
5. Are sustainability claims substantiated and consistent with documented performance?

Where impacts are significant or create legal, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Targets 12.8 and 12.4)
- GRI Alignment: GRI 417
- TCFD Alignment: Governance (where product claims affect disclosure integrity)

3.2.6 Customer Privacy and Data Protection

This element addresses the protection of customer data and personal information during project execution and throughout the life cycle of the project's outputs. It evaluates whether project activities and resulting systems adequately safeguard confidentiality, integrity, and lawful use of customer data.

Failure to protect customer data may result in legal penalties, financial loss, operational disruption, or significant reputational harm.

The project team should:

- Identify applicable data protection laws and regulatory requirements.
- Limit data collection and processing to legitimate and defined purposes.
- Implement appropriate access controls and data security measures.
- Ensure third-party service providers meet equivalent data protection standards.
- Train personnel with access to sensitive information on data protection responsibilities.
- Monitor and respond to identified vulnerabilities or incidents.

Effective customer privacy and data protection contribute to:

- Reduced risk of data breaches or unauthorized disclosure
- Lower likelihood of regulatory penalties or litigation
- Improved operational resilience in digital environments
- Increased confidence in the integrity of project outputs

Impact Evaluation Considerations

1. Does the project collect, process, or store personal or sensitive data?
2. Are access controls and monitoring mechanisms documented and enforced?
3. Have data breach risks been assessed and mitigated?
4. Are third-party data processors evaluated for compliance?
5. Could privacy failure materially affect legal exposure, operations, or stakeholder trust?

Where impacts are significant or create legal, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 16 (Target 16.6) and SDG 9 (Target 9.c)
- GRI Alignment: GRI 418
- TCFD Alignment: Governance; Risk Management (where data security affects enterprise risk)

3.2.7 Social Regeneration

This element addresses the organization's contribution to the strength, resilience, and long-term capacity of the social systems affected by its activities. It evaluates whether work improves the ability of people, communities, and institutions to sustain wellbeing, participate in decisions, and maintain social cohesion over time.

Weak social conditions may result in loss of trust, community opposition, reduced resilience, inequitable distribution of value, and deterioration of the social systems upon which the organization depends.

The project team should:

- identify the people, communities, and institutions affected by the organization's activities, including
- those affected through the value chain;
- assess how the organization's activities influence social capacity, resilience, participation, and access to opportunity;
- establish and maintain conditions that protect dignity, equity, inclusion, and meaningful participation;
- design activities in ways that strengthen local capability, institutional trust, and long-term resilience;
- monitor whether the organization's activities are strengthening or weakening the surrounding social systems;

Effective social regeneration contributes to:

- stronger and more resilient communities and institutions;
- improved trust and longer-term stakeholder relationships;
- increased social stability in the environments in which the organization operates;

Impact Evaluation Considerations

1. Do the organization's activities strengthen or weaken the long-term capacity of affected communities and institutions?
2. Are dignity, equity, participation, and access to opportunity being maintained or improved?
3. Is value created by the organization's activities distributed in a way that strengthens the surrounding social system?
4. Do affected stakeholders have meaningful opportunities to influence decisions that shape outcomes?
5. Could current activities create dependency, exclusion, inequity, or erosion of trust over time?

Where impacts are significant or affect social resilience, equity, trust, or long-term community capacity, they should be formally assessed within the P5 Impact Analysis and addressed through appropriate management and intervention processes.

Reporting and Disclosure Mappings and Linkages

- GRI Alignment: GRI 3, GRI 203, GRI 413
- SASB / ISSB Alignment: Industry-dependent community relations, human capital, and social impact disclosures
- TCFD / IFRS S2 Alignment: Governance and Risk Management where social conditions materially affect resilience, continuity, or stakeholder trust

3.3 Human Rights

This category addresses the responsibility of projects to respect and avoid adverse impacts on internationally recognized human rights. It evaluates whether project activities, outputs, and associated value chain relationships create the risk of rights violations affecting workers, communities, or other stakeholders.

Human rights considerations include protection from discrimination, exploitation, coercion, and abuse, as well as respect for fundamental freedoms and equal treatment under the law. Projects may create direct or indirect impacts through employment practices, procurement, land use, security arrangements, or community engagement.

Failure to respect human rights may result in legal liability, project suspension, regulatory action, supply chain disruption, or reputational harm.

This category includes:

- Harassment and discrimination
- Age-appropriate labor
- Forced and involuntary labor
- Talent acquisition, retention, and empowerment

Application Guidance

Impacts under this category may arise from project processes, project outputs, or associated value chain relationships. The project team should evaluate potential human rights impacts based on magnitude, likelihood, severity, and proximity to vulnerable populations.

This category is likely material where project activities affect labor conditions, community rights, freedom of association, or land use. Materiality should be reassessed throughout the project life cycle, particularly where operating contexts involve heightened human rights risk.

Where impacts are within project influence, the team should identify appropriate avoidance, mitigation, or corrective strategies. Identified impacts and response actions may contribute to enterprise human rights due diligence and sustainability reporting.

3.3.1 Harassment and Discrimination

This element addresses the prevention of harassment and unlawful discrimination within project activities and associated value chain relationships. It evaluates whether project governance, employment practices, and oversight mechanisms protect individuals from discriminatory treatment or abusive conduct.

Harassment and discrimination may occur in recruitment, role assignment, supervision, supplier interactions, or community engagement. Failure to prevent or address such conduct may result in legal liability, regulatory penalties, workforce instability, or reputational harm.

The project team should:

- Establish and enforce clear nondiscrimination and anti-harassment policies consistent with applicable law.
- Provide training on acceptable conduct and reporting mechanisms.
- Implement confidential and accessible grievance procedures.
- Investigate reported incidents promptly and impartially.
- Apply equivalent standards to suppliers and contracted personnel.

Effective management of harassment and discrimination contributes to:

- Reduced legal and regulatory exposure
- Lower workforce disruption and turnover
- Improved stability and continuity of project operations
- Strengthened trust among workers and stakeholders

Impact Evaluation Considerations

1. Have anti-harassment and nondiscrimination policies been formally established?
2. Are reporting and grievance mechanisms accessible and used appropriately?
3. Have complaints or incidents occurred, and how were they resolved?
4. Do supplier or contractor practices introduce additional discrimination risk?
5. Could failures in this area materially affect compliance, workforce stability, or reputation?

Where impacts are significant or create legal, operational, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 5 (Target 5.1) and SDG 10 (Target 10.3)
- GRI Alignment: GRI 406
- TCFD Alignment: Governance (where workforce conduct risk affects oversight)

3.3.2 Age-Appropriate Labor

This element addresses the prevention of child labor and the protection of minors from exploitation within project activities and associated value chain relationships. It evaluates whether project operations and suppliers comply with minimum age requirements and avoid work that is hazardous, coercive, or detrimental to a child's development.

Age-appropriate labor requires adherence to applicable law and internationally recognized labor standards. Failure to prevent child labor may result in severe legal, ethical, and reputational consequences, including project suspension or supply chain disruption.

The project team should:

- Identify applicable minimum age laws and recognized labor standards.
- Verify that all workers meet legal age requirements.
- Ensure that work assigned to young workers does not interfere with education or well-being.
- Conduct due diligence on suppliers and contractors to prevent child labor in the value chain.
- Establish corrective action procedures for any identified violations.

Effective management of age-appropriate labor contributes to:

- Protection of minors from exploitation or harm
- Reduced legal and regulatory exposure
- Lower risk of supply chain disruption
- Improved integrity and accountability in project operations

Impact Evaluation Considerations

1. Have minimum age requirements been verified for all project personnel?
2. Are supplier and contractor labor practices monitored for compliance?
3. Is there risk of hazardous or exploitative conditions affecting minors?
4. Have any violations been identified and addressed through corrective action?
5. Could failure to prevent child labor materially affect legal compliance or project continuity?

Where impacts are significant or create legal, ethical, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.7) and SDG 16 (Target 16.2)
- GRI Alignment: GRI 408
- TCFD Alignment: Governance (where labor rights violations create enterprise risk)

3.3.3 Forced and Involuntary Labor

This element addresses the prevention of forced, bonded, trafficked, or involuntary labor within project activities and associated value chain relationships. It evaluates whether work is performed voluntarily and free from coercion, deception, intimidation, or threat of penalty.

Forced and involuntary labor includes situations where individuals cannot leave employment freely, where recruitment practices are deceptive or coercive, or where identity documents or wages are withheld. Failure to prevent such practices may result in severe legal liability, criminal exposure, supply chain disruption, and loss of operating authority.

The project team should:

- Identify applicable labor protection laws and internationally recognized standards.
- Ensure recruitment practices are transparent and free from deception or coercion.
- Prohibit withholding of identity documents, wages, or freedom of movement.
- Establish confidential grievance mechanisms accessible to all workers.
- Conduct due diligence on suppliers and contractors to identify forced labor risks.
- Implement corrective action procedures for any identified violations.

Effective prevention of forced and involuntary labor contributes to:

- Protection of workers from exploitation and coercion
- Reduced legal and criminal exposure
- Improved supply chain integrity and stability
- Stronger compliance with labor and human rights standards

Impact Evaluation Considerations

1. Are recruitment practices documented and transparent?
2. Is there evidence of coercion, intimidation, wage withholding, or restricted movement?
3. Are supplier and contractor labor practices monitored and verified?
4. Have grievances related to forced labor been reported and addressed?
5. Could failure to prevent forced labor materially affect legal compliance or project continuity?

Where impacts are significant or create legal, ethical, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.7) and SDG 16 (Target 16.2)
- GRI Alignment: GRI 409

3.3.4 Talent Acquisition, Retention, and Empowerment

This element addresses the policies, procedures, and practices used to attract, develop, and retain qualified personnel while ensuring that individuals have fair access to opportunity and the ability to contribute effectively to project objectives. It evaluates whether workforce practices strengthen capability, stability, and long-term performance.

Effective talent management supports organizational resilience by aligning roles with skills, providing access to advancement based on merit, and enabling broad participation in project decision-making.

The project team should:

- Base hiring, promotion, and compensation decisions on documented competencies and performance.
- Ensure access to advancement opportunities based on merit and demonstrated capability.
- Encourage participation in decision-making from individuals with relevant expertise.
- Provide structured mentoring and leadership development pathways.
- Support ongoing professional development aligned with project and organizational needs.
- Monitor workforce stability and retention trends for potential barriers to participation.

Effective talent acquisition, retention, and empowerment contribute to:

- Improved workforce capability and performance continuity
- Enhanced decision quality through broader technical and experiential input
- Reduced turnover and recruitment costs
- Stronger organizational resilience and adaptability

Impact Evaluation Considerations

1. Are recruitment and advancement decisions based on defined role requirements?
2. Do workforce practices create barriers to participation or advancement?
3. Is retention impacted by limited development opportunities?
4. Does leadership representation reflect the available talent pool?
5. Could talent instability materially affect project performance or governance?

Where impacts are significant or create operational, compliance, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.5) and SDG 10 (Target 10.3)
- GRI Alignment: GRI 401 and GRI 404

3.4 Ethical Behavior

This category addresses the integrity of project decision-making and conduct. It evaluates whether project governance, procurement, contracting, and operational practices align with recognized standards of ethical conduct, transparency, and accountability.

Ethical considerations apply to project planning, supplier relationships, financial management, technology deployment, and communications. Failure to maintain ethical standards may result in legal exposure, regulatory penalties, reputational damage, loss of stakeholder trust, or project suspension.

This category includes:

- Sustainable procurement practices and contracts
- Anti-corruption
- Fair competition
- Responsible technology
- Green claims and greenwashing

Application Guidance

Impacts under this category may arise from project processes, contractual relationships, financial controls, and external communications. The project team should evaluate ethical risks based on severity, likelihood, legal exposure, and stakeholder impact.

This category is likely material where procurement decisions, financial transactions, technology use, or public claims create risk of misconduct, misrepresentation, or regulatory noncompliance. Materiality should be reassessed throughout the project life cycle, particularly where commercial or technological conditions change.

Where impacts are within project influence, the team should identify appropriate prevention, monitoring, and corrective controls. Identified risks and mitigation actions may contribute to enterprise governance disclosures and compliance reporting.

3.4.1 Sustainable Procurement Practices and Contracts

This element addresses the environmental, social, and economic impacts associated with goods and services procured for the project. It evaluates whether purchasing decisions and contractual terms incorporate sustainability considerations and whether supplier practices align with recognized standards.

Sustainable procurement includes due diligence in supplier selection, contract conditions that address environmental and social performance, and oversight of supplier compliance. Even where procurement authority resides outside the project team, project managers are responsible for identifying sustainability risks associated with purchased goods and services and escalating concerns through appropriate governance channels.

The project team should:

- Identify sustainability risks associated with procured goods and services.
- Incorporate environmental, social, and human rights considerations into procurement specifications where within project influence.
- Request evidence of supplier compliance with relevant standards.
- Include sustainability performance expectations in contracts. where feasible.
- Escalate procurement decisions that create material sustainability risk.
- Monitor supplier performance for alignment with contractual sustainability commitments.

Effective sustainable procurement contributes to:

- Reduced exposure to environmental, social, and human rights risk within the value chain
- Improved life cycle performance of project outputs
- Lower likelihood of supply chain disruption
- Stronger alignment with organizational sustainability commitments

Impact Evaluation Considerations

1. Do procured goods or services create significant environmental or social impact?
2. Are supplier sustainability practices evaluated or verified?
3. Do contract terms address environmental, labor, or human rights standards?
4. Has the project team identified and escalated procurement decisions that create sustainability risk?
5. Could supplier noncompliance materially affect project performance or reputation?

Where impacts are significant or create environmental, social, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Target 12.7) and SDG 8 (Target 8.8)
- GRI Alignment: GRI 204 and GRI 308

3.4.2 Anti-Corruption

This element addresses the prevention of bribery, corruption, fraud, extortion, money laundering, and other forms of financial misconduct within project activities and associated value chain relationships. It evaluates whether project governance, procurement, financial controls, and oversight mechanisms effectively prevent improper influence or unlawful financial activity.

Corruption may arise through gifts, facilitation payments, conflicts of interest, collusion, falsified records, or concealment of funds. Failure to prevent corruption may result in criminal liability, contract termination, regulatory penalties, project suspension, or long-term reputational harm.

The project team should:

- Establish and enforce anti-corruption policies consistent with applicable laws and recognized standards.
- Conduct due diligence on suppliers, contractors, and intermediaries.
- Implement controls to prevent bribery, fraud, and financial misrepresentation.
- Train personnel on recognizing and reporting corruption risks.
- Maintain confidential and accessible reporting mechanisms.
- Monitor financial transactions and contractual activities for irregularities.
- Escalate suspected misconduct through defined governance channels.
- Cooperate with lawful oversight or audit processes, where required.

Effective anti-corruption practices contribute to:

- Reduced legal and criminal exposure
- Improved financial transparency and accountability
- Lower risk of project disruption due to investigation or enforcement
- Strengthened integrity of project governance and stakeholder confidence

Impact Evaluation Considerations

1. Are anti-corruption controls documented and actively enforced?
2. Have suppliers and intermediaries been screened for corruption risk?
3. Are financial transactions traceable and subject to oversight?
4. Have allegations or suspicious activities been investigated appropriately?
5. Could corruption risk materially affect regulatory compliance, funding, or project continuation?

Where impacts are significant or create legal, financial, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 16 (Targets 16.5 and 16.6)
- GRI Alignment: GRI 205
- TCFD Alignment: Governance; Risk Management (where corruption risk affects financial stability)

3.4.3 Fair Competition

This element addresses the prevention of anticompetitive conduct within project procurement and contracting activities. It evaluates whether project processes comply with competition laws and avoid collusion, bid-rigging, price-fixing, or preferential treatment.

Anticompetitive behavior may distort procurement outcomes, undermine market integrity, and expose the project and sponsoring organization to legal and financial penalties.

The project team should:

- Ensure compliance with applicable competition and antitrust laws.
- Prohibit participation in collusive practices such as bid-rigging or price-fixing.
- Establish transparent and documented bidding and evaluation procedures.
- Define selection criteria prior to solicitation and apply them consistently.
- Provide equal access to relevant information for all qualified bidders.
- Escalate suspected collusive or anticompetitive conduct through governance channels.

Effective fair competition practices contribute to:

- Reduced legal and regulatory exposure
- Improved integrity and defensibility of procurement decisions
- Greater transparency in supplier selection
- Lower risk of contract disputes or invalidated awards

Impact Evaluation Considerations

1. Are procurement procedures transparent and documented?
2. Are selection criteria established prior to solicitation and applied consistently?
3. Have any indications of collusion or preferential treatment been identified?
4. Do procurement practices comply with applicable competition laws?
5. Could anticompetitive conduct materially affect legal exposure or project validity?

Where impacts are significant or create legal, financial, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 16 (Target 16.5) and SDG 8 (Target 8.3)
- GRI Alignment: GRI 205 and GRI 206
- TCFD Alignment: Governance (where procurement conduct affects financial integrity)
- ISSB Alignment: Governance and market conduct disclosures, where material

3.4.4 Responsible Technology

This element addresses the ethical, lawful, and accountable use of technology within project activities and resulting products or services. It evaluates whether digital systems, artificial intelligence, data analytics, and other technologies are deployed in a manner that protects individual rights, manages bias, safeguards data, and minimizes environmental impact.

Responsible technology includes governance controls for emerging technologies, oversight of automated decision systems, management of algorithmic bias, protection of intellectual property, and assessment of environmental impacts associated with digital infrastructure. Failure to manage these risks may result in legal exposure, discriminatory outcomes, operational disruption, or loss of stakeholder trust.

The project team should:

- Identify ethical, legal, and operational risks associated with deployed technologies.
- Establish governance mechanisms for oversight of AI and automated decision systems.
- Assess and mitigate risks of algorithmic bias or unintended discriminatory outcomes.
- Ensure data used in technology systems is lawful, appropriate, and fit for purpose.
- Implement controls to manage cybersecurity and system integrity risks.
- Evaluate environmental impacts associated with technology infrastructure, where material.

Effective responsible technology practices contribute to:

- Reduced legal and regulatory exposure related to digital systems.
- Lower risk of discriminatory or harmful automated outcomes.
- Improved transparency and accountability in technology use.
- Greater resilience and trust in technology-enabled project outcomes.

Impact Evaluation Considerations

1. Does the project deploy AI, automated decision systems, or advanced analytics?
2. Have risks of bias, misuse, or unintended harm been assessed?
3. Are governance controls in place for oversight and accountability?
4. Could technology deployment materially affect individual rights or regulatory compliance?
5. Are environmental impacts of digital infrastructure considered, where significant?

