Integrated Management System (IMS) Manual: Parkworth Infrastructure Engineering Company Uganda Limited

ISO-Aligned IMS Manual for Parkworth Infrastructure Engineering Company

PARKWORTH INFRASTRUCTURE ENGINEERING COMPANY UGANDA LIMITED

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Executive Summary

Integrated Management System (IMS) Manual *ISO 9001 | ISO 14001 | ISO 45001*

Parkworth Infrastructure Engineering Company Uganda Limited is a multidisciplinary construction firm operating across East Africa, specializing in roads, bridges, buildings, and water infrastructure. This IMS Manual integrates quality, environmental, and occupational health & safety standards across all operations, aligned with ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018.

Scope & Objectives: The IMS applies to all departments and project sites. Strategic goals include reducing CO_2 emissions by 20%, achieving zero lost-time injuries, sourcing 60% of materials locally, and delivering 100% of projects on time.

Leadership & Governance: Senior management leads IMS implementation through clear policies, resource allocation, and stakeholder engagement. Key roles include IMS Manager, Safety Officer, Environmental Officer, and Procurement Lead.

Sustainability & Risk Management: Parkworth's Sustainability Action Plan targets waste reduction, carbon tracking, water conservation, biodiversity protection, and ethical procurement. A dynamic risk register and SWOT/PESTEL analyses guide strategic planning.

Contractor Oversight: A robust framework ensures supplier compliance through ESG screening, performance scorecards, and corrective action protocols.

Monitoring & Improvement: IMS performance is tracked via KPIs, audits, and stakeholder feedback. Continuous improvement is driven by lessons learned, innovation, and benchmarking.

This manual reflects Parkworth's commitment to excellence, sustainability, and community impact across East Africa's infrastructure landscape.

Introduction

Establishing a robust, compliant, and future-focused Integrated Management System (IMS) is essential for Parkworth Infrastructure Engineering Company Uganda Limited (hereafter Parkworth), a leader in delivering roads, bridges, buildings, and water infrastructure across East Africa. With expanding operations, complex regulatory challenges, and growing expectations around sustainability, risk management, and health and safety, Parkworth's IMS must align with the harmonized requirements of ISO 9001:2015 (Quality Management), ISO 14001:2015 (Environmental Management), and ISO 45001:2018 (Occupational Health and Safety). Critically, this manual organizes content around ISO Clauses 4–10 and is tailored to reflect Parkworth's unique context, operations, stakeholders, and regulatory landscape—including Ugandan laws (NEMA, OSHA Uganda, PPDA), and relevant international guidelines (World Bank, IFC)2.

This manual is intended as a living document: it should underpin continual improvement, effective stakeholder engagement, operational excellence, and compliance, as well as form the core reference for audits, training programs, and strategic management reviews

1) Context of the Organization

1.1 Understanding Parkworth's Internal and External Context

An accurate appraisal of internal and external context is foundational for an effective IMS57. Parkworth is a private, limited liability company registered in Uganda in 2021. With operational footprints in Uganda and across the East African region, it delivers a suite of public and private sector projects—including highways, urban and rural roads, bridges, buildings, and water/sanitation systems. Its internal departments include Engineering, Procurement, HR, and Finance. Key project and operational personnel include Project Managers, Site Engineers, Safety Officers, EHS and Quality staff, contract managers, and support staff.

Externally, Parkworth operates in a highly regulated, competitive construction market marked by government-led development initiatives, rapid urbanization, a young population, environmental pressures, and macroeconomic fluctuations.

Internal Issues

- Organizational Structure: Clear matrix between project sites and headquarters; defined roles (project/department heads, EHS, quality, procurement, finance).
- Documented Management Practices: Formal procedures for procurement, EHS, risk, training, and audits.
- Competence and Culture: Emphasis on multi-skilling, innovation, safety, teamwork, and ethical practices.
- Resource Constraints: Occasional gaps in local skilled labor and equipment availability; seasonality in project load.
- Process Maturity: Progressing toward digitalization; use of risk registers, supplier databases, and project management software.