Where impacts are significant or create legal, ethical, operational, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 9 (Target 9.4) and SDG 16 (Target 16.6)
- GRI Alignment: GRI 2-23 and GRI 418
- TCFD Alignment: Governance; Risk Management (where digital infrastructure influences climate risk exposure)

3.4.5 Green Claims and Greenwashing

This element addresses the accuracy, completeness, and substantiation of environmental claims associated with the project and its outputs. It evaluates whether sustainability-related statements are supported by verifiable evidence and whether material environmental impacts are transparently disclosed.

Green claims include statements that a project, product, or service is environmentally responsible, sustainable, low-carbon, or net-zero. Greenwashing occurs when such claims are false, misleading, exaggerated, or omit material information that would alter stakeholder understanding of the project's actual environmental impact.

Misrepresentation may involve selective disclosure of benefits while failing to disclose significant adverse effects such as habitat destruction, biodiversity loss, deforestation, or resource depletion. Inaccurate claims may result in regulatory enforcement, litigation, loss of credibility, or long-term reputational harm.

The project team should:

- Ensure all environmental claims are supported by documented evidence.
- Disclose material environmental impacts alongside claimed benefits.
- Avoid unqualified or ambiguous terminology such as "green," "eco-friendly," or "sustainable" without substantiation.
- Verify environmental claims made by suppliers and contractors.
- Align public statements with documented performance data and life cycle analysis, where applicable.

Effective prevention of greenwashing contributes to:

- Improved transparency and accountability
- Reduced regulatory and legal exposure related to misleading claims
- Stronger integrity of sustainability reporting
- Greater trust in verified environmental performance

Impact Evaluation Considerations

1. Are environmental claims supported by verifiable data?
2. Are significant adverse environmental impacts disclosed alongside benefits?
3. Does marketing or public communication omit material life cycle impacts?
4. Are supplier sustainability claims independently verified?
5. Could misleading claims materially affect regulatory compliance, financing, or public trust?

Where impacts are significant or create legal, regulatory, or reputational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Target 12.6) and SDG 15 (Target 15.5)
- GRI Alignment: GRI 417 and GRI 2-22

4 Planet Impacts

The Planet category addresses the environmental impacts arising from project activities, outputs, and servicing. It evaluates how project decisions affect natural systems, including land, air, water, biodiversity, and ecological resilience.

Projects may degrade, stabilize, restore, or enhance natural systems. The objective of this category is not limited to reducing environmental harm, but to prevent irreversible damage and, where feasible, contribute to measurable restoration or enhancement of ecological function. Impacts should be assessed relative to baseline conditions and evaluated for cumulative and long-term effects.

The Planet category (Figure 4-1) includes the following subcategories:

- Transport
- Energy
- Land, air, and water
- Consumption

Although presented as environmental impact areas, these subcategories may also generate social and economic consequences that should be evaluated within the People and Prosperity domains, where relevant.

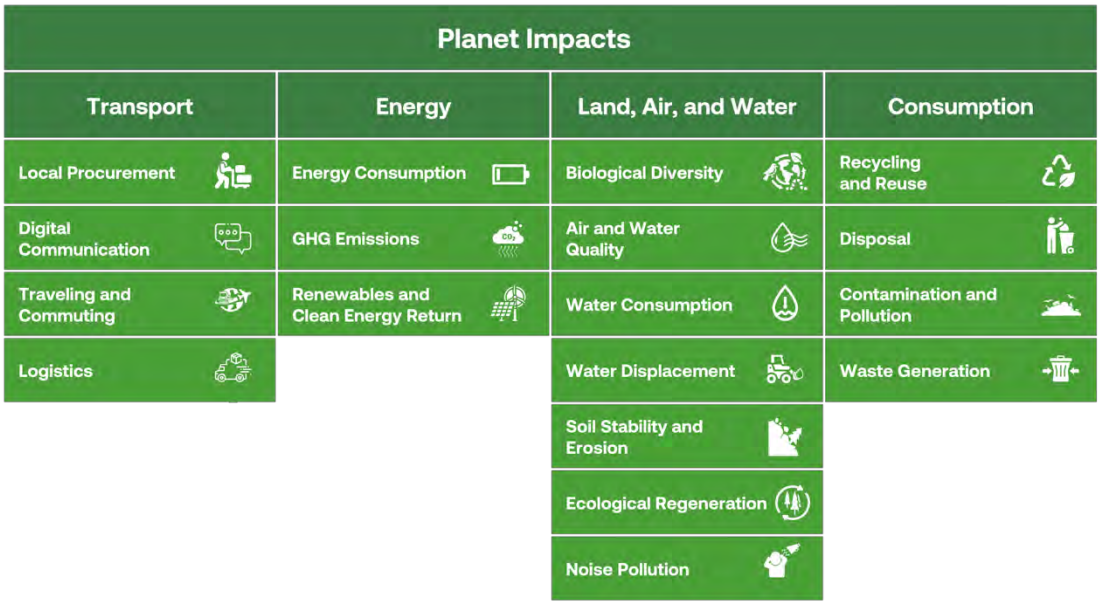

Figure 4-1 Planet Impacts

4.1 Transport

The Transport category addresses the environmental impacts associated with the movement of people, materials, equipment, and information across the full project life cycle, including planning, execution, operation, servicing, and end-of-life activities. It evaluates how transport-related decisions affect emissions, land disturbance, congestion, energy intensity, and cumulative infrastructure impact.

Transport activities may contribute to greenhouse gas emissions, air pollution, habitat fragmentation, and resource consumption. Impacts should be assessed relative to baseline transport conditions and evaluated for cumulative and long-term ecological effects. Where feasible, transport decisions should avoid unnecessary movement, reduce intensity, and transition toward lower-impact alternatives.

This category includes:

- Local procurement
- Digital communication
- Traveling and commuting
- Logistics

Application Guidance

Impacts under this category may arise from project processes, the characteristics of project outputs, or long-term servicing requirements. The project team should evaluate transport-related impacts based on distance, frequency, mode, fuel source, and associated emissions or land impacts.

This category is likely material where transport activities generate significant emissions, contribute to ecological disturbance, or create long-term infrastructure dependence. Materiality should be reassessed throughout the project life cycle.

Where impacts are within project influence, the team should identify avoidance, reduction, optimization, or lower-impact transport strategies that measurably reduce environmental burden.

4.1.1 Local Procurement

This element addresses the environmental and logistical impacts associated with sourcing goods and services from geographically proximate suppliers. It evaluates whether procurement decisions reduce transport-related emissions, energy consumption, and infrastructure strain while supporting local supply chain resilience.

Local procurement may reduce transport distance and associated emissions; however, environmental benefits should be evaluated based on life cycle impact rather than proximity alone.

The project team should:

- Assess the environmental impact of supplier location, including transport distance and mode.
- Evaluate life cycle environmental performance rather than assuming local sourcing is inherently lower impact.
- Prioritize qualified local suppliers where environmental and operational benefits are demonstrated.
- Align local sourcing decisions with sustainable procurement practices.
- Consider supply chain resilience and reduced logistics intensity in procurement planning.

Effective local procurement contributes to:

- Reduced transport-related emissions and energy use
- Improved supply chain resilience
- Lower logistics complexity and delivery risk
- Strengthened local economic participation where environmentally justified

Impact Evaluation Considerations

1. Does supplier proximity materially reduce transport distance and emissions?
2. Are life cycle environmental impacts lower compared to distant alternatives?
3. Could local sourcing reduce logistics risk or infrastructure strain?
4. Are environmental trade-offs documented and evaluated?
5. Could procurement location materially affect cumulative transport impacts?

Where impacts are significant or create environmental or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Target 12.7) and SDG 11 (Target 11.3)
- GRI Alignment: GRI 204 and GRI 308
- TCFD Alignment: Metrics and Targets (where transport emissions are material)
- ISSB Alignment: Supply chain and scope 3 emissions disclosures, where material

4.1.2 Digital Communication

This element addresses the environmental and operational impacts associated with replacing physical movement of people and materials with digital communication technologies. It evaluates whether digital tools reduce transport-related emissions while managing the energy, data, and governance implications of digital infrastructure and automated systems.

Digital communication includes virtual meetings, digital documentation, collaboration platforms, and automated communication systems. While these tools may reduce travel-related emissions, they also create energy demand, data storage requirements, and potential governance risks associated with artificial intelligence and automated agents.

The project team should:

- Evaluate opportunities to substitute physical travel with digital alternatives, where feasible.
- Assess the energy and infrastructure impacts of digital communication platforms.
- Use secure and efficient digital systems to minimize data waste and redundancy.
- Establish governance controls for responsible use of AI-driven communication tools and automated agents.
- Ensure digital communication practices comply with applicable data protection and cybersecurity standards.

Effective digital communication contributes to:

- Reduced transport-related emissions and travel intensity
- Lower operational disruption from physical mobility constraints
- Improved flexibility and workforce participation
- More efficient information exchange with reduced resource consumption

Impact Evaluation Considerations

1. Does digital substitution materially reduce travel distance or frequency?
2. Are energy and data center impacts of digital tools evaluated?
3. Are AI-driven communication tools governed to prevent misuse or misinformation?
4. Could digital communication practices create cybersecurity or data risk?
5. Are digital tools used efficiently to avoid unnecessary energy consumption?

Where impacts are significant or create environmental, operational, or governance exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 9 (Target 9.4) and SDG 13 (Target 13.2)
- GRI Alignment: GRI 305 and GRI 302
- TCFD Alignment: Metrics and Targets (where digital substitution affects emissions)
- ISSB Alignment: Climate-related and digital governance disclosures, where material

4.1.3 Traveling and Commuting

This element addresses the environmental impacts associated with project-related travel and commuting throughout the project life cycle. It evaluates whether movement of personnel contributes materially to greenhouse gas emissions, energy consumption, congestion, or land use intensity.

Traveling and commuting may include transport to project sites, off-site meetings, stakeholder engagement activities, and ongoing operational support. These activities can generate cumulative environmental impacts if not managed systematically.

The project team should:

- Assess the necessity and frequency of travel-related activities.
- Prioritize lower-emission transport modes, where feasible.
- Encourage remote participation when operationally appropriate.
- Optimize scheduling to reduce redundant or avoidable travel.
- Monitor travel-related emissions and associated resource use.

Effective management of traveling and commuting contributes to:

- Reduced transport-related emissions and fuel consumption
- Lower cumulative congestion and infrastructure strain
- Improved operational efficiency through reduced unnecessary movement
- Reduced environmental footprint of project personnel mobility

Impact Evaluation Considerations

1. Is travel frequency higher than operationally necessary?
2. Are lower-emission transport modes considered and documented?
3. Are remote alternatives evaluated before travel is authorized?
4. Could travel-related emissions materially affect project carbon performance?
5. Are cumulative mobility impacts assessed across the project life cycle?

Where impacts are significant or create environmental or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 13 (Target 13.2) and SDG 11 (Target 11.6)
- GRI Alignment: GRI 305
- TCFD Alignment: Metrics and Targets (where travel emissions are material)
- ISSB Alignment: Scope 1 and Scope 3 emissions disclosures, where material

4.1.4 Logistics

This element addresses the environmental impacts associated with the transportation, storage, and distribution of goods, materials, and equipment required by the project throughout its life cycle. It evaluates whether logistics planning minimizes emissions, energy use, waste, and unnecessary transport intensity.

Logistics activities may include freight selection, routing, scheduling, packaging, storage, and return flows. While direct control of logistics may reside with procurement or suppliers, project teams are responsible for identifying logistics-related sustainability risks and escalating concerns through appropriate governance channels.

The project team should:

- Assess the environmental impact of freight modes and routing decisions.
- Evaluate shipment frequency and consolidation opportunities to reduce transport intensity.
- Include logistics-related emissions in project carbon accounting, where material.
- Encourage lower-emission freight options, where operationally feasible.
- Assess packaging practices for waste reduction and reuse potential.
- Escalate logistics decisions that create material environmental impact or risk.

Effective logistics management contributes to:

- Reduced transport-related emissions and energy consumption
- Lower material waste associated with packaging and distribution
- Improved supply chain resilience and reliability
- Reduced cumulative environmental burden across the project life cycle

Impact Evaluation Considerations

1. Are logistics-related emissions measured and included in project assessments?
2. Do freight modes significantly affect carbon performance?
3. Are shipment patterns optimized to avoid unnecessary transport intensity?
4. Does packaging create avoidable waste?
5. Could logistics decisions materially affect project environmental performance or compliance?

Where impacts are significant or create environmental or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 13 (Target 13.2) and SDG 12 (Target 12.5)
- GRI Alignment: GRI 305 and GRI 306
- TCFD Alignment: Metrics and Targets (where logistics emissions are material)
- ISSB Alignment: Scope 3 emissions and supply chain disclosures, where material

4.2 Energy

The Energy category addresses the environmental impacts associated with energy use throughout the project life cycle, including planning, execution, operation, servicing, and end-of-life activities. It evaluates how project decisions affect total energy consumption, energy intensity, greenhouse gas emissions, and long-term climate exposure.

Energy-related impacts may arise from construction activities, operational demand, equipment selection, and ongoing servicing requirements. Projects should assess energy use relative to baseline conditions and evaluate opportunities to reduce intensity, transition to lower-emission sources, and avoid long-term carbon lock-in.

This category includes:

- Energy consumption
- Greenhouse gas emissions
- Renewables and clean energy return

Application Guidance

Impacts under this category may arise from project processes, the characteristics of project outputs, or long-term operational energy demand. The project team should evaluate energy-related impacts based on total consumption, emissions intensity, source mix, and life cycle performance.

This category is likely material where energy use significantly affects greenhouse gas emissions, regulatory exposure, or long-term climate risk. Materiality should be reassessed throughout the project life cycle, particularly where operational demand extends beyond initial delivery.

Where impacts are within project influence, the team should identify avoidance, reduction, transition, or enhancement strategies that measurably improve energy performance.

4.2.1 Energy Consumption

This element addresses the total energy demand associated with project activities, outputs, and servicing throughout the project life cycle. It evaluates whether project decisions reduce energy intensity relative to baseline conditions and avoid long-term dependency on high-emission energy sources.

Energy consumption includes operational energy demand, embedded energy in materials, and energy required for maintenance, distribution, and end-of-life activities. Projects should assess both absolute energy use and energy intensity per functional output.

The project team should:

- Establish baseline energy demand assumptions for project activities and outputs.
- Evaluate life cycle energy intensity across design, construction, operation, and disposal.
- Prioritize design strategies that reduce total and per-unit energy demand.
- Assess opportunities to transition toward lower-emission or renewable energy sources.
- Avoid decisions that create long-term energy lock-in or stranded energy assets.
- Integrate energy performance targets into project governance, where material.

Effective management of energy consumption contributes to:

- Reduced life cycle energy intensity
- Lower greenhouse gas exposure over time
- Improved resilience to energy cost volatility
- Enhanced alignment with organizational climate commitments

Impact Evaluation Considerations

1. Is total life cycle energy demand quantified and documented?
2. Does the project reduce energy intensity relative to comparable baseline conditions?
3. Are high-emission energy dependencies embedded in long-term design decisions?
4. Could operational energy demand materially affect climate or regulatory exposure?
5. Are energy performance targets measurable and monitored?

Where impacts are significant or create climate, financial, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 7 (Target 7.3) and SDG 13 (Target 13.2)
- GRI Alignment: GRI 302 and GRI 305
- TCFD Alignment: Metrics and Targets; Risk Management
- ISSB Alignment: Climate-related energy and emissions disclosures, where material

4.2.2 Greenhouse Gas Emissions

This element addresses greenhouse gas emissions associated with project activities, outputs, and servicing throughout the project life cycle. It evaluates whether project decisions reduce emissions intensity relative to baseline conditions and align with climate-related commitments or regulatory thresholds.

Greenhouse gas emissions may arise from direct fuel use, purchased energy, transportation, supply chain activities, product operation, and end-of-life processes. Emissions should be assessed across the full life cycle, including both direct and indirect sources, where material.

The project team should:

- Quantify and document project-related greenhouse gas emissions, where material.
- Assess life cycle emissions associated with the project output.
- Integrate emissions performance into design and procurement decisions.
- Establish measurable emissions reduction targets, where applicable.
- Prioritize direct emissions reduction over reliance on offsets.
- Monitor progress against defined emissions performance objectives.

Effective management of greenhouse gas emissions contributes to:

- Reduced life cycle carbon intensity
- Lower exposure to climate-related regulatory or financial risk
- Improved alignment with organizational decarbonization commitments
- Enhanced resilience in carbon-constrained operating environments

Impact Evaluation Considerations

1. Are direct and indirect emissions sources identified and quantified?
2. Does the project reduce emissions intensity relative to comparable baseline conditions?
3. Are emissions embedded in long-term design decisions or operational models?
4. Is reliance on offsets documented and limited to residual emissions?
5. Could emissions performance materially affect regulatory exposure, financing, or stakeholder trust?

Where impacts are significant or create climate, financial, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 13 (Target 13.2) and SDG 7 (Target 7.2)
- GRI Alignment: GRI 305
- TCFD Alignment: Strategy; Metrics and Targets; Risk Management
- ISSB Alignment: IFRS S2 climate-related disclosures, where material

4.2.3 Renewables and Clean Energy Return

This element addresses the transition from nonrenewable energy sources to renewable energy generation within project activities and outputs. It evaluates whether project decisions increase the proportion of renewable energy used and, where feasible, generate renewable energy in excess of project demand.

Renewables and Clean Energy Return (CER) consider both the substitution of fossil-based energy and the net energy balance associated with the project. Clean energy return refers to renewable energy generated by the project or its outputs that exceeds operational demand and is exported or made available beyond the project boundary.

The project team should:

- Assess opportunities to replace nonrenewable energy with renewable sources.
- Integrate on-site or project-enabled renewable generation, where feasible.
- Evaluate the net energy balance across the life cycle of the project outcome.
- Establish measurable renewable energy performance targets, where material.
- Ensure that claims of clean energy return are supported by documented energy accounting.

Effective use of renewables and clean energy return contributes to:

- Reduced reliance on fossil-based energy
- Improved life cycle carbon performance
- Enhanced energy resilience and security
- Potential net-positive contribution to local energy systems, where demonstrable

Impact Evaluation Considerations

1. Does the project materially increase renewable energy use relative to baseline conditions?
2. Is renewable generation quantified and verified?
3. Does the project create a net-positive energy balance, where claimed?
4. Are renewable energy claims supported by documented measurement?
5. Could energy sourcing decisions materially affect climate exposure or regulatory risk?

Where impacts are significant or create climate, financial, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 7 (Target 7.2) and SDG 13 (Target 13.2)
- GRI Alignment: GRI 302 and GRI 305
- TCFD Alignment: Strategy; Metrics and Targets
- ISSB Alignment: IFRS S2 climate-related disclosures, where material

4.3 Land, Air, and Water

The Land, Air, and Water category addresses the impacts of project activities, outputs, and servicing on terrestrial, atmospheric, and aquatic systems. It evaluates how project decisions affect ecosystem integrity, biodiversity, water systems, soil stability, and local environmental quality.

Projects may alter land use, degrade habitat, affect air or water quality, disrupt hydrological systems, or contribute to soil instability. Impacts should be assessed relative to baseline environmental conditions and evaluated for cumulative, long-term, and potentially irreversible effects.

Where degradation cannot be avoided, mitigation must be measurable. Where feasible, projects should consider restoration or enhancement of ecological function in areas affected by project activities.

This category includes:

- Biological diversity
- Air and water quality
- Water consumption
- Water displacement
- Soil stability and erosion
- Ecological regeneration
- Noise pollution

Application Guidance

Impacts under this category may arise from site selection, construction activities, operational processes, and end-of-life considerations. The project team should evaluate environmental impacts based on magnitude, duration, reversibility, and proximity to ecological thresholds.

This category is likely material where project activities affect protected areas, sensitive ecosystems, water availability, soil stability, or local environmental health. Materiality should be reassessed throughout the project life cycle, particularly where cumulative or long-term impacts are anticipated.

Where impacts are within project influence, the team should identify avoidance, mitigation, restoration, or enhancement strategies that measurably improve environmental performance relative to baseline conditions.

4.3.1 Biological Diversity

This element addresses the protection, restoration, and enhancement of biodiversity affected by project activities, outcomes, and servicing. It evaluates whether project decisions avoid irreversible ecological harm and, where feasible, contribute to measurable improvement in ecosystem integrity relative to baseline conditions.

Biodiversity impacts may include habitat loss, fragmentation, species disturbance, ecosystem degradation, or disruption of ecological processes. Projects should assess impacts in relation to sensitive habitats, protected areas, endemic species, and cumulative regional pressures.

Net-positive impact (NPI) requires that measurable biodiversity gains exceed unavoidable losses over an appropriate timeframe and geographic scale.

The project team should:

- Identify ecosystems, species, and ecological services potentially affected by project activities.
- Assess impacts relative to documented baseline biodiversity conditions.
- Avoid or minimize habitat disturbance, where feasible.
- Implement measurable mitigation and restoration strategies for unavoidable impacts.
- Allocate resources for ecological restoration and long-term monitoring, where material.
- Incorporate biodiversity performance criteria into site selection, design, and operational planning.
- Engage qualified ecological expertise when impacts may be significant.

Effective biodiversity management contributes to:

- Reduced ecological degradation and habitat loss
- Measurable restoration of affected ecosystems, where feasible
- Improved long-term resilience of natural systems
- Alignment with regional or national biodiversity commitments

Impact Evaluation Considerations

1. Are baseline ecological conditions documented prior to project disturbance?
2. Are impacts on species, habitats, or ecosystem services quantified?
3. Are mitigation practices measurable and monitored over time?
4. Do restoration efforts demonstrably offset unavoidable loss?
5. Could biodiversity impacts materially affect regulatory approval or long-term ecological resilience?

Where impacts are significant or create ecological, regulatory, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 15 (Targets 15.5 and 15.3)
- GRI Alignment: GRI 304
- TCFD Alignment: Risk Management; Strategy (where nature-related risk affects resilience)
- ISSB Alignment: Nature-related risk disclosures, where material

4.3.2 Air and Water Quality

This element addresses the protection of air and water systems from contamination arising from project activities and outcomes. It evaluates whether project decisions prevent degradation of ambient air quality, surface water, groundwater, and associated ecological systems.

Air and water quality impacts may include particulate emissions, toxic releases, effluent discharge, chemical runoff, sedimentation, and nutrient loading. Impacts should be assessed relative to baseline environmental conditions and applicable regulatory thresholds.

The project team should:

- Identify applicable air and water quality standards and regulatory limits.
- Quantify emissions and effluent discharge, where material.
- Implement control measures to prevent pollutant release or contamination.
- Monitor air and water quality impacts during construction and operation, where relevant.
- Develop remediation or corrective strategies, where degradation occurs.
- Incorporate pollution prevention measures into site design and operational planning.

Effective management of air and water quality contributes to:

- Prevention of contamination and ecosystem degradation
- Reduced regulatory and enforcement exposure
- Protection of public health and ecological integrity
- Improved long-term environmental resilience in affected areas

Impact Evaluation Considerations

1. Are baseline air and water quality conditions documented?
2. Are emissions and discharges measured and compared to regulatory thresholds?
3. Could project activities cause cumulative or irreversible contamination?
4. Are pollution control measures effective and monitored?
5. Could air or water quality impacts materially affect community health or regulatory approval?

Where impacts are significant or create environmental, regulatory, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

SDG Alignment: SDG 6 (Target 6.3) and SDG 3 (Target 3.9)
GRI Alignment: GRI 303 and GRI 305
TCFD Alignment: Risk Management (where environmental contamination affects physical risk)
ISSB Alignment: Environmental risk disclosures, where material

4.3.3 Water Consumption

This element addresses the quantity of water withdrawn and consumed by project activities and outcomes throughout the project life cycle. It evaluates whether project decisions align water use with local availability, watershed capacity, and long-term ecological resilience.

Water consumption includes direct withdrawal, process use, evaporation, and water embedded in materials and servicing requirements. Impacts should be assessed relative to baseline watershed conditions and regional water stress levels.

The project team should:

- Quantify total water withdrawal and net consumption, where material.
- Assess water use relative to local basin capacity and stress indicators.
- Implement measures to reduce water intensity through reuse, recycling, and efficiency.
- Incorporate water performance targets into project planning, where appropriate.
- Monitor cumulative water impacts during construction and operation.
- Evaluate opportunities to restore or enhance local water balance, where feasible.

Effective water consumption management contributes to:

- Reduced strain on local water resources
- Improved alignment with regional water availability
- Lower exposure to regulatory or supply disruption risk
- Enhanced long-term ecological resilience in affected watersheds

Impact Evaluation Considerations

1. Is water withdrawal measured and compared to local availability?
2. Is the project located in a water-stressed or drought-prone region?
3. Does cumulative extraction materially affect watershed stability?
4. Are reuse and recycling measures implemented and monitored?
5. Could water use materially affect community access or ecological health?

Where impacts are significant or create environmental, social, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 6 (Target 6.4) and SDG 15 (Target 15.1)
- GRI Alignment: GRI 303
- TCFD Alignment: Risk Management (where water stress affects physical risk exposure)
- ISSB Alignment: Environmental and climate-related resource risk disclosures, where material

4.3.4 Water Displacement

This element addresses the alteration of natural water flows resulting from project activities and outcomes. It evaluates whether project decisions modify surface or groundwater movement in ways that affect downstream ecosystems, flood risk, sediment transport, or water availability.

Water displacement may occur through diversion, channel modification, drainage alteration, impoundment, or large-scale land disturbance. Such changes can create cumulative or unintended impacts beyond the project boundary.

The project team should:

- Assess baseline hydrological conditions and flow patterns prior to modification.
- Evaluate downstream and cumulative impacts of altered water movement.
- Design water management strategies to avoid transferring flood or contamination risk to other areas.
- Monitor hydrological changes during and after implementation, where material.
- Implement corrective or restorative measures, where adverse impacts occur.
- Maintain transparency with affected stakeholders regarding water flow changes.

Effective management of water displacement contributes to:

- Reduced flood and erosion risk
- Protection of downstream ecosystems and water users
- Improved watershed stability and long-term hydrological resilience
- Lower regulatory and operational exposure related to water system disruption

Impact Evaluation Considerations

1. Are natural flow patterns or drainage systems altered by project activities?
2. Could water diversion increase flood or contamination risk elsewhere?
3. Are downstream ecological impacts assessed and documented?
4. Are sediment and runoff impacts controlled and monitored?
5. Could hydrological changes materially affect community safety or regulatory approval?

Where impacts are significant or create environmental, social, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 6 (Target 6.6) and SDG 15 (Target 15.1)
- GRI Alignment: GRI 303 and GRI 304
- TCFD Alignment: Risk Management (where altered hydrology affects physical risk exposure)
- ISSB Alignment: Environmental and climate-related risk disclosures, where material

4.3.5 Soil Stability and Erosion

This element addresses the prevention of soil degradation resulting from project activities and outcomes. It evaluates whether land disturbance leads to erosion, sedimentation, compaction, or long-term loss of productive soil.

Soil erosion may result from land clearing, grading, excavation, or infrastructure development. Impacts should be assessed relative to baseline soil conditions and downstream ecological effects.

The project team should:

- Identify sensitive soil conditions and erosion-prone areas prior to disturbance.
- Implement erosion and sediment control measures, where material.
- Minimize land clearing and surface disturbance.
- Monitor soil stability during and after project activities.
- Implement corrective actions, where degradation occurs.

Effective soil management contributes to:

- Reduced sedimentation and runoff impacts
- Improved watershed protection
- Lower long-term land degradation risk
- Improved regulatory compliance

Impact Evaluation Considerations

1. Are baseline soil conditions documented prior to disturbance?
2. Does project activity increase erosion or sediment transport?
3. Are mitigation practices measurable and monitored?
4. Could soil degradation materially affect ecological systems or regulatory approval?

Where impacts are significant, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 15 (Target 15.3)
- GRI Alignment: GRI 304
- TCFD Alignment: Risk Management (where land degradation affects physical risk)
- ISSB Alignment: Environmental risk disclosures, where material

4.3.6 Ecological Regeneration

This element addresses the measurable restoration or enhancement of ecological systems affected by project activities and outcomes. It evaluates whether the project contributes to improved ecosystem function, biodiversity integrity, soil health, hydrological stability, or habitat resilience relative to documented baseline conditions.

Regeneration is distinct from mitigation. Mitigation reduces harm. Regeneration requires demonstrable improvement beyond pre-project ecological conditions and must be supported by quantifiable indicators and ongoing monitoring. Regenerative claims should reflect system-level improvement rather than isolated site enhancements.

The project team should:

- Establish documented ecological baselines prior to disturbance.
- Identify opportunities for measurable improvement in ecosystem function.
- Integrate regenerative design principles into land use, site planning, and life cycle decisions.
- Avoid reliance on unverified offset mechanisms in place of local ecological restoration.
- Allocate resources for long-term monitoring and adaptive management.
- Align regenerative strategies with regional ecological priorities and conservation frameworks.

Effective ecological regeneration contributes to:

- Improved ecosystem integrity and biodiversity resilience
- Enhanced soil and watershed function
- Strengthened long-term ecological carrying capacity
- Alignment with regional and global biodiversity objectives

Impact Evaluation Considerations

1. Are baseline ecological conditions clearly documented?
2. Do proposed interventions result in measurable ecological improvement?
3. Are regenerative outcomes monitored over time with defined indicators?
4. Do claimed improvements exceed unavoidable project impacts?
5. Could regenerative strategies materially enhance long-term system resilience?

Where impacts are significant, regenerative strategies should be incorporated into the Sustainability Management Plan and evaluated against defined ecological performance criteria.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 15 (Targets 15.3 and 15.5) and SDG 6 (Target 6.6)
- GRI Alignment: GRI 304
- TCFD Alignment: Strategy; Risk Management (where nature-related risk affects long-term value)
- ISSB Alignment: Nature-related and environmental risk disclosures, where material

4.3.7 Noise Pollution

This element addresses the environmental and health impacts associated with project-generated noise throughout the project life cycle. It evaluates whether project activities exceed ambient noise baselines, disrupt human or ecological systems, or create cumulative exposure risks.

Noise pollution may arise from construction activities, transport operations, equipment use, and ongoing servicing. Impacts should be assessed relative to baseline sound levels, regulatory limits, duration, frequency, and sensitivity of affected populations or habitats.

The project team should:

- Establish baseline ambient noise conditions, where material.
- Identify regulatory thresholds and community tolerance levels.
- Schedule high-noise activities to minimize disruption, where feasible.
- Implement engineering controls such as barriers or quieter equipment, where appropriate.
- Monitor noise levels and document exceedances.
- Provide transparent communication and complaint mechanisms for affected stakeholders.
- Address confirmed exceedances through corrective measures.

Effective noise management contributes to:

- Reduced disruption to nearby communities and sensitive ecosystems
- Lower risk of regulatory noncompliance or enforcement action
- Protection of human health and ecological integrity
- Improved long-term environmental stability in affected areas

Impact Evaluation Considerations

1. Are baseline ambient noise levels documented?
2. Do project activities exceed regulatory or community thresholds?
3. Are exposure duration and frequency assessed?
4. Are mitigation practices measurable and monitored?
5. Could noise impacts materially affect community health or ecological systems?

Where impacts are significant or create environmental, health, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 11 (Target 11.6) and SDG 3 (Target 3.9)
- GRI Alignment: GRI 413 and GRI 3
- TCFD Alignment: Risk Management (where environmental disturbance affects physical risk exposure)
- ISSB Alignment: Environmental risk disclosures, where material

4.4 Consumption

The Consumption category addresses the material intensity associated with project activities and outcomes throughout the project life cycle. It evaluates how project decisions affect resource extraction, material throughput, waste generation, and long-term system sustainability.

Projects may contribute to resource depletion, material waste, contamination, or inefficient use of finite inputs. Impacts should be assessed relative to baseline material demand and evaluated for opportunities to reduce intensity, extend material life, and increase circularity.

This category includes:

- Recycling and reuse
- Disposal
- Contamination and pollution
- Waste generation

Application Guidance

Impacts under this category may arise from material selection, procurement practices, construction methods, operational supply chains, and end-of-life management. The project team should evaluate total material demand, waste streams, contamination risks, and circular recovery potential.

This category is likely material, where resource extraction, hazardous waste, or cumulative material throughput significantly affect ecological systems or regulatory exposure. Materiality should be reassessed throughout the project life cycle.

Where impacts are within project influence, the team should identify avoidance, reduction, reuse, recovery, or regenerative material strategies that measurably reduce resource intensity and environmental burden.

4.4.1 Recycling and Reuse

This element addresses the recovery, reuse, and circular reintegration of materials associated with project activities and outcomes. It evaluates whether project decisions reduce reliance on virgin material extraction and measurably increase material circularity relative to baseline practices.

Recycling involves reprocessing materials for subsequent use. Reuse involves extending the functional life of materials or repurposing them without reprocessing. Both should be assessed in the context of total material flow and life cycle environmental impact.

The project team should:

- Identify major material streams generated or consumed by the project.
- Assess opportunities to increase reuse or material recovery rates.
- Incorporate recycled or responsibly sourced materials, where performance requirements allow.
- Evaluate life cycle impacts of recycling processes to ensure net environmental benefit.
- Reduce unnecessary packaging and material redundancy.
- Track and document material recovery performance, where material.

Effective recycling and reuse contribute to:

- Reduced demand for virgin resource extraction
- Lower waste generation and landfill dependency
- Improved material efficiency across the project life cycle
- Reduced life cycle environmental burden associated with material production

Impact Evaluation Considerations

1. Are major material streams quantified and documented?
2. Does the project increase material recovery or reuse relative to baseline conditions?
3. Are recycling processes evaluated for net environmental benefit?
4. Could material waste materially affect ecological systems or regulatory exposure?
5. Are circularity claims supported by measurable data?

Where impacts are significant or create environmental or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Targets 12.5 and 12.2)
- GRI Alignment: GRI 306
- TCFD Alignment: Risk Management (where material waste affects transition risk)
- ISSB Alignment: Resource efficiency and waste disclosures, where material

4.4.2 Disposal

This element addresses the management of waste and end-of-life materials generated during project activities and through the life cycle of project outcomes. It evaluates whether project decisions prevent uncontrolled disposal, manage hazardous materials responsibly, and integrate end-of-life planning into design and governance processes.

Disposal includes the handling of surplus materials, construction waste, electronic waste (e-waste), operational by-products, and the retirement of assets or infrastructure at the end of useful life. Impacts should be assessed relative to regulatory requirements, environmental risk, and life cycle material recovery potential.

The project team should:

- Identify waste streams and hazardous materials generated during the project life cycle.
- Ensure disposal practices comply with applicable environmental regulations
- Incorporate end-of-life considerations into design and procurement decisions
- Evaluate opportunities for material recovery prior to disposal
- Track material flows leaving the project boundary, where material
- Include disposal costs and environmental impacts in life cycle planning

Effective disposal management contributes to:

- Reduced environmental harm from uncontrolled waste release
- Improved compliance with environmental and safety standards
- Lower long-term liability associated with hazardous materials
- Improved life cycle resource efficiency

Impact Evaluation Considerations

1. Are major waste streams quantified and classified?
2. Are hazardous materials handled and documented in accordance with regulation?
3. Are end-of-life impacts evaluated during design and business case development?
4. Could disposal practices materially affect environmental or regulatory exposure?
5. Are material recovery opportunities assessed prior to final disposal?

Where impacts are significant or create environmental, legal, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Targets 12.4 and 12.5)
- GRI Alignment: GRI 306
- TCFD Alignment: Risk Management (where waste exposure affects liability or transition risk)
- ISSB Alignment: Waste and environmental liability disclosures, where material

4.4.3 Contamination and Pollution

This element addresses the prevention and control of contamination resulting from the release of hazardous or harmful substances into air, water, or soil during project activities and throughout the life cycle of project outcomes. It evaluates whether project processes prevent uncontrolled discharge, leakage, or accumulation of pollutants that may cause ecological or human harm.

Contamination may arise from spills, improper storage, chemical handling, runoff, emissions, or legacy materials embedded in project sites. Impacts should be assessed relative to baseline environmental conditions, regulatory thresholds, and long-term remediation risk.

The project team should:

- Identify hazardous substances used or generated during the project life cycle.
- Implement containment and control measures to prevent uncontrolled release.
- Comply with applicable regulations governing storage, transport, and disposal of hazardous materials.
- Monitor for leaks, spills, or discharge events, where material.
- Develop incident response and remediation plans for contamination events.
- Document and report contamination risks through appropriate governance channels.

Effective contamination and pollution management contributes to:

- Reduced risk of ecological and human health harm
- Lower exposure to environmental liability and remediation costs
- Improved compliance with environmental regulations
- Protection of long-term land and water system integrity

Impact Evaluation Considerations

1. Are hazardous materials inventoried and risk-assessed?
2. Are containment and monitoring systems documented and maintained?
3. Have spill or contamination events occurred and been remediated appropriately?
4. Could pollutant release materially affect ecological systems or regulatory compliance?
5. Are long-term remediation liabilities evaluated during planning?