External Issues

- Regulatory Environment: Strong compliance requirements (e.g., NEMA's waste management/by-laws, OSHA 2006, PPDA procurement rules).
- Sector Trends: Emphasis on sustainability, climate adaptation, and circular economy practices. Increasing client and financier requirements to reduce CO_2 and adopt green construction materials10.
- Market Competition: Both local and regional construction firms operate; rivalry is intense, especially around large infrastructure contracts and donor-funded projects.
- Political/Economic Fluctuations: Project funding and demand are sensitive to public sector budget cycles, regulatory delays, inflation, and foreign exchange risks.
- Technological Advances: Digital project management, BIM, ISSBs, lightweight steel, and eco-designs are competitive differentiators.

- **Environmental Pressures**: Construction impacts on waste, water, emissions, and community health are under increasing scrutiny by authorities, clients, and civil society.
- **Community Assessments**: Parkworth must proactively manage social impacts—gender/diversity, local content/performance, and indigenous/host community interests.

Climate Change Considerations

As required under recent ISO amendments, Parkworth has determined that both climate change adaptation and mitigation are highly relevant to its business model, risk management, and stakeholder expectations11. This is reflected throughout this IMS manual, notably in planning, operational controls, and stakeholder engagement.

1.2 Needs and Expectations of Interested Parties (Stakeholders)

Parkworth has mapped its key internal and external stakeholders and their current/future needs, as below:

Stakeholder	Needs/Expectations	Relevance to IMS/ISO Clauses
Clients/Donors (e.g., World Bank, Ministry of Works)	Quality, compliance, on-time delivery, cost, sustainability, health & safety	5, 8, 9
Government Regulators (e.g., NEMA, PPDA, OSHA)	Legal compliance, reporting, audits, prompt remediation, pollution control	5, 6, 7, 8, 9
Employees/Contract Staff	Safe workplaces, fair pay, skills development, inclusivity, participation	5, 7, 9, 10
Subcontractors/Suppliers	Transparent procurement, fair contracts, timely payment, safety standards	7, 8, 10
Local Communities	Job creation, safety, environmental protection, grievance mechanisms	5, 7, 8, 9, 10
Shareholders/Investors	Business continuity, growth, risk control, ethical practice	4, 5, 9, 10
Town Councils/KCCA	Social/environmental compliance, traffic management, community engagement	6, 7, 8, 9
International Standards Bodies	Adoption of best practices, transparency, climate reporting	4, 5, 6, 7, 8, 9, 10

Climate-related requirements are increasingly specified by stakeholders (regulatory, clients, donors) and must be addressed directly in IMS objectives and controls.

1.3 Scope of the IMS

Parkworth's IMS covers all offices, project sites, departments, and support functions engaged in the planning, design, procurement, construction, and maintenance of roads, bridges, buildings, and water infrastructure across Uganda and extendable to projects elsewhere in East Africa. All products, services, and operations (including those of subcontractors and suppliers) are within scope, unless specifically justified otherwise.

1.4 Processes of the IMS and Their Interaction

The IMS is process-based and interacts across the following main domains:

- Management Review & Leadership
- Risk and Opportunity Management
- Project Planning and Design
- Procurement & Contract Management
- Construction and Site Operations
- Environmental and Safety Management
- Stakeholder Engagement and Communication
- Performance Evaluation, Audits, and Improvement

Each process is mapped with clear inputs, outputs, responsibilities, and documented controls. The IMS follows the PDCA (Plan-Do-Check-Act) cycle to underpin continual improvement3.

2) Leadership and Commitment

2.1 Leadership and Commitment

Top Management's Responsibilities:

- Take accountability for IMS effectiveness and alignment with the organization's strategic direction13.
- Demonstrate commitment by ensuring integration of IMS requirements into business strategy and processes.
- Ensure resources and support for meeting IMS objectives and legal requirements.
- Promote a culture of quality, environmental stewardship, and occupational health and safety at all organizational levels.
- Engage and consult staff, contractors, and stakeholders in developing, implementing, and improving the IMS.
- Promote process-based and risk-based approaches and drive continual improvement.
- Address climate change–related objectives and stakeholder requirements, as now mandated by ISO standards.