Where impacts are significant or create environmental, health, or regulatory exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Target 12.4) and SDG 3 (Target 3.9)
- GRI Alignment: GRI 306 and GRI 303
- TCFD Alignment: Risk Management (where contamination creates physical or liability risk)
- ISSB Alignment: Environmental liability and risk disclosures, where material

4.4.4 Waste Generation

This element addresses the quantity and types of waste generated throughout the project life cycle, including construction, operation, servicing, and end-of-life. It evaluates whether project decisions reduce waste at source and limit unnecessary material throughput relative to baseline practices.

Waste generation may include construction debris, operational by-products, hazardous waste, packaging waste, electronic waste, and digital waste, such as unnecessary data storage or redundant digital infrastructure. Impacts should be assessed in terms of volume, hazard classification, life cycle burden, and cumulative environmental effect.

The project team should:

- Quantify major waste streams generated across the project life cycle.
- Identify opportunities to reduce waste at source before considering recycling or disposal.
- Assess digital infrastructure and electronic equipment for avoidable life cycle waste.
- Minimize packaging and material redundancy in procurement and logistics decisions.
- Incorporate waste performance targets into project planning, where material.
- Monitor and document waste generation trends over time.

Effective waste generation management contributes to:

- Reduced material throughput and landfill dependency
- Lower environmental burden associated with material extraction and disposal
- Reduced exposure to hazardous waste liability
- Improved life cycle resource efficiency

Impact Evaluation Considerations

1. Are major waste streams identified and quantified?
2. Is waste intensity reduced relative to baseline conditions?
3. Are hazardous and electronic wastes tracked and managed appropriately?
4. Could digital infrastructure create avoidable life cycle waste or energy demand?
5. Could waste generation materially affect environmental or regulatory exposure?

Where impacts are significant or create environmental, legal, or operational exposure, they should be formally assessed within the P5 Impact Analysis and addressed through the Sustainability Management Plan.

Reporting and Disclosure Mappings and Linkages

- SDG Alignment: SDG 12 (Targets 12.5 and 12.4)
- GRI Alignment: GRI 306
- TCFD Alignment: Risk Management (where waste liabilities affect transition or physical risk)
- ISSB Alignment: Resource efficiency and waste disclosures, where material

5 Prosperity Impacts

The Prosperity category addresses the economic impacts arising from project activities and outcomes across the project life cycle. It evaluates how project decisions affect long-term financial viability, institutional resilience, economic capacity, and distribution of value among stakeholders.

Prosperity is not limited to short-term financial return. It includes the durability of value creation, the avoidance of stranded assets or structural dependency, and the strengthening of economic systems connected to the project. Projects may create, degrade, or enhance long-term economic capacity.

The Prosperity category (Figure 5-1) includes the following subcategories:

- Project Feasibility
- Adaptive Materiality
- Market and Economic stimulation

Application Guidance

Impacts under this category may arise from capital allocation, procurement structures, financial controls, supply chain relationships, and long-term operational dependencies. The project team should evaluate economic impacts based on durability, resilience, distribution of value, and exposure to financial or regulatory risk.

This category is likely material where project decisions affect long-term financial stability, stakeholder value distribution, or systemic economic resilience. Materiality should be reassessed throughout the project life cycle, particularly where economic conditions or regulatory environments change.

Where impacts are within project influence, the team should identify strategies that strengthen durable value creation, enhance resilience, and reduce structural vulnerability over time.

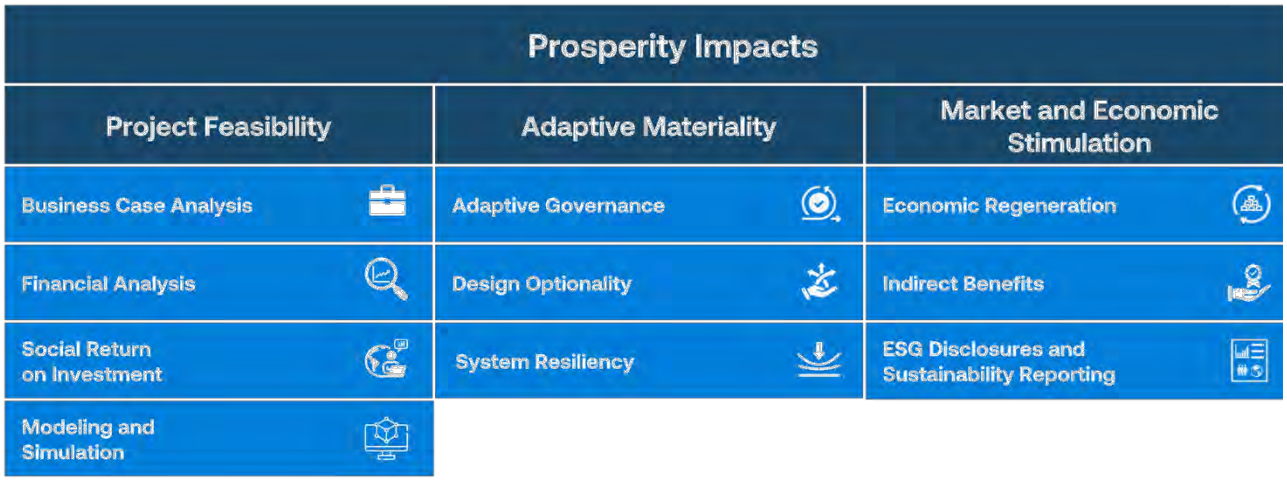

Figure 5-1 Prosperity Impacts

5.1 Project Feasibility

Project feasibility addresses whether a proposed project can deliver durable value without creating unacceptable environmental, social, or economic risk. A project that consumes resources without generating sustainable net benefits—when evaluated across financial, environmental, and social dimensions—cannot be considered viable in the long term.

Feasibility includes technical, operational, legal, and financial considerations. Technical feasibility evaluates whether the project can be delivered within defined performance constraints. Operational feasibility assesses whether required resources and capabilities are available without degrading institutional capacity. Legal feasibility ensures compliance with applicable regulations and governance requirements. Financial feasibility evaluates whether the project generates durable value relative to life cycle cost and risk exposure.

Feasibility should be evaluated not only at approval, but throughout the project life cycle. Changes in market conditions, regulatory requirements, environmental thresholds, or stakeholder expectations may alter long-term viability.

This category addresses how benefits, costs, risks, and long-term value are identified and evaluated. It includes:

- Business case analysis
- Financial analysis
- Social return on investment (SROI)
- Modeling and simulation

Application Guidance

Impacts under this category may arise from capital allocation decisions, financial structuring, life cycle cost assumptions, and risk exposure modeling. The project team should evaluate not only direct financial return, but also potential environmental liabilities, regulatory risk, and long-term resilience.

This category is likely material where capital investment is significant, long-term infrastructure is involved, or where environmental or social risks may alter financial performance. Materiality should be reassessed as conditions change.

Where feasible, projects should evaluate whether value creation strengthens long-term institutional and economic resilience rather than creating stranded assets or structural dependency.

5.1.1 Business Case Analysis

This element addresses the development and evaluation of a business case that justifies the initiation or continuation of a project. It evaluates whether the proposed project delivers durable value when assessed across financial, environmental, and social dimensions.

Business case analysis requires examination of expected outcomes, benefits, dis-benefits, life cycle costs, revenue assumptions, risk exposure, resource requirements, and stakeholder impacts. It should incorporate environmental and social impact assessment alongside financial evaluation to ensure that projected value is not offset by long-term liabilities or threshold exceedance.

The project team should:

- Clearly articulate the intended outcomes and value proposition of the project.
- Identify and assess alternative solutions capable of delivering desired outcomes.
- Evaluate financial costs, revenues, and life cycle liabilities associated with each option.
- Assess environmental and social impacts, including threshold exposure and regulatory risk.
- Incorporate mitigation, restoration, or regenerative opportunities, where feasible.
- Identify resource and capability requirements to deliver intended outcomes.
- Select options based on durability of value and resilience over time.
- Monitor project performance against business case assumptions and escalate, where material variance occurs.
- Inform sponsoring governance bodies promptly if assumptions underlying feasibility are no longer valid.

Effective business case analysis contributes to:

- Improved project selection based on durable and resilient value creation
- Reduced risk of stranded assets or unintended long-term liabilities
- More transparent decision-making grounded in evidence and measurable assumptions
- Enhanced alignment between project outcomes and organizational commitments

Impact Evaluation Considerations

1. Are environmental and social impacts integrated into financial evaluation?
2. Are life cycle costs and long-term liabilities assessed?
3. Are threshold exceedance risks identified and documented?
4. Do proposed outcomes enhance or degrade system capacity over time?
5. Could changes in regulatory, environmental, or market conditions invalidate the business case?

Where impacts materially affect project viability or long-term value, they should be reassessed within the P5 Impact Analysis and reflected in updated governance decisions.

Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.3) and SDG 12 (Target 12.6)
- GRI Alignment: GRI 3 and GRI 2-22
- TCFD Alignment: Strategy; Risk Management
- ISSB Alignment: IFRS S1 and S2 sustainability-related financial disclosures, where material

5.1.2 Financial Analysis

This element addresses the monetary evaluation of project viability across its life cycle. It evaluates whether projected financial performance remains robust when accounting for risk exposure, environmental liabilities, regulatory change, and long-term value durability.

Financial analysis includes the assessment of capital requirements, operating costs, projected revenues, discount rates, inflation, exchange exposure, and risk-adjusted returns. It should reflect not only expected financial benefits, but also potential environmental, social, and compliance-related liabilities that may affect long-term performance.

The project team should:

- Ensure that financial projections are aligned with documented life cycle assumptions.
- Evaluate benefits and costs over comparable time horizons.
- Incorporate risk scenarios related to regulation, resource constraints, or market transition.
- Discount future cash flows using transparent and justified assumptions.
- Use multiple financial metrics (e.g., return on investment [ROI], internal rate of return [IRR], benefit-cost ratio) to evaluate performance.
- Assess whether projected returns remain viable under conservative or stress-tested conditions.
- Escalate concerns if financial assumptions become materially invalid.

Effective financial analysis contributes to:

- Improved long-term financial resilience
- Reduced exposure to stranded assets or regulatory risk
- More transparent and defensible funding decisions
- Better alignment between financial performance and sustainability commitments

Impact Evaluation Considerations

1. Are financial projections supported by documented assumptions and life cycle analysis?
2. Are environmental or regulatory liabilities reflected in cost modeling?
3. Do scenario analyses account for market or policy shifts?
4. Could short-term gains mask long-term financial vulnerability?
5. Does the project strengthen or weaken institutional financial capacity over time?

Where financial assumptions materially affect long-term viability, they should be reassessed within the P5 Impact Analysis and reflected in updated governance decisions.

Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.3) and SDG 9 (Target 9.2)
- GRI Alignment: GRI 3 and GRI 201
- TCFD Alignment: Strategy; Risk Management; Metrics and Targets
- ISSB Alignment: IFRS S1 and S2 sustainability-related financial disclosures, where material

5.1.3 Social Return on Investment

This element addresses the evaluation of social and environmental value alongside financial performance when assessing project feasibility. It evaluates whether the project generates measurable social or environmental benefits that justify the resources invested.

Social return on investment (SROI) extends traditional financial analysis by incorporating nonfinancial benefits and costs into value assessment. It recognizes that projects may create or degrade social and environmental capacity in ways that affect long-term system resilience.

At its simplest, SROI compares total quantified benefits (financial and nonfinancial) to total quantified costs. calculations should be transparent, evidence-based, and grounded in documented assumptions.

SROI = (Total Financial and Nonfinancial Benefits – Total Financial and Nonfinancial Costs) ÷ Total Financial and Nonfinancial Costs

The project team should:

- Define measurable social and environmental indicators relevant to project outcomes.
- Establish baseline conditions prior to projecting social value.
- Quantify benefits and costs using transparent and defensible methodologies.
- Avoid overstating benefits or omitting offsetting costs.
- Align time horizons for benefits and costs appropriately.
- Apply consistent discounting and financial assumptions, where monetary valuation is used.
- Monitor actual outcomes against projected social value.
- Escalate governance review if projected social value materially deteriorates.

Effective application of SROI contributes to:

- Improved project selection based on total value creation
- Reduced risk of unintended social or environmental harm
- Greater transparency in value assessment
- Stronger alignment between investment decisions and long-term system resilience

Impact Evaluation Considerations

1. Are social and environmental benefits clearly defined and measurable?
2. Are baseline conditions documented prior to valuation?
3. Are valuation assumptions transparent and defensible?
4. Could social costs offset projected financial gains?
5. Does the project strengthen or weaken long-term social capacity?

Where SROI materially influences feasibility decisions, it should be incorporated into the P5 Impact Analysis and governance review processes.

Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.3) and SDG 10 (Target 10.2)
- GRI Alignment: GRI 3 and GRI 413
- TCFD Alignment: Strategy (where social performance affects long-term value)
- ISSB Alignment: Sustainability-related financial disclosures, where material

5.1.4 Modeling and Simulation

This element addresses the structured use of modeling and simulation to evaluate project feasibility under conditions of uncertainty, complexity, and interdependent variables. It evaluates whether decision-makers have tested project assumptions against alternative scenarios, stress conditions, and sustainability risk exposure.

Modeling involves constructing mathematical, logical, or system representations of project variables and relationships. Simulation applies those models to explore the effects of uncertainty, alternative inputs, regulatory change, environmental thresholds, or market volatility.

The project team should:

- Define transparent assumptions underlying models and simulations.
- Test multiple scenarios, including adverse and stress-case conditions.
- Evaluate environmental, social, and financial risk interactions within models.
- Assess threshold exceedance risks under different assumptions.
- Document limitations and uncertainty ranges in model outputs.
- Update models when material assumptions change.

Effective modeling and simulation contribute to:

- Improved resilience of project feasibility assessments
- Reduced exposure to optimistic bias in benefit projections
- Enhanced understanding of long-term environmental and financial risk
- More informed governance decisions under uncertainty

Impact Evaluation Considerations

1. Are key assumptions documented and subject to sensitivity analysis?
2. Have adverse scenarios been modeled alongside expected outcomes?
3. Do simulations incorporate environmental and regulatory risk variables?
4. Could threshold exceedance materially alter feasibility?
5. Are model limitations clearly disclosed to decision-makers?

Where modeling materially influences project approval or continuation decisions, it should be incorporated into the P5 Impact Analysis and governance review processes.

Mappings and Linkages

- SDG Alignment: SDG 9 (Target 9.5) and SDG 13 (Target 13.2)
- GRI Alignment: GRI 3
- TCFD Alignment: Strategy; Risk Management; Metrics and Targets
- ISSB Alignment: Climate-related scenario analysis disclosures, where material

5.2 Adaptive Governance

Adaptive governance addresses the project's capacity to respond effectively to changing environmental, social, regulatory, technological, and market conditions throughout the project life cycle. It evaluates whether governance structures, decision-making processes, and oversight mechanisms remain aligned with evolving material risks, stakeholder expectations, and system constraints.

Adaptive governance is not defined by speed alone. It requires intentional design optionality, system resilience, and disciplined reassessment of what is materially significant. Projects operating in dynamic contexts must be capable of adjusting course without degrading long-term value, exceeding defined thresholds, or eroding system capacity.

By preserving strategic choice, protecting decision integrity under stress, and reassessing priorities as conditions evolve, adaptive governance enables true organizational agility.

Failure to maintain adaptive governance may result in strategic drift, stranded assets, regulatory misalignment, reputational erosion, or irreversible environmental and social harm.

This category includes:

- Adaptive Materiality
- Design Optionality
- System Resiliency

Application Guidance

Impacts under this category arise when projects are designed or governed in ways that prevent timely response to emerging risks, threshold exceedance, regulatory change, or stakeholder shifts. The project team should evaluate whether governance mechanisms support:

- Scenario testing and structured decision review
- Clear escalation triggers tied to defined thresholds
- Periodic reassessment of material risks and priorities
- Integration of new information into planning and execution
- Alignment between evolving context and project objectives

This category is likely material in volatile regulatory environments, high-uncertainty markets, infrastructure-intensive projects, climate-sensitive regions, or projects with long operational horizons.

Where governance rigidity creates exposure to environmental, social, financial, or institutional risk, corrective adjustments should be incorporated into the Sustainability Management Plan and related governance instruments.

5.2.1 Adaptive Materiality

Material issues are issues that are significant enough to affect project viability, risk exposure, stakeholder confidence, or long-term value. What is considered material at project initiation may change as conditions, stakeholder expectations, or defined thresholds shift.

Adaptive materiality requires structured governance reviews that periodically reassess these issues, connect them to defined impact thresholds, and trigger decision adjustments when necessary.

The project team should:

- Establish a documented materiality baseline during project initiation.
- Define quantitative or qualitative thresholds that trigger governance review.
- Integrate materiality reassessment into phase-gate or life cycle review processes.
- Monitor regulatory, environmental, financial, and stakeholder signals that may alter material priorities.
- Link materiality updates to risk registers, benefit registers, and financial projections.
- Document governance responses when material issues change.
- Escalate decisions when threshold exceedance or emerging risk materially alters project viability.

Effective adaptive materiality contributes to:

- Improved alignment between project governance and evolving risk conditions
- Earlier identification of emerging environmental, social, or financial exposure
- Reduced likelihood of strategic drift or stranded investment
- Enhanced durability of long-term economic and institutional value
- Greater transparency and defensibility in decision-making

Impact Evaluation Considerations

1. Are material issues formally reviewed at defined life cycle intervals?
2. Are threshold exceedances linked to required governance actions?
3. Are changes in stakeholder expectations incorporated into decision-making?
4. Are materiality shifts reflected in risk, benefits, and financial documentation?
5. Could failure to reassess material issues materially affect project legitimacy or value durability?

Where adaptive materiality materially influences project direction, updates should be incorporated into the Sustainability Management Plan and reflected in governance documentation.

Mappings and Linkages

- SDG Alignment: SDG 16 (Target 16.6)
- GRI Alignment: GRI 3
- TCFD Alignment: Strategy; Risk Management; Metrics and Targets
- ISSB Alignment: IFRS S1 governance and sustainability-related disclosure requirements, where material

5.2.2 Design Optionality

This element addresses the deliberate incorporation of flexibility into the project's design so that the product, system, or service can adapt to foreseeable and unforeseeable change without disproportionate cost, disruption, or loss of value.

Design optionality recognizes that conditions will shift. Regulatory frameworks evolve. Market expectations move. Climate impacts intensify. Technologies advance. A project that is technically complete but structurally rigid may meet today's needs while undermining tomorrow's resilience.

Optionality does not mean overengineering. It means embedding thoughtful, proportionate flexibility at critical decision points so the project outcome can evolve without structural rework.

Optionality may include modular architecture, scalable capacity, configurable features, phased deployment, expandable infrastructure, or contractual structures that allow strategic redirection without collapse of the overall business case.

The project team should:

- Identify key uncertainty domains that could materially affect long-term value or compliance.
- Evaluate whether current design decisions lock the project into irreversible pathways.
- Incorporate modular or scalable design principles, where life cycle uncertainty is high.
- Preserve decision windows, where future data is expected to materially influence direction.
- Avoid premature optimization that eliminates strategic flexibility.
- Explicitly document where flexibility has been intentionally preserved or intentionally constrained.

Effective design optionality contributes to:

- Increased long-term value durability
- Reduced future retrofit costs
- Improved capacity to respond to regulatory, environmental, or market shifts
- Lower systemic risk exposure across the portfolio
- Enhanced governance credibility through proactive uncertainty management.

Impact Evaluation Considerations:

1. Does the current design create irreversible lock-in that could become misaligned with future policy, market, or environmental conditions?
2. Are major capital commitments being made before critical uncertainties are resolved?
3. Could modest up-front flexibility materially reduce long-term adaptation cost?
4. Has the team distinguished between productive constraint and unnecessary rigidity?
5. Would failure to incorporate flexibility materially increase future write-down risk?

Where optionality materially affects value durability, regulatory exposure, or long-term system viability, it should be formally assessed in the P5 Impact Analysis and addressed in the Sustainability Management Plan.

5.2.3 System Resilience

This element addresses the project's capacity to maintain functional integrity and decision quality under stress. It evaluates whether governance structures preserve judgment, reversibility, and controlled pause when the project is exposed to disruption, volatility, or pressure.

System resilience is not the ability to endure strain indefinitely. It is the ability to absorb shock without collapsing into premature certainty, irreversible commitment, or displaced harm. A resilient system preserves choice under pressure rather than narrowing it.

The project team should:

- Identify critical decision points where loss of reversibility would materially increase risk.
- Define explicit stop or pause conditions tied to threshold exceedance.
- Protect escalation pathways that can interrupt motion without reputational penalty.
- Stress-test governance assumptions under adverse environmental, regulatory, or market scenarios.
- Ensure accountability remains aligned with real decision authority during disruption.
- Periodically review whether resilience mechanisms remain functional under actual operating conditions.

Effective system resilience contributes to:

- Preservation of decision integrity under volatility
- Reduced likelihood of irreversible commitment under uncertainty
- Improved capacity to absorb shock without exporting harm
- Enhanced durability of long-term economic and institutional value

Impact Evaluation Considerations

1. Are defined pause or stop mechanisms available after project initiation?
2. Can authority intervene before commitment becomes irreversible?
3. Are stress conditions modeled beyond financial exposure?
4. Does disruption narrow decision space or preserve it?
5. Could loss of reversibility materially affect long-term viability?

Where resilience materially affects project viability, resilience mechanisms should be incorporated into governance documentation and reflected in the Sustainability Management Plan.

Mappings and Linkages

- SDG Alignment: SDG 9 (Target 9.1) and SDG 16 (Target 16.6)
- GRI Alignment: GRI 3
- TCFD Alignment: Strategy; Risk Management
- ISSB Alignment: IFRS S1 governance and risk disclosures, where material

5.3 Market and Economic Stimulation

The Market and Economic Stimulation category addresses the broader economic consequences of project activities and outcomes beyond direct financial return. It evaluates how projects influence market behavior, local and regional economic systems, capital allocation signals, and long-term economic resilience.

Projects may shape market standards, influence supply chains, alter competitive dynamics, and affect economic capacity in ways that extend beyond immediate stakeholders. These effects may be positive, neutral, or detrimental depending on how the project is designed, governed, and disclosed.

Economic effects are not limited to short-term stimulus. They include indirect impacts, systemic risk exposure, and the extent to which project outcomes strengthen or weaken long-term economic stability.

This category includes:

- Economic regeneration
- Indirect benefits
- ESG disclosures and sustainability reporting

Application Guidance

Impacts under this category arise when project outcomes influence market norms, local economies, capital flows, regulatory expectations, or stakeholder confidence. The project team should evaluate whether economic effects are durable, transparent, and aligned with long-term system resilience.

This category is likely material where projects are capital-intensive, infrastructure-dependent, market-shaping, or publicly visible. Materiality should be reassessed throughout the project life cycle as economic conditions and stakeholder expectations evolve.

Where impacts are within project influence, the team should identify strategies that strengthen durable economic value, avoid structural dependency, and enhance transparency in how value is created and distributed.

5.3.1 Economic Regeneration

This element addresses the measurable strengthening of economic systems influenced by the project. It evaluates whether project activities and outcomes enhance long-term productive capacity, financial resilience, and institutional stability beyond documented baseline conditions.

Economic regeneration is distinct from short-term economic stimulus or temporary spending effects. It requires demonstrable improvement in durable economic indicators, such as workforce capability, supplier capacity, infrastructure robustness, capital efficiency, or reduced structural dependency.

Projects may influence economic systems through procurement practices, infrastructure investment, technology deployment, workforce development, and capital allocation decisions. Regenerative outcomes must be supported by baseline data and measurable performance indicators over an appropriate timeframe.

The project team should:

- Establish baseline economic conditions within the project's area of influence.
- Identify opportunities to strengthen long-term economic capacity beyond minimum project requirements.
- Integrate supplier development, workforce capability enhancement, or infrastructure resilience into project planning, where feasible.
- Avoid economic arrangements that create long-term dependency or systemic vulnerability.
- Assess whether capital investments reduce or increase exposure to stranded asset risk.
- Monitor and document measurable improvements in economic resilience over defined time horizons.
- Distinguish between temporary economic activity and durable system enhancement.

Effective economic regeneration contributes to:

- Increased long-term productive capacity
- Improved economic resilience and reduced structural vulnerability
- Enhanced institutional and supplier capability
- Greater durability of value beyond the project life cycle
- Stronger alignment between economic growth and system sustainability

Impact Evaluation Considerations

1. Are baseline economic conditions clearly documented?
2. Do project decisions measurably improve long-term capacity rather than short-term output?
3. Are improvements durable beyond the project's operational phase?
4. Do procurement or investment structures increase or decrease systemic dependency?
5. Could the project materially strengthen or weaken economic resilience over time?

Where regenerative outcomes are pursued, they should be incorporated into the Sustainability Management Plan with defined indicators, monitoring intervals, and governance oversight.

Mappings and Linkages

SDG Alignment: SDG 8 (Target 8.3) and SDG 9 (Target 9.2)
GRI Alignment: GRI 203 and GRI 204

5.3.2 Indirect Benefits

This element covers the policies, procedures, and practices needed to identify and increase benefits. This element addresses the identification and evaluation of secondary or systemic benefits that may arise from project activities and outcomes beyond direct financial or operational returns. It evaluates whether broader economic, social, or environmental effects materially influence long-term value creation.

Indirect benefits may include supply chain strengthening, market signaling effects, workforce spillover capability, infrastructure cobenefits, environmental improvements, or innovation diffusion. These effects may not be fully captured in the initial business case but can materially affect long-term system capacity.

The project team should:

- Identify potential indirect benefits during feasibility and life cycle reviews.
- Assess whether such benefits are measurable and time-bound.
- Distinguish durable systemic effects from temporary or speculative gains.
- Avoid overstating indirect benefits without supporting evidence.
- Reassess indirect benefit assumptions as project conditions evolve.
- Incorporate material indirect effects into governance and value documentation, where appropriate.

Effective recognition of indirect benefits contributes to:

- More complete evaluation of total project value
- Improved understanding of systemic economic and social effects
- Reduced risk of undervaluing long-term capacity enhancement
- Greater transparency in how value is created and distributed

Impact Evaluation Considerations

1. Are indirect benefits clearly identified and supported by evidence?
2. Are benefits durable beyond the immediate project phase?
3. Do claimed spillover effects materially strengthen system capacity?
4. Are indirect benefits differentiated from aspirational or speculative claims?
5. Could indirect effects materially influence stakeholder or market response?

Where indirect benefits materially affect long-term value, they should be incorporated into governance review and reflected in the Sustainability Management Plan.

Mappings and Linkages

- SDG Alignment: SDG 8 (Target 8.3) and SDG 9 (Target 9.5)
- GRI Alignment: GRI 3 and GRI 203
- TCFD Alignment: Strategy (where systemic impacts influence long-term value)
- ISSB Alignment: Sustainability-related financial disclosures, where material

5.3.3 ESG Disclosures and Sustainability Reporting

This element addresses the integration of project-level impacts into enterprise sustainability and ESG disclosures. It evaluates whether environmental, social, and governance impacts generated by the project are identified, measured, and reported in alignment with applicable disclosure frameworks.

Projects are primary generators of organizational impact. Capital investments, infrastructure development, product design, procurement decisions, and operational changes originate at the project level. As such, project activities are often material to sustainability reporting and may directly influence enterprise disclosures under recognized frameworks.

ESG disclosures and sustainability reports communicate an organization's performance, risks, and commitments across environmental, social, and governance domains. Project data—particularly where it affects emissions, resource use, human rights, community impact, or financial exposure—must be incorporated into reporting processes to ensure transparency and completeness.

The project team should:

- Obtain and understand the sustainability objectives and disclosure obligations of the sponsoring organization(s).
- Conduct and maintain a P5 Impact Analysis throughout the project life cycle.
- Develop and update a Sustainability Management Plan aligned with identified material impacts.
- Coordinate with governance, finance, and sustainability functions to determine reporting relevance of project impacts.
- Provide accurate, timely, and verifiable data to support enterprise disclosures.
- Escalate when project impacts materially alter reported performance or commitments.

Effective integration of project impacts into reporting contributes to:

- Improved accuracy and completeness of sustainability disclosures
- Reduced risk of misstatement or omission of material impacts
- Stronger alignment between project outcomes and enterprise commitments
- Enhanced credibility of ESG reporting through traceable project-level evidence

Impact Evaluation Considerations

1. Are project-generated impacts evaluated for reporting materiality?
2. Is project data traceable, verifiable, and aligned with enterprise reporting frameworks?
3. Could omission of project impacts materially affect disclosed performance?
4. Are threshold exceedances or significant incidents reflected in reporting processes?
5. Does the project influence stated organizational sustainability commitments?

Where project impacts are material to enterprise disclosures, reporting obligations should be reflected in the Sustainability Management Plan and integrated into governance oversight mechanisms.

Mappings and Linkages

- SDG Alignment: SDG 12 (Target 12.6) and SDG 16 (Target 16.6)
- GRI Alignment: GRI 2 and GRI 3
- TCFD Alignment: Metrics and Targets; Governance
- ISSB Alignment: IFRS S1 and S2 sustainability-related financial disclosures

6 Reporting and Disclosure Integration

Projects are primary generators of environmental, social, and economic impact. As such, project-level decisions frequently influence enterprise sustainability disclosures and regulatory reporting obligations. Section 6 addresses how project impacts identified through the P5 framework support organizational transparency, accountability, and compliance with recognized reporting standards.

Sustainability reporting and ESG disclosures increasingly require organizations to identify material impacts, quantify performance, and explain how risks and opportunities are managed. Projects play a central role in this process because they allocate capital, shape infrastructure, introduce new technologies, and alter operational systems. Impacts generated at the project level often flow directly into enterprise reporting metrics.

The purpose of this section is to clarify the relationship between project-level impact identification and organizational reporting obligations. Detailed implementation guidance, templates, and process flows are provided in *The Project Sustainability Reporting Guide (PSRG)*. The P5 Standard provides the impact identification architecture that enables disciplined reporting integration.

This section includes:

- ESG disclosures
- Sustainability reports
- Materiality
- Double materiality
- Utilizing P5 in ESG disclosures and sustainability reporting
- Mapping P5 elements to reporting standards

6.1 ESG Disclosures

ESG (environmental, social, governance) disclosures communicate how sustainability-related risks and opportunities affect organizational performance and long-term value. These disclosures are often integrated into annual reports, regulatory filings, or investor-focused sustainability statements.

ESG disclosures focus on financially relevant sustainability matters, including climate exposure, workforce practices, governance controls, supply chain risks, and environmental liabilities. Because projects generate many of these impacts, project-level data is frequently material to enterprise ESG reporting.

Projects that fail to document and manage their impacts may create disclosure gaps or misstatements at the enterprise level.

6.2 Sustainability Reports

Sustainability reports provide broader transparency regarding an organization’s environmental, social, and governance performance. These reports often address resource use, emissions, labor practices, community impacts, and long-term commitments.

Unlike investor-focused ESG disclosures, sustainability reports typically communicate both financial and impact performance to a wider range of stakeholders. Project outcomes often form the measurable basis for these reported impacts.

6.3 Materiality

Materiality refers to issues significant enough to influence decision-making, risk exposure, stakeholder confidence, or long-term value. A matter is material if failure to address it could alter project viability, legitimacy, or enterprise performance.

Projects are frequently material because they represent the mechanism through which strategy is implemented and capital is deployed. Changes in project scope, impact, or performance may materially affect enterprise disclosures.

6.4 Double Materiality

Double materiality recognizes that sustainability operates in two directions:

- Outside-in: How environmental and social conditions affect financial performance
- Inside-out: How organizational activities affect environmental and social systems

Projects influence both. They may be exposed to climate risk, regulatory change, or market shifts (outside-in), and they may alter ecosystems, communities, and economic systems (inside-out). Effective project governance must consider both dimensions.

Figure 6-1 depicts double materiality.

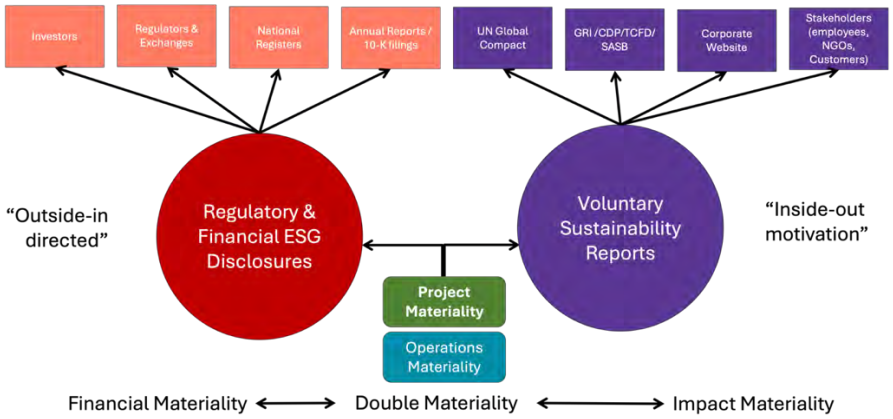

Figure 6-1 Double Materiality Principle

Investors and regulators increasingly apply the principle of double materiality, which requires organizations to assess both financial materiality (i.e., how sustainability issues affect the organization's financial performance) and impact materiality (i.e., how the organization's activities affect society and the environment). This framework recognizes that sustainability risks and opportunities operate in two

directions: external sustainability conditions influence enterprise value, and organizational activities influence environmental and social systems.

In the European Union, double materiality has been formalized through sustainability disclosure regulations, most notably under the Corporate Sustainability Reporting Directive (CSRD). These rules require certain companies to disclose both the financial risks arising from sustainability issues and the broader environmental and social impacts of their operations. This approach acknowledges that an organization's effects on the world—beyond its financial bottom line—are material to stakeholders and must be transparently reported.

6.5 Utilizing P5 in ESG Disclosures and Sustainability Reporting

The P5 Standard provides the impact identification architecture that supports enterprise sustainability disclosures. Project-level impacts identified through P5 form the foundation for determining material topics and disclosure relevance within reporting frameworks (Figure 6-2).

Operational implementation of the P5 Impact Analysis (P5IA) and the Sustainability Management Plan (SMP) is addressed in Section 7. Section 7 defines how impacts are identified, evaluated, scored, governed, and translated into structured management actions that may subsequently support reporting processes.

Detailed reporting methodology, templates, and process flows are provided in *The Project Sustainability Reporting Guide (PSRG).*

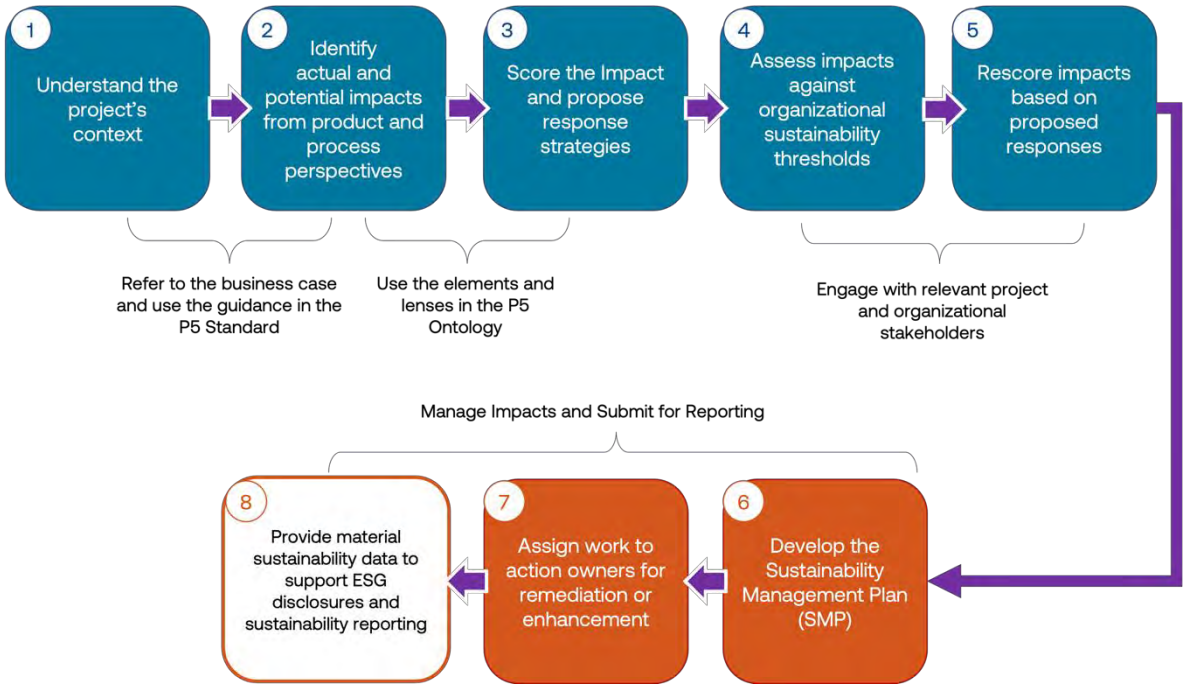

Figure 6-2 Project Sustainability Impacts to Reporting/Disclosure Materiality

6.6 Mapping P5 Elements to Reporting Standards

Many reporting frameworks require organizations to identify actual and potential impacts before disclosing how they are managed. The P5 framework directly supports this requirement by structuring impact identification across People, Planet, and Prosperity domains.