Leadership is also directly involved in periodic management reviews, setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) objectives, and responding to major risks or incidents.

2.2 IMS Policy

Parkworth declares its commitment to:

- Delivering safe, high-quality, and sustainable infrastructure that consistently meets client and community needs.
- Preventing injury and ill health to all personnel and affected parties.
- Compliance with all applicable laws, standards, and client/financier requirements.
- Minimize environmental impacts, promote resource efficiency, and support climate resilience.
- Provide adequate resources, training, and leadership at all levels.
- Engage in meaningful consultation with all interested parties.
- Continual improvement of the IMS and its components.

Policy is documented, communicated, displayed at sites, and shared with external stakeholders upon request.

2.3 Organizational Roles, Responsibilities, and Authorities

Key roles include:

Role	Main IMS Responsibilities
Managing Director	Ultimate IMS accountability, sets direction, approves objectives and policies
IMS/QHSE Manager	Maintains and coordinates IMS, reports on performance, reviews non-conformities, manages audits
Project Managers	Ensure IMS implementation at project level, risk register upkeep, stakeholder communication
Safety Officer/EHS	Site inspections, accident/incident reporting, legal compliance, environmental monitoring
Site Engineers	Compliance with quality/contract/specs, implementation of controls, supervision of subcontractors
Procurement Manager	Supplier due diligence, contractual integration of IMS clauses, monitoring subcontractors
HR/Training Manager	Competence/training programs, induction, annual skills assessment
Supervisors	Daily IMS compliance, toolbox talks, reporting incidents/nonconformities
Employees/Labour	Follow IMS procedures, report hazards, participate in training

Authorities and accountabilities are assigned in the IMS roles and responsibilities matrix, and responsibilities are communicated through procedure documents, organization charts, and job descriptions.

3) Planning

3.1 Actions to Address Risks and Opportunities

Comprehensive risk and opportunity planning is central to IMS effectiveness and to delivering value for all stakeholders in volatile and complex operating conditions16.

3.1.1 Contextual Risk/Opportunity Appraisal

- Internal risks: resource gaps, skills shortages, procedural weaknesses, IT disruptions.
- External risks: regulatory changes (NEMA/OSHA/PPDA), inflation, climate hazards, supply chain disruptions.
- Opportunities: adopting green construction materials, local supplier development, digital innovation, workforce upskilling, new client sectors, climate adaptation funding.
- Legal compliance: Ongoing monitoring of local/international laws and standards affecting quality, environment, and safety.

3.1.2 Identification of Environmental Aspects and OH&S Hazards

- Environmental aspects: Waste generation (concrete, plastics), air/noise emissions, water use/discharge, biodiversity impacts, potential for land contamination.
- Safety hazards: Working at heights, equipment/mechanical hazards, hazardous chemicals, electrocution, excavation collapses, traffic incidents, security risks at sites.

Systematic registers and impact assessment methodologies are used for identification, significance evaluation, and review, consistent with life-cycle thinking (ISO 14001), hazard identification (ISO 45001), and best practices1.

3.1.3 Evaluation of Compliance Obligations

- Maintain a legal and other requirements register covering Ugandan national law, regional by-laws, donor/financier requirements (World Bank/IFC EHS), and client contracts.
- Regularly review and update the compliance register.

3.2 IMS Objectives and Planning to Achieve Them

SMART Objective Setting is a cornerstone of the IMS. Each domain (Quality, Environment, Occupational Health & Safety) maintains monitored objectives, which are cascaded to project/department level:

Domain	Example SMART Objectives (2025/26)
Quality	Achieve ≤2% internal non-conformance rate in audits per quarter; 95% on-time completion of projects; implement digital project tracking by Q4 2025
Environment	Reduce on-site general waste to landfill by 30% by Dec 2026; increase recycled material use by 20%; implement ISSB or low-carbon materials in 40% of projects by Dec 2026
Safety	Maintain lost-time injury frequency rate (LTIFR) ≤1.5 per million hours; conduct monthly safety toolbox talks on all sites; 100% incident reporting within 24 hours

Objectives are reviewed quarterly and progress reported to management review meetings.