P5 elements align with widely recognized reporting standards, including:

- Global Reporting Initiative (GRI)
- IFRS Sustainability Disclosure Standards (including climate-related disclosures)
- Task Force on Climate-related Financial Disclosures (TCFD)
- Industry-specific ESG standards

Mapping tables are provided within the PSRG to support consistent integration of project-level impacts into enterprise reporting.

7 Implementation, Governance, and Applied Use

Projects are not only generators of impact—they are mechanisms of decision. Every approval, procurement action, scope change, design selection, and governance review carries environmental, social, and economic consequences. Section 7 addresses how the P5 Standard moves beyond impact identification and becomes embedded within project governance, performance management, and organizational oversight.

Sustainability cannot remain descriptive. It must be operationalized. Identifying impacts is necessary, but insufficient. Organizations must also evaluate their magnitude, assess system capacity effects, determine materiality, apply structured responses, and aggregate performance in a manner that supports comparison, escalation, and portfolio decision-making. Section 7 formalizes the mechanisms that transform P5 from a diagnostic framework into a practical management system.

The purpose of this section is to clarify how P5 is applied in real project environments—including how impacts are scored, how those scores are aggregated, how thresholds trigger governance action, and how sustainability performance is integrated into status reporting, procurement, selection, and organizational controls. While the P5 Standard defines the impact architecture, this section defines how that architecture is used to guide decisions.

This section includes:

- P5 Impact Analysis
- Sustainability Management Plan
- P5 Impact Analysis to SMP to Reporting
- Sustainability in Project Status Reporting
- PMO Governance and Organizational Oversight
- Sustainability in Project Closure and Transition
- Project Selection and Portfolio Prioritization
- Vender Analysis and Sustainable Procurement
- P5 in Agile and Hybrid Delivery
- Lessons Learned
- Project Status Reporting
- Project Closure
- Using AI to Apply the P5

7.1 P5 Impact Analysis

A P5 Impact Analysis (P5IA) is used to identify, describe, and prioritize sustainability impacts so as to:

- Improve the project's expected benefits and value contribution.
- Increase positive impacts and reduce negative impacts to society, the environment, and economic performance.
- Support alignment with organizational sustainability objectives and commitments.

A P5IA provides decision-makers with actionable information to justify adjustments to scope, approach, delivery strategy, controls, and resources in socially, environmentally, and fiscally responsible ways. The P5IA supports project performance related to governance, stakeholders, resources, finance, and risk by identifying sustainability impacts that may affect project outcomes.

P5IA Mechanics

A P5IA should be completed as early as practical and revisited at defined decision points and when significant changes occur. In PRiSM-based life cycles, it is typically initiated during early discovery or definition activities and refined through planning and delivery.

To perform a P5IA, the project team should understand the business case, requirements, constraints, and the organization's sustainability priorities. Lessons learned and organizational knowledge from previous projects provide useful inputs.

To perform a P5IA, the project team should generally:

- Identify internal and external events that may occur during the project or during the useful life of the project deliverable for each P5 element.
- Describe the causes, pathways, and potential sustainability impacts of each event.
- Rate impacts based on the magnitude and significance of their effect on sustainability objectives.
- Identify responses to minimize negative impacts and maximize positive impacts.
- Rerate impacts assuming the responses are implemented and monitored.

Assigning Items to Elements

Some P5 elements overlap. For example, the use of toxic chemicals may be recorded under health and safety, contamination and pollution, or procurement practices. Placement is less important than ensuring that the impact is identified, assessed, and managed. Where visibility is beneficial, the item may be recorded in more than one location.

Format

PMI and GPM offer a template to support preparation of a P5 Impact Analysis. The template is free and can be downloaded from the GPM webpage at: https://www.gpm.org/p5 and PMI.org/learning/sustainability. Instructions for use are included within the template.

7.1.1 P5IA Mechanics

In general, a P5IA should be completed as early in the project as possible. In the GPM PRiSM (PRojects integrating Sustainable Methods) project life cycle, it is done in the discovery phase. In addition, the P5IA should be updated regularly throughout the project to ensure that the information is current, correct, and useful.

To perform a P5 Impact Analysis, the project team must understand the business case, the project requirements, and the organization's sustainability goals. Lessons learned from previous projects can also provide useful input.

To perform a P5IA, the project team should generally follow these steps:

- Identify internal and external events, which may occur during the project or during the useful life of the project product for each of the elements described in Sections 3, 4, and 5.
- Describe the cause(s) of the event and the potential sustainability impacts of each.
- Rate the impacts based on the magnitude of their effect on sustainability.
- Identify possible responses to each event to minimize the impact of negative events and maximize the impact of positive events.
- Rerate the impacts based on the assumption that the response is implemented.

The P5 Impact Analysis supports performance domains related to governance, stakeholders, resources, finance, and risk by identifying sustainability impacts that may affect project outcomes. Integrating P5IA results into project decision-making strengthens alignment with the system for value delivery described in the *PMBOK® Guide*—Eighth Edition.

7.1.2 P5 Impact Scoring and Aggregation

The P5 Impact Analysis does more than identify sustainability impacts. It also provides a practical way to understand how your project is performing overall.

Scoring helps you answer a simple question: “Is this project making things better, worse, or staying neutral across People, Planet, and Prosperity?”

The scoring model is not designed to be complex. It is designed to be usable.

Step 1: Score Each Element

After identifying impacts for each P5 element, assign a score using the 1–5 scale, as shown in Table 2-1.

Table 2-1 Impact Scoring

Score	What It Means in Plain Language
1: Severe Degradation	The project is causing significant harm and little or no mitigation is in place.
2: Degradation	There is negative impact, and mitigation is weak or incomplete.
3: Baseline Condition	The project is not materially improving or degrading the baseline condition.
4: Net Improvement	The project has reduced negative impact or created measurable improvement.
5: Net-Positive Enhancement	The project goes beyond mitigation and delivers strong positive or regenerative benefit.

You are not scoring effort, but rather impact compared to baseline conditions. If you cannot explain why a score is 4 or 5 with evidence, it probably isn’t.

Step 2: Calculate Subcategory Scores

Within each subcategory (e.g., Labor Practices or Energy), calculate the average of the element scores.

Example: Calculating a Subcategory Score

Let’s say you’ve scored the four elements under Labor Practices as follows:

- Employment and Staffing = 4
- Health and Safety = 3
- Training and Qualification = 3
- Equal Opportunity = 5

To calculate the subcategory score:

Add the element scores together and divide by the number of elements.

Score = (4 + 3 + 3 + 5) ÷ 4
Score = 15 ÷ 4
Score = 3.75

You may round to one decimal place (3.8) if needed for reporting consistency.

This means that, overall, the project is performing slightly above "Neutral" in Labor Practices—with some strengths (Equal Opportunity) and some areas needing improvement (Health and Safety and Training).

If one element is clearly more material than others, weighting may be applied—but that decision must be documented in the Sustainability Management Plan.

Step 3: Calculate Domain Scores

Next, average the subcategory scores within each domain: People, Planet, and Prosperity. This gives you three domain-level scores, which are often more useful than the overall score because they show where strengths and weaknesses exist.

Step 4: Calculate Overall Project Sustainability Score

The overall project score is the average of the three domain scores.

Example:

- People: 3.8
- Planet: 3.2
- Prosperity: 4.0

Overall Score = (3.8 + 3.2 + 4.0) ÷ 3 = 3.67

This is a decision-support score.

Important Safeguard: No Masking Rule

A project cannot score "Good" overall if it is performing "Really Bad" in a material area. If any element is rated 1: "Really Bad" and remains unmitigated, the overall project score should not exceed 3: "Neutral." This prevents serious harm in one area from being hidden by good performance elsewhere. A strong people score does not erase severe environmental damage. A strong financial score does not cancel human rights violations.

7.2 Sustainability Management Plan

A Sustainability Management Plan (SMP) describes how sustainability will be addressed, controlled, monitored, and reported during a project. P5 has an integral role in developing an SMP by identifying the subjects to be assessed and managed and by supporting the selection of appropriate responses. The SMP is the primary mechanism for integrating sustainability considerations into project governance and decision-making.

An SMP should be proportionate to the project's context, complexity, and potential impacts. For some projects, a high-level plan may be sufficient. For projects with significant potential impacts, the SMP should define impact thresholds and escalation protocols, establish measurement methods, and specify assurance and reporting requirements.

An SMP should generally include:

- **Purpose, scope, and boundaries.** The purpose of sustainability management for the project, the scope of the SMP, and the boundaries and assumptions used to define sustainability impacts (including relevant life cycle considerations for the project deliverable)
- **Governance and accountability.** Roles, responsibilities, and decision authorities for sustainability-related decisions, including escalation paths and decision forums for threshold breaches or material changes
- **Sustainability objectives and commitments.** Sustainability objectives linked to the business case and organizational priorities, including any commitments, constraints, or nonnegotiable requirements
- **Integration with P5 impact analysis.** A P5IA snapshot (current ratings and key assumptions), the approach for maintaining and updating the P5IA, and traceable linkage between prioritized impacts and planned responses; where the P5IA is rebaselined, the SMP should define approval requirements and documentation expectations.
- **Impact thresholds, tolerances, and controls.** Defined sustainability impact thresholds and tolerances (where applicable), trigger conditions, required corrective actions, and escalation protocols; thresholds should be expressed in measurable terms, where feasible and used to guide decision-making throughout the project.
- **Measurement framework and sustainability KPIs.** Key performance indicators derived from the P5IA, including baseline definitions, measurement methods, data sources, frequency, data ownership, and expectations for data quality and traceability
- **Planned responses and implementation approach.** Response strategies to minimize negative impacts and maximize positive impacts, including sequencing, resource requirements, dependencies, and how responses will be integrated into project plans and controls
- **Sustainability risk and opportunity management.** How sustainability-related risks and opportunities will be identified, assessed, monitored, and treated, including any differences from standard project risk management practices
- **Assessment summaries and exclusions.** Summaries of relevant assessments (e.g., environmental or social impact assessments), where applicable; the SMP should also document sustainability-related scope exclusions, including rationale and any compensating measures.
- **Reviews, reporting, and assurance.** Review cadence and decision points (including stage or phase reviews and triggers for reassessment), reporting requirements and formats (including integration with status reporting), and the approach to assurance, verification, or independent review, where required

- **Sustainability reporting interface.** A summary of how sustainability performance information will be prepared for internal governance and, where relevant, for external sustainability reporting and disclosures, including responsibilities and timing
- **Approvals and sign-offs.** Required approvals to authorize implementation of sustainability responses, controls, thresholds, and reporting obligations

GPM offers a template to support preparation of an SMP. The template is free and can be downloaded from the GPM webpage at: https://www.gpm.org/p5. Instructions for use are included within the template.

7.3 P5 Impact Analysis to SMP to Reporting

The sequence shown in Figure 7-1 reflects the correct order of responsible project governance.

Sustainability must begin with understanding context and identifying impacts.

The flow is intentional:

- **Context comes first** because sustainability decisions must be grounded in the business case and organizational priorities.
- **Impact identification precedes scoring** because you cannot evaluate what you have not defined.
- **Scoring precedes thresholds** because governance decisions require structured evaluation, not opinion.
- **Threshold assessment precedes planning** because not all impacts are material.
- **Rescoring follows proposed responses** to ensure that actions meaningfully reduce degradation or improve system capacity.
- **The sustainability management plan formalizes accountability**, so impacts are actively managed rather than passively documented.
- **Assignment of action owners ensures execution**, not aspiration.
- **Reporting is last** because disclosures must reflect managed and measured impacts—not assumptions.

This sequence protects decision integrity.

Figure 7-1 reflects a controlled progression from evaluation to action to transparency. Sustainability in P5 is therefore managed first and reported second.

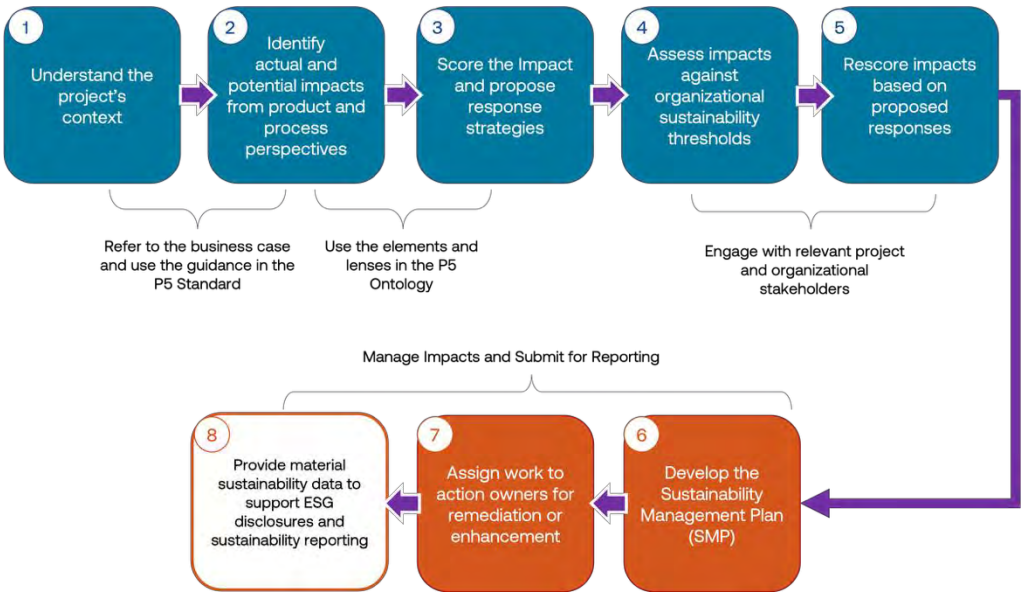

Figure 7-1 From Impact Analysis to Reporting Workflow

7.4 Sustainability in Project Status Reporting

Project status reporting is used to monitor progress toward delivering results and promised benefits. P5 can be used to ensure sustainability impacts and responses are included in that monitoring.

Status reporting may include:

- Changes in P5IA ratings at the element and subcategory level
- Progress against sustainability KPIs, targets, or thresholds defined in the SMP
- Exceptions, nonconformities, or emerging impacts requiring escalation
- Effectiveness of implemented responses and controls
- Forecasted sustainability impacts based on trend and performance data

7.5 PMO Governance and Organizational Oversight

PMOs can use P5 as a governance tool to standardize how sustainability is evaluated, planned, measured, and reported across projects—helping ensure consistency and improving the quality of sustainability inputs from project delivery.

High-value PMO applications include:

- **Standards and guidance:** Define minimum sustainability artifacts (e.g., P5IA + SMP) and when they are required (by project type, spend threshold, risk, or footprint).
- **Decision support:** Require sustainability considerations in project submissions and stage reviews, ensuring alignment with purpose-driven goals and organizational strategy.
- **Performance measurement:** Standardize sustainability metrics and dashboards so projects can be monitored consistently and aggregated for portfolio insight and reporting.

- **Continuous improvement:** Use lessons learned and recurring P5IA trends to refine playbooks, templates, and training over time.

7.6 Sustainability in Project Closure and Transition

At project completion, P5 provides a structured basis for sustainability lessons learned and transition readiness. This includes:

- The effectiveness of measures taken in response to sustainability impacts
- Impacts that occurred but were not predicted, including causes and early indicators
- Sustainability issues that could not be resolved, and the reasons why
- Residual impacts or obligations transferred to operations, product owners, or asset managers
- Recommendations to improve future project selection, planning, procurement, and governance

Assigning Items to Elements

Some of the P5 elements overlap. For example, when manufacturing a laptop, the impact of toxic chemicals might be included under project health and safety or contamination and pollution. Where it is placed in the P5IA is not as important as ensuring that the impact is identified and responded to. In fact, it may be useful to record such an item in multiple locations to ensure proper visibility.

7.7 Project Selection and Portfolio Prioritization

P5 can be used before a project is approved—during ideation, business case development, and portfolio selection—to ensure sustainability impacts are considered alongside traditional drivers (i.e., scope, schedule, cost, and risk). Where organizations use scoring models or balanced scorecards, P5 provides a consistent structure for defining sustainability criteria and comparing options across proposals.

Common ways to apply P5 to selection decisions include:

- **Sustainability-adjusted business case:** Incorporate major P5 impacts (positive and negative) as decision factors, not afterthoughts.
- **Option comparison:** Use summarized P5IA results to compare designs, delivery approaches, or "do nothing" alternatives using a consistent lens set.
- **Portfolio balance:** Aggregate sustainability impact profiles across projects to identify overinvestment in one driver (e.g., financial viability only) and underinvestment in environmental or social value.

7.8 Vendor Analysis and Sustainable Procurement

Procurement decisions can materially change a project's sustainability outcomes. P5 can be embedded into procurement planning, evaluation criteria, and contract management by translating relevant P5 impacts into measurable supplier requirements.

Good practices include:

- **Selection criteria and weights**, which should be driven by likely effects on project success criteria *and* sustainability factors; for PRiSM projects, selection criteria "should always include the P5 costs and benefits caused by the potential supplier and its supply chain."

- **Source selection**, which typically uses weighted criteria (e.g., experience, references, price, delivery), and transparency about evaluation methods, and thus, builds trust in the selection approach.
- **Best-value evaluations**, which treat sustainability performance as a scored factor (not a narrative add-on) and include verification practices appropriate to risk and materiality.

7.9 P5 in Agile and Hybrid Delivery

P5 can be applied in agile and hybrid delivery environments by integrating sustainability considerations into the cadence of iterative and incremental work. Agile approaches emphasize frequent delivery, rapid feedback, and continuous improvement. P5 complements this by ensuring sustainability impacts are evaluated and managed as scope evolves and increments are produced.

P5 in agile delivery is typically implemented through lightweight, repeated assessments rather than a single, fixed analysis. The objective is to ensure sustainability impacts remain visible, comparable, and actionable as the backlog changes and value is delivered in increments.

Application approach (iteration-based agile, e.g., sprints):

- **Backlog integration:** Translate prioritized P5IA findings into backlog items (e.g., features, enablers, or tasks), including sustainability responses, controls, and data needs.
- **Definition of ready (DoR)/definition of done (DoD):** Add sustainability acceptance criteria, where relevant (e.g., evidence requirements, testing, compliance checks, environmental or social controls).
- **Sprint planning:** Consider sustainability risks and impacts when selecting and sequencing work, including "sustainability debt" (i.e., work deferred that increases negative impacts or weakens controls).
- **Reviews/demonstrations:** Include sustainability performance in sprint reviews (e.g., KPI trend, threshold status, impact changes, and verification evidence).
- **Retrospectives:** Inspect and adapt sustainability practices (what worked, what didn't, what needs to change), and capture improvements as backlog items for the next iteration.

Application approach (flow-based agile, e.g., Kanban):

- **Policies and workflow controls:** Make sustainability-related policies explicit (e.g., required checks before moving to "Done").
- **Work-in-progress (WIP) limits:** Use WIP discipline to reduce rework and prevent sustainability controls from being bypassed under delivery pressure.
- **Cadenced reviews:** Where flow is continuous, establish a regular cadence for sustainability review, escalation, and rebaselining (e.g., every two weeks or at release points).

Updating the P5IA in agile contexts:

A P5IA should be initiated early and then reviewed at defined points (e.g., release planning, major backlog changes, architecture/design decisions, supplier selection, or when new impacts emerge). Updates should focus on what has materially changed and what requires a new response or escalation.

Agile governance considerations:

Where impact thresholds are exceeded or where changes introduce significant new impacts, the team should escalate through the defined governance path and update the SMP controls, KPIs, and reporting commitments accordingly.

7.10 Lessons Learned

At closure, P5 supports structured sustainability learnings, including:

- Effectiveness (or ineffectiveness) of measures taken in response to sustainability impacts
- Sustainability issues that arose and could not be addressed, and why
- Areas to focus on in future projects or similar projects still in process

7.11 Project Status Reporting

Project status reports are used to monitor a project's progress toward delivering its expected results and promised benefits. P5 can be used to ensure that the impact on sustainability is included in that monitoring. For example, changes in P5IA ratings at the subcategory level would provide a useful overview.

7.12 Project Closure

When a project is completed, P5 can provide useful information to support lessons learned about sustainability.

This includes:

- The effectiveness (or ineffectiveness) of measures taken in response to sustainability impacts
- Sustainability issues that arose during the project that could not be addressed or resolved and the reasons why
- Areas to focus on in future projects or in similar projects that are in process

7.13 Using AI to Apply the P5 Standard

AI can strengthen how P5 is used day-to-day by improving consistency, coverage, speed, and traceability across People, Planet, Prosperity, Process, and Product. The intent is to support P5 application (planning, decision-making, assurance, reporting), not to replace accountable human judgment.

AI may be used to support the P5 Standard in the following ways:

1. P5 scoping and boundary setting (early-stage use of P5)

- Identify likely P5 hot spots from a draft scope, work breakdown structure, procurement plan, or requirements.
- Suggest which stakeholders and value-chain stages need attention under P5.
- Highlight missing P5 categories (e.g., process impacts often overlooked).

2. Evidence gathering and document synthesis

- Extract P5-relevant statements from project documents (e.g., charters, requirements, vendor responses, health, safety, and environment [HSE] plans, communications plans).
- Summarize stakeholder inputs into P5 themes (e.g., community concerns → "People"; resource intensity → "Planet").

- Create an evidence index, so P5 decisions are easier to audit later.

3. Option comparison and trade-off support (P5 in decision-making)

- Structure alternatives against the P5 dimensions (pros and cons by People, Planet, Prosperity, Process, and Product).
- Run scenario thinking (e.g., “If we choose vendor A versus B, what shifts in Planet + Prosperity?”).
- Help teams make trade-offs explicit and documented (instead of implicit).

4. Risk and opportunity identification

- Generate candidate risks and opportunities mapped to each P5 dimension.
- Flag common “misses” (e.g., People: accessibility; Planet: end-of-life; Process: governance gaps).
- Support mitigation brainstorming aligned to project constraints.

5. Measurement and reporting support

- Draft P5-aligned narrative for reports (what changed, why, what was mitigated).
- Turn raw metrics into P5-oriented insights (without inventing data).
- Maintain consistency of language across reports and phases.

6. Stakeholder communications

- Tailor P5 messages for different audiences (community, regulators, suppliers, executives).
- Prepare consultation summaries and response logs mapped to P5 topics.
- Improve accessibility (plain language versions, translations).

7. Portfolio/program-level P5 standardization

- Normalize how multiple projects describe P5 impacts (taxonomy, consistent phrasing).
- Identify cross-project themes and repeated mitigation patterns.
- Support governance bodies with a comparable view of P5 performance.

To protect the integrity of P5 application, AI must not:

- Make final P5 decisions or sign-offs (humans remain accountable).
- Invent evidence, metrics, stakeholder positions, or compliance claims.
- Replace stakeholder engagement with synthetic “assumed” viewpoints.
- Be used to justify a predecided outcome (post-hoc rationalization).

7.13.1 Minimum Controls When Using AI for P5 Work Products

When AI is used in any P5 activity discussed above, apply these minimum controls:

- **Traceability:** Keep links to source inputs and note what the AI produced versus what humans confirmed/edited.
- **Verification:** Any factual claim, metric, or compliance statement must be verified against an approved source.
- **Disclosure (internal):** Mark sections that were AI-assisted for internal governance/audit clarity.
- **Data handling:** Don't input confidential/personal data into nonapproved tools; minimize data shared.
- **Human review:** A named owner reviews and approves AI-assisted P5 outputs before use in decisions or external reporting.

Practical examples:

- **Workshop support:** AI drafts a P5 workshop agenda and prepopulates a P5 prompt list based on scope.
- **Procurement support:** AI scans vendor responses and flags P5-relevant claims for validation (Planet/People/Process).
- **Reporting support:** AI turns project notes into a P5-aligned narrative, then the team verifies all facts/metrics.

Annex 1
Recommended Reading

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Annex 2
Feasibility Analysis Metrics

This annex provides additional information in support of the Project Feasibility subcategory.

When funding a project, the expectation is that the project will generate more value than it consumes. Value includes monetary returns as well as nonmonetary returns, such as regulatory compliance and increased sustainability. The metrics described within this annex are widely accepted approaches to evaluating that expectation.

Feasibility analysis is not a one-time calculation performed only at project approval. It is a continuing decision discipline used to test whether a project remains justified as assumptions, conditions, and constraints change. A project may appear feasible at initiation and become infeasible later because of cost escalation, schedule delay, regulatory change, resource constraints, market shifts, or previously unrecognized environmental or social impacts. For this reason, feasibility analysis should be treated as a living assessment that supports both initial authorization and ongoing governance decisions throughout the project life cycle.

The use of feasibility analysis metrics for projects can be complicated by several factors:

- All these calculations normally use single values as inputs, while numbers for projects are almost always ranges, and often large ranges. This means that feasibility analysis for projects should almost always be probabilistic rather than deterministic.
- The inputs used in the calculations must include all project costs, all expected benefits, and all expected dis-benefits to minimize the potential for inaccurate guidance. For example, many project budgets do not include fully-loaded salaries and thus understate the project's cost.
- The inputs used must be updated regularly throughout the project, and the calculations must be redone with the new values. The updated results must be considered when deciding whether to continue the project.
- There is no "one best" metric. It is possible for one metric to show that Project A should be funded and for another to show that it should not be.

A2.1 Direct Financial Benefits

Direct financial benefits are gains that are derived from project activities or project results.

For projects done under contract, direct financial benefits are generally limited to the payments received for project work. For most other projects, direct financial benefits come from the use or sale of the project product.

Estimates of direct financial benefits should reflect *present value* as described in Section 5.

A2.2 Benefit-Cost Ratio

Benefit-cost ratio (BCR) is a metric used to evaluate the relationship between the benefits and costs of a project. The higher the BCR, the higher the value of the investment in the project.

BCR is calculated using the following formula:

BCR = Benefits / Costs

Benefits are usually limited to direct financial benefits (see Section A2.1), and costs are usually limited to actual, out-of-pocket costs to complete the project. Disbenefits may be deducted from benefits or added to costs. If indirect benefits are included in benefits, indirect costs must also be included in costs.

Both figures should reflect *present value* as described in Section A2.3.

The inverse of a BCR is a cost-benefit ratio (CBR).

A2.3 Present Value

Present value (PV) is the current value of a future amount of money given a specified rate of return. It reflects the fact that a future amount is worth less than the same amount today.

In financial terms, the future amount is discounted (reduced) by the expected rate of return to determine the present value. Typically, the expected rate of return is the interest rate that would be earned if the money were invested instead of being expended on the project.

Present value is calculated using the flowing formula:

$PV = \text{Future value} / (1 + r)^n$
where:

Future value = the amount that is expected in the future
r = the expected rate of return
n = number of periods until the future value is received

Since projects often extend over multiple periods, net present value (NPV) is more commonly used than simple present value. NPV is the sum of the present values for each period, where each period's future value is the net cash flow for that period.

Present value is *not* related in any way to planned value, which is used in earned value management.

A2.4 Return on Investment

Return on investment (ROI) is a performance measure used to evaluate the financial return from the money expended on a project. The higher the ROI, the higher the value of the investment in the project.

As with the benefit-cost ratio, disbenefits may be deducted from benefits or added to costs.

ROI is calculated using the following formula:

ROI = (Direct Financial Benefits – Project Costs) / Project Costs

ROI is normally expressed as a percentage: If the raw calculation results in a value of 0.32, the ROI is expressed as 32%. Both costs and benefits should reflect present value.

A2.5 Internal Rate of Return

Internal rate of return (IRR) is the annual rate of interest that could theoretically be earned by investing the project's cash flows in an alternative investment.

If a project's IRR is higher than the return offered by other alternatives (e.g., other projects, stock purchases, or bank accounts), the project is considered a good investment.

IRR is calculated by solving the following formula:

$$0 = CF_0 + \frac{CF_1}{(1+IRR)} + \frac{CF_2}{(1+IRR)^2} + \frac{CF_3}{(1+IRR)^3} + \ldots + \frac{CF_n}{(1+IRR)^n}$$

where CF_0 = the initial outlay and CF_1, CF_2 CF_3 … CF_n = cash flows for each period

Feasibility analysis is not an exercise in calculation alone. It is a decision discipline. The purpose of applying these metrics is not to produce a single "correct" answer, but to inform judgment under uncertainty. Projects rarely present clear outcomes: they present ranges of possible results influenced by changing conditions, assumptions, and constraints.

A project that appears viable under one set of assumptions may become unviable under another. For this reason, feasibility analysis should be used to test robustness, compare alternatives, and support ongoing governance decisions throughout the project life cycle and to determine whether the project should proceed, be modified, or be stopped.

Annex 3
Glossary of Key Terms

Age-appropriate labor means ensuring that children are not put in dangerous or exploitative situations while still allowing them to develop essential job skills. It is used to describe work suitable for a person's skill level and maturity.

Air and water quality involves measures of contamination in air and water sources.

Anti-corruption is the practice of rejecting both offers of and requests for gifts, payments, or other forms of benefits to influence the activities, results, or outcomes of the project. It involves making sure that the project is free of unethical practices such as bribery, money laundering, fraud, and embezzlement.

Baseline condition is the documented state of environmental, social, or economic systems prior to project intervention. It provides the reference point against which impacts, mitigation, restoration, or regeneration are measured.

Biological diversity, also known as biodiversity, refers to the variety of life forms on Earth. It includes all ecosystems and all species of plants, animals, bacteria, fungi, and microorganisms that make up a particular environment or habitat. It also includes all genetic variations of those species.

Business case analysis is the process of developing a business case that provides justification for the initiation or continuation of the project. It involves analyzing the underpinning logic of funding the project. This requires identifying the expected benefits and dis-benefits, likely costs and revenues, staffing requirements, major risks, schedule alternatives, and stakeholder impacts associated with a proposed project.

Clean energy return (CER) refers to the amount of renewable energy generated by the project or the project product that exceeds the amount needed. CER is normally returned to the grid for use by others.

Community engagement is the practice of treating residents as stakeholders in the project. This is essential, as it ensures that local needs and perspectives are taken into consideration when taking any action that affects the community. It also requires a two-way exchange of information and ideas between the project team and the community to make the project more effective, efficient, and beneficial for all involved.

Contamination and pollution are the release of waste materials or hazardous substances into the environment. They will almost always have a negative impact on ecosystems and human health. Contamination and pollution most often occur due to neglectful practices in manufacturing, construction, agriculture, and related industries that generate waste materials or hazardous chemicals, but they can also occur in other projects that do a poor job of disposal (see Section 4.4.2).

Customer health and safety include the measures taken to ensure the physical and mental well-being of the end users of the project's results. This includes providing information about risks and hazards, proper customer handling during the project, and adherence to relevant safety standards, protocols, laws, and regulations.

Customer privacy and data protection encompass the measures taken to safeguard customer data, such as personal information or financial details. This includes providing secure storage facilities and encryption technologies, implementing appropriate access controls and authentication procedures, and ensuring compliance with relevant laws and regulations.

Cumulative impact is the combined effect of multiple activities over time, which may be individually minor but collectively significant.

Decision integrity is the alignment between available evidence, defined thresholds, governance processes, and the decisions taken under those conditions.

Deferred impact is an effect that occurs in the future as a result of present decisions, often beyond the project life cycle.

Digital communication is the use of digital tools and platforms to communicate about the project. These tools can include websites, email newsletters, social media accounts, messaging applications, and other digital communication channels.

Displaced impact is an effect shifted across geography, time, or stakeholder groups, often outside the immediate boundary of the project.

Disposal of assets is the process of getting rid of an item, which has reached the end of its useful life. This includes everything from consumer electronics to public infrastructure, such as roads and bridges. Generally, assets should not be disposed of until they are no longer fit for use. Includes hazardous waste, electronic waste (e-waste), and materials requiring controlled end-of-life handling.

Disposal of goods and materials is the practice of getting rid of items that are no longer needed or wanted for the project. This includes disposing of both hazardous and nonhazardous waste in accordance with relevant laws and regulations.

Double materiality considers both how sustainability issues affect organizational performance (outside-in) and how organizational activities affect environmental and social systems (inside-out).

Employment and staffing are processes for obtaining the personnel needed to carry out the project. This includes identifying the skills required for successful completion of the project, recruiting potential individuals (internally or externally), managing their time and performance, training them when needed, and compensating them accordingly.

Energy consumption is the amount of energy used by the project throughout its duration. It encompasses all aspects of energy use from office lighting to the energy required for transportation.

Equal opportunity is the practice of providing individuals with access to jobs, opportunities, and responsibilities based on their qualifications regardless of gender, race, age, or other characteristics. It seeks to eliminate any type of discrimination in the workplace and to ensure that all team members are treated fairly and given an equal chance to participate in an appropriate way.

Escalation trigger is a predefined condition, often linked to thresholds or materiality, that requires review, intervention, or governance action.

ESG disclosures are information about an organization's performance and practices related to environmental, social, and governance issues. Information from the project is used as input to the ESG disclosures of the sponsoring organization(s).

Fair competition is the practice of ensuring that all parties wanting to provide products or services to the project have an equal opportunity to compete and win. It requires taking measures to ensure that no individual party has an unfair advantage due to size, wealth, influence, or any other factor. This includes enforcing laws and regulations against anticompetitive behavior such as price-fixing and market manipulation. Additionally, fair competition calls for creating transparent processes for bidding and contract awards to ensure fair opportunities for businesses of all sizes and types.

Financial analysis is the process of evaluating the project from a monetary perspective. Typically, it is used to analyze whether the project warrants initial or additional funding.

Flexibility is the ability to adjust to changing circumstances or situations. It requires the capacity to modify plans or approaches when faced with unexpected challenges.

Forced and involuntary labor means any work or service that is extracted from a person under the menace of punitive action against themselves or their families. This includes work where the payment is below subsistence levels, or where the payment is in goods that are not desirable. Forced and involuntary labor can take many forms, including human trafficking, debt bondage, enslavement, and unjustly long working hours.

Green claims are statements made by an organization to indicate that a product or service has been designed and produced in a manner that is considered environmentally responsible. These claims typically relate to the organization's efforts to reduce its environmental impact, such as using recycled materials, renewable energy sources, and efficient production processes.

Green Project Management see *Sustainable Project Management™*.

Greenhouse gas (GHG) emissions are gases (mostly carbon dioxide and methane) released into the atmosphere as a direct result of activities associated with the project. This includes emissions as a direct result of project energy consumption as well as emissions from transport of procured goods, raw materials, and services. It also includes GHG emissions caused by the distribution, operation, and disposal of the project product.

Greenwashing is the practice of making false or misleading claims to convince consumers that a product or service is more environmentally friendly than it actually is. This can be done through deceptive language, exaggerations, or omitting relevant information about an organization's true environmental practices.

Harassment and discrimination involve the measures adopted to ensure a safe, respectful, and nondiscriminatory workplace environment. This includes developing policies that protect employees from unjust treatment, creating an inclusive environment, implementing effective reporting procedures for instances of inappropriate behavior, and providing sufficient training for management on how to handle such issues.

Impact threshold is a defined limit or condition that, when approached or exceeded, triggers review, escalation, or corrective action due to unacceptable environmental, social, or economic impact.

Impact pathway describes the causal chain between an activity and its resulting environmental, social, or economic effect.

Indirect benefits are the positive impacts that go beyond the immediate outcomes of the project and may not always be immediately visible. These benefits can include improved quality of life, increased economic activity in the local area, and environmental improvements, such as cleaner air or water.

Irreversibility refers to a condition where damage to a system cannot be restored to baseline within a reasonable timeframe or without disproportionate intervention.

Labor/management relations in the project context means building trust, understanding, and cooperation among project and other managers, organizational staff, and project team members. It involves respecting each other's opinions, resolving conflicts proactively, communicating clearly, and ensuring that everyone is aware of their roles and responsibilities.

Local competence development is the process of fostering and expanding skills, knowledge, and expertise in the localities in which the project operates. It can involve providing training or education to local individuals, as well as encouraging collaboration and the sharing of resources between the project organization and local organizations or local individuals.

Local economic impact includes the direct and indirect effects the project has on the economy of its local area. This can include job creation, increased spending in the local economy, or increased regional development.

Local procurement is the practice of purchasing products and services from local suppliers.

Logistics is the planning and execution of activities related to transporting goods, raw materials, and services for use by the project. Logistics include activities such as scheduling transportation, estimating costs, coordinating personnel, and making sure that all necessary procedures are completed on time.

Life cycle is the series of phases that represent the evolution of work from initiation through completion and transition to ongoing operations or outcomes. Life cycles provide a structured way to organize, manage, and evaluate work, and may be predictive, adaptive, or hybrid depending on the context.

Life cycle boundary defines the temporal and operational limits within which impacts are assessed, including upstream and downstream effects.

Materiality refers to issues significant enough to affect decision-making, risk exposure, stakeholder confidence, or long-term value.

Material impact is an effect of sufficient magnitude, likelihood, or proximity to thresholds to influence decision-making or governance response.

Mitigation is the reduction of negative impact through actions that limit severity, likelihood, or duration of harm.

Modeling is the creation of a physical, mathematical, or logical representation of the project using representative characteristics of the project.

Net-positive describes a condition where positive impacts exceed negative impacts within a defined system boundary and time horizon.

Noise pollution is the creation of excessive, unpleasant, or disruptive sounds that can diminish quality of life. Noise pollution can be caused by activities such as blasting, heavy vehicle traffic, traffic jams, and operation of machinery or equipment.

No masking rule is the principle that severe negative impact in one domain cannot be offset or concealed by positive performance in another domain.

Optionality is the deliberate preservation of viable future choices within project design to enable adaptation to changing conditions without disproportionate cost or disruption.

Organizational learning is a form of knowledge management in which organizational components and individual employees are encouraged to capture, share, and apply their knowledge. This enables the organization to adapt and improve its processes, products, and services over time.

Product and service labeling includes procedures used to ensure that goods and services are accurately labeled according to legal and ethical standards. This includes properly disclosing potential risks, hazards, and side effects associated with the use of products and services as well as providing appropriate information about the origins of these products and services.

Program is a set of interrelated projects and activities.

Program management is the application of knowledge, skills, tools, and techniques to planning, organizing, directing, leading, and controlling a program. It involves coordinating the work of the program to deliver benefits that could not be achieved by managing the work separately.

Project. A temporary initiative in a unique context undertaken to create value.

Project health and safety is the practice of creating safe working conditions for personnel involved in the project. It involves implementing measures, such as hazard assessment, risk management, training, enforcement, and investigation. Its main goal is to ensure that workers are not exposed to any unnecessary risks while performing their work.

Project management is the application of knowledge, skills, tools, and techniques to planning, organizing, directing, leading, and controlling a project to maximize the chances of meeting success criteria. See also *Green Project Management.*

Project portfolio is a collection of projects and programs that an organization has undertaken or plans to undertake. It represents the overall investment of time, resources, and money in various initiatives aimed at achieving specific objectives.

Project portfolio management is an approach to managing a portfolio in a coordinated way. It involves identifying, prioritizing, and selecting the best projects or programs to undertake based on their alignment with the organization's goals and objectives.

Protection for indigenous and tribal peoples includes the measures taken to ensure the rights and well-being of affected populations over the course of the project. This includes protection of their culture, land use rights, language, religion, and other forms of recognition.

Public policy and compliance include the steps taken by the project team to ensure that the project complies with all relevant laws and regulations. This involves researching relevant laws and regulations, understanding their implications for the project, and taking necessary steps to make sure these laws and regulations are respected throughout the project’s duration.

Recycling involves transforming a waste item into a useful one. Items that can be recycled run the gamut from plastic water bottles to computers to electrical generators.

Regeneration is the measurable enhancement of system capacity beyond baseline conditions, resulting in improved ecological, social, or economic resilience over time.

Regenerative design is a practice that draws on an understanding of how ecosystems function so that the project will regenerate resources rather than depleting them.

Regenerative development is an approach to sustainable development that goes beyond minimizing harm and tries to actively restore and renew natural systems. It seeks to create self-sustaining communities that generate more resources than they consume and to thereby enhance the well-being of all living things.

Renewable energy, also called alternative energy, is energy generated from sources that are replenished at a faster rate than they are consumed. These sources include solar, wind, water, and geothermal power.

Resilience is the capacity of a system to absorb disruption, adapt to change, and maintain functional integrity without loss of long-term capability.

Responsible technology is the practice of accounting for ethical, legal, and social implications when running projects that involve new or emerging technologies. This includes developing and adhering to frameworks and policies related to data privacy, intellectual property rights, environmental impact, diversity, and inclusion. Responsible technology also requires ensuring that technology is used in a safe and responsible manner.

Restoration is the process of returning an environmental, social, or economic system to its documented baseline condition following degradation.

Reuse involves using the same item again or finding a new purpose for it.

Simulation is the use of a model to understand the potential effects of alternative conditions and choices given uncertainty in the input variables. It can be especially useful in the project context where project characteristics often interact in unpredictable ways.

Social return on investment (SROI) is a framework for measuring and accounting for project results and outcomes by including social and environmental costs and benefits along with the traditional economic ones. It is based on the idea that projects create value in ways other than just financial returns. For example, a community development project may create value by improving the health and well-being of residents, reducing crime, and increasing social cohesion.

Soil erosion is the loss of topsoil due to human activities such as construction, road building, or agricultural practices. It can be exacerbated by changes in the natural land cover and can have significant negative effects on local ecosystems. As with water displacement, soil erosion is mostly an issue with construction, manufacturing, and agricultural projects.

Stop condition is a defined circumstance under which work must pause or cease due to unacceptable impact or threshold exceedance.

Stranded asset is an asset that loses economic value prematurely due to regulatory change, environmental constraints, market shifts, or technological disruption.

Structural dependency occurs when a system becomes reliant on external inputs or actors in a way that reduces its long-term self-sufficiency and resilience.

Sustainability is the ability of systems to maintain function and capacity over time without degrading the environmental, social, or economic conditions upon which they depend.

Sustainability reporting provides information about an organization's policies, practices, and performance related to sustainability. It covers a wide range of topics, such as energy efficiency, carbon emissions, resource conservation, human rights, labor practices, and community engagement. Information from the project is used as input to the sustainability reporting of the sponsoring organization(s).

Sustainable development is an approach to economic growth and development that seeks to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. It aims to balance environmental, social, and economic concerns to achieve a healthy and prosperous society that can continue.

Sustainable procurement practices and contracts include means of obtaining goods, raw materials, and services that consider environmental, economic, and social impacts. This means contracting resources in an ethical manner and requires establishing agreements, which adhere to environmental, social, and human rights standards.

Sustainable project is characterized by its ability to create long-term value for its stakeholders while minimizing negative impacts on the environment and society.

Sustainable Project Management™ is a unique PMI and GPM approach to applying sustainability principles within project governance, planning, and delivery as part of professional development in project management.

System capacity is the ability of an environmental, social, or economic system to sustain function, absorb disruption, and adapt over time without degradation.

Talent acquisition, retention, and empowerment make up the commitment to attracting, developing, and retaining needed talent while fostering a workplace that adapts to evolving needs, encourages collaboration, and provides access to growth opportunities.

Training and qualification make up the process of ensuring that project team members have the necessary skills to effectively complete their work. This involves providing instruction, assessing proficiency, monitoring performance, and offering guidance.

Transition risk refers to financial or operational risk arising from the shift toward lower-impact or regulated economic systems, including policy, market, or technology changes.

Traveling and commuting include the movement of project-related personnel between different locations. Traveling and commuting may include getting to the project site, attending off-site meetings, conducting off-site presentations, collecting data, and providing off-site support

Value chain is the full range of activities, relationships, and entities involved in creating, delivering, using, and disposing of a product or service, including upstream and downstream impacts for which the organization may be directly or indirectly responsible.

Waste generation is the creation of any excess or unneeded materials or byproducts during the project. This includes everything from leftover supplies and materials to wasted energy.

Water consumption is the usage of water during project activities. Although construction, manufacturing, and agricultural projects are probably the major users of water, all projects use water to some extent.

Water displacement is the practice of diverting water sources that have been disrupted by the project away from areas that are prone to flooding and contamination. Methods include dam construction, rerouting flowing water, building artificial wetlands, landscaping with rain gardens, and installing flood barriers. Water displacement is mostly an issue with construction, manufacturing, and agricultural projects.

Work-life harmony and mental health refer to the ability of individuals to strike a balance between their professional goals and commitments within their personal lives. This involves taking regular breaks from work, developing healthy work habits, and engaging in activities that bring a sense of joy and contentment.

Annex 4. External Framework Crosswalk: From Alignment to Structural Legitimacy

Previous versions of the P5 Standard included a dedicated mapping to the United Nations Sustainable Development Goals (SDGs). That alignment demonstrated that project-level sustainability impacts contribute to global development priorities.

Version 4.0 goes further.

Rather than limiting alignment to aspirational goals, P5 now provides a comprehensive crosswalk to:

- U.N. Sustainable Development Goals (SDGs)
- Global Reporting Initiative (GRI) Standards
- Task Force on Climate-related Financial Disclosures (TCFD)
- International Sustainability Standards Board (ISSB – IFRS S1 and S2)

Our Logic

Sustainability is governed, disclosed, audited, and increasingly regulated. Organizations are now expected to demonstrate:

- How impacts are identified and managed
- How material risks and opportunities are governed
- How climate exposure is measured and disclosed
- How sustainability performance contributes to enterprise value

Any sustainability framework that cannot demonstrate structural relevance to this ecosystem risks remaining academic. P5 does not operate in isolation from the global sustainability architecture. It operates inside it.

The crosswalk confirms that:

- Every P5 element connects to globally recognized sustainability topics.
- Project-level impact identification supports enterprise-level reporting.
- Sustainability integration at the project level contributes directly to formal disclosure regimes.

From Concept to System

Many sustainability approaches focus on awareness, categorization, or high-level principles. They describe sustainability. They classify sustainability. They visualize sustainability.

P5 structures sustainability.

By mapping each element to SDGs, GRI, TCFD, and ISSB, Version 4.0 makes explicit what responsible organizations already understand: sustainability in projects must withstand external scrutiny.

If a standard cannot demonstrate relevance to the global disclosure system, it remains conceptual.

P5 demonstrates:

- Impact domains are structured, not thematic.
- Governance is embedded, not treated as a separate impact category.
- Regenerative progression is defined, not implied.
- Project-level sustainability decisions scale to portfolio and enterprise-level reporting.

Legitimacy through Structural Relevance

Legitimacy in sustainability is no longer earned through terminology. It is earned through traceability.

The crosswalk provides that traceability.

It shows that:

- P5 supports impact-based reporting (GRI).
- P5 supports climate-related financial disclosure (TCFD, ISSB S2).
- P5 supports enterprise-value sustainability disclosure (ISSB S1).
- P5 aligns with global development priorities (SDGs).

This is not a defensive addition. It is a formal statement that P5 is built for the current sustainability environment—one defined by transparency, accountability, and measurable impact.

Sustainability in projects is not a philosophical exercise.
It is a governance responsibility.

Version 4.0 reflects that reality.

Social Crosswalk Table

Domain	Subcategory	Element	SDGs	GRI	TCFD	ISSB
People	Labor Practices & Decent Work	Employment and Staffing	SDG 8, SDG 10 (per P5)	GRI 401, 402, 404	N/A	S1 (if material)
People	Labor Practices & Decent Work	Labor/ Management Relations	SDG 8, SDG 16 (per P5)	GRI 402	N/A	S1 (if material)
People	Labor Practices & Decent Work	Project Health and Safety	SDG 3, SDG 8	GRI 403	N/A	S1 (if material)
People	Labor Practices & Decent Work	Training and Qualification	SDG 4, SDG 8	GRI 404	N/A	S1 (if material)

People	Labor Practices & Decent Work	Organizational Learning	SDG 4, SDG 9	GRI 404 (and/or 2-17 capacity)	N/A	S1 (if material)
People	Labor Practices & Decent Work	Equal Opportunity	SDG 5, SDG 10	GRI 405, 406	N/A	S1 (if material)
People	Labor Practices & Decent Work	Local Competence Development	SDG 4, SDG 8	GRI 404, 202	N/A	S1 (if material)
People	Labor Practices & Decent Work	Work-Life Harmony and Mental Health	SDG 3, SDG 8	GRI 403 (as applicable), 404	N/A	S1 (if material)
People	Society and Customers	Community Engagement	SDG 11, SDG 16	GRI 413	N/A	S1 (if material)
People	Society and Customers	Public Policy and Compliance	SDG 16	GRI 2-27, 415	N/A	S1 (if material)
People	Society and Customers	Protection for Indigenous and Tribal Peoples	SDG 10, SDG 16	GRI 411	N/A	S1 (if material)
People	Society and Customers	Customer Health and Safety	SDG 3	GRI 416	N/A	S1 (if material)
People	Society and Customers	Product and Service Labeling	SDG 12	GRI 417	N/A	S1 (if material)
People	Society and Customers	Customer Privacy and Data Protection	SDG 16, SDG 9	GRI 418	N/A	S1 (if material)
People	Human Rights	Harassment and Discrimination	SDG 5, SDG 10	GRI 406, 405	N/A	S1 (if material)
People	Human Rights	Age-Appropriate Labor	SDG 8	GRI 408	N/A	S1 (if material)
People	Human Rights	Forced and Involuntary Labor	SDG 8, SDG 16	GRI 409	N/A	S1 (if material)

People	Human Rights	Talent Acquisition, Retention, and Empowerment	SDG 8, SDG 10	GRI 401, 404, 405	N/A	S1 (if material)
People	Ethical Behavior	Sustainable Procurement Practices and Contracts	SDG 12	GRI 204, 308, 414	N/A	S1 (if material)
People	Ethical Behavior	Anti-Corruption	SDG 16	GRI 205	N/A	S1 (governance /controls)
People	Ethical Behavior	Fair Competition	SDG 16	GRI 206	N/A	S1 (governance /controls)
People	Ethical Behavior	Responsible Technology	SDG 9, SDG 16	GRI 418 (privacy), 2-25/2-26 mechanisms	N/A	S1 (if material)
People	Ethical Behavior	Green Claims and Greenwashing	SDG 12, SDG 16	GRI 417 (labeling/claims), 2-27	N/A	S1 (if material)

Planet Crosswalk Table

Domain	Subcategory	Element	SDGs	GRI	TCFD	ISSB
Planet	Transport	Local Procurement	SDG 12, SDG 13	GRI 204, 308, 414	Risk (if climate supply risk)	S1 (if material)
Planet	Transport	Digital Communication	SDG 9, SDG 13	(Often N/A topic-specific; may reference Energy)	N/A	S1 (if material)
Planet	Transport	Traveling and Commuting	SDG 13	GRI 305	Monitoring & Tracking	S2 (if emissions material)
Planet	Transport	Logistics	SDG 13, SDG 12	GRI 305, 308	Monitoring & Tracking/Risk	S2 (if emissions material)
Planet	Energy	Energy Consumption	SDG 7, SDG 13	GRI 302	Monitoring & Tracking	S2
Planet	Energy	Greenhouse Gas Emissions	SDG 13	GRI 305	Monitoring & Tracking/Strategy/Risk	S2
Planet	Energy	Renewables and Clean Energy Return	SDG 7, SDG 13	GRI 302, 305	Strategy/Monitoring & Tracking	S2
Planet	Land, Air, and Water	Biological Diversity	SDG 15, SDG 14	GRI 304	N/A	S1 (if financially material)
Planet	Land, Air, and Water	Air and Water Quality	SDG 6, SDG 3	GRI 303, 305	N/A	S1 (if material)
Planet	Land, Air, and Water	Water Consumption	SDG 6	GRI 303	N/A	S1 (if material)

Planet	Land, Air, and Water	Water Displacement	SDG 6, SDG 11	GRI 303	N/A	S1 (if material)
Planet	Land, Air, and Water	Soil Stability and Erosion	SDG 15, SDG 2	GRI 304 (as applicable)	N/A	S1 (if material)
Planet	Land, Air, and Water	Ecological Regeneration	SDG 15, SDG 13	GRI 304	Strategy (if climate resilience)	S1 / S2 (context-dependent)
Planet	Land, Air, and Water	Noise Pollution	SDG 3, SDG 11	(No direct GRI topic standard; may be local impacts under 413/health)	N/A	S1 (if material)
Planet	Consumption	Recycling and Reuse	SDG 12	GRI 306, 301	N/A	S1 (if material)
Planet	Consumption	Disposal	SDG 12	GRI 306	N/A	S1 (if material)
Planet	Consumption	Contamination and Pollution	SDG 6, SDG 14, SDG 15	GRI 303, 306 (and sector-specific)	N/A	S1 (if material)
Planet	Consumption	Waste Generation	SDG 12	GRI 306	N/A	S1 (if material)

Prosperity Crosswalk Table

Domain	Subcategory	Element	SDGs	GRI	TCFD	ISSB
Prosperity	Project Feasibility	Business Case Analysis	SDG 8, SDG 12	GRI 3 (material topics process alignment), 2-22	Strategy	S1
Prosperity	Project Feasibility	Financial Analysis	SDG 8	(Typically outside GRI Topic Standards)	Strategy	S1
Prosperity	Project Feasibility	Social Return on Investment	SDG 8, SDG 10	GRI 203, 413 (context-dependent)	N/A	S1 (if material)
Prosperity	Project Feasibility	Modeling and Simulation	SDG 9, SDG 13	(Context-dependent)	Strategy/Risk	S2 (if climate scenarios)
Prosperity	Adaptive Governance	Adaptive Materiality	SDG 16	GRI 3	Governance/Strategy	S1
Prosperity	Adaptive Governance	Design Optionality	SDG 9, SDG 13	(Context-dependent)	Strategy/Risk	S2 (if climate transition/physical risk)
Prosperity	Adaptive Governance	System Resilience	SDG 9, SDG 13	GRI 3 (risk/impacts framing)	Strategy/Risk	S2 (if climate resilience) + S1

Prosperity	Market & Economic Stimulation	Economic Regeneration	SDG 8, SDG 11	GRI 203, 201	N/A	S1 (if material)
Prosperity	Market & Economic Stimulation	Indirect Benefits	SDG 8, SDG 1	GRI 203	N/A	S1 (if material)
Prosperity	Market & Economic Stimulation	ESG Disclosures and Sustainability Reporting	SDG 12, SDG 16	GRI 1/2/3 (universal)	Governance/MONITORING AND TRACKING	S1/S2

Version Control			
Version	**Date Approved**	**Approved by**	**Summary of Changes**
1.0		**Joel Carboni**	• Initial release
1.5		**Joel Carboni**	• Numerous updates; detail not recorded
2.0	**Sept 2019**	**Joel Carboni**	• Reformatted to match new GPM standard • Edited for consistency of terminology and presentation • Added two elements under Planet category • Restructured and renamed Business Case Analysis • Incorporated revised Sustainability Management Plan and P5IA templates • Added numerous examples of suggested project team actions and sustainable outcomes
2.0.1	**February 2020**	**W.R. Duncan**	• Fixed two SDG callouts with wrong SDG icon
2.0.2	**February 2020**	**Joel Carboni**	• Fixed pagination and several minor inconsistencies in references to P5 categories
3.0	**February 2023**	**Joel Carboni**	• Updated ontology with several new elements • Changed product and process elements to lenses • Modified some subcategory and element names to more accurately reflect contents • Added definitions for all elements • Significantly expanded guidance in most element descriptions • Added glossary
3.0.1	**July 2024**	**W.R. Duncan**	• Fixed references to SDG 3, Target d that referenced c
3.1	**February 2025**	**W.R. Duncan**	• Changed DDEI to TARE • Replaced several figures with new versions from SPM3 The Course • Added legend to SDG cross-reference in Annex 4
4.0	**February 2026**	**Joel Carboni**	• Complete rewrite

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