3.3 Planning of Changes

Any significant organizational, project, contract, legal, technological, or business model changes are planned with appropriate risk assessment, stakeholder consultation, and documentation. IMS process updates are subject to change controls, communication, and, where necessary, retraining of affected personnel.

SWOT Analysis (Construction Sector, Regional Specific)

Strengths

- Regional presence with deep local expertise
- Multi-disciplinary project teams
- Committed to safety, quality, and sustainability
- Established legal and compliance frameworks
- Good relationships with local authorities and supply chains

Weaknesses

- Exposure to supply chain/francophone region volatility
- Skills/training gaps in emerging construction technologies
- Occasional project delays due to regulatory approvals
- Dependence on public sector contracts (fiscal shocks)
- Manual processes in procurement, some silos across functional teams
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Opportunities

- Strong pipeline of government/donor-funded infrastructure projects
- Adoption of green, low-carbon building systems (e.g., ISSB, strawboard panels)
- Workforce development (local skills, youth, and gender inclusion)
- Expanding digital transformation, BIM adoption
- Local supplier partnerships, regional export potential

Threats

- Escalating construction material and labor costs
- Disruptive regulatory or fiscal policy changes
- Currency and inflation volatility
- Project funding delays/postponements by donors
- Natural disasters, adverse climate events

PESTEL Analysis (Uganda/East African Construction Sector)

Factor	Implications for Parkworth
Political	Policy stability vital; public works funding; procurement regulations/PPDA; political risk during elections/logistics disruptions.
Economic	Growth is robust, but exposed to inflation, FX risks, and emerging credit constraints. FDI in construction rising.
Social	Rapid urbanization, population growth, youth unemployment—demand for infrastructure up, need for inclusive hiring.
Technological	Digital construction tools, eco-materials, off-site components, smart procurement becoming differentiators.
Environmental	Increasing legal pressure for environmental assessments, carbon reporting, pollution controls (NEMA, EIA, IFC standards).
Legal	NEMA, OSH (Occupational Safety & Health Act), PPDA, procurement reform—stringent and enforced.

4) Support

4.1 Resources

Resourcing Principles:

- Personnel: Sufficient skilled staff at all departments/sites. Key skills mapped to project needs, with gaps filled by hiring, training, or subcontracting.
- Infrastructure: Adequate office and site facilities, maintained as per schedule (lighting, sanitation, safety equipment).

- Equipment: Machinery and tools on preventive maintenance; certifications for regulated plant (boilers, lifts) as per OSHA.
- IT and Systems: Secure, cloud-based document management, risk registers, supplier databases.
- Financial: Resource/budget allocation aligned to IMS objectives (safety, quality, sustainability investments).
- Environmental: Green procurement/machines where feasible, internal recycling infrastructure.

4.2 Competence

Parkworth's annual competence management process covers all employees and key contractor staff—ahead of onboarding, new roles, and periodically as part of performance review and legal compliance (e.g., OSHA, NEMA, client contracts)14.

- Competency Matrix: Role-based, covering education, technical/operations knowledge, QHSE awareness, legal/compliance training.
- Training Programs: Regular IMS induction, job-specific technical skills, safety toolbox sessions, refresher courses, and targeted upskilling on emerging risks/tech (e.g., climate resilient designs, digital tools).

4.3 Awareness

- All staff are briefed on the IMS policy and relevant objectives, their IMS roles/responsibilities, environmental aspects, OH&S hazards, reporting pathways, and implications of non-conformance.
- Tailored awareness programs highlight: incident reporting, emergency response, site risks, safe work methods, sustainability practices, and local community engagement.
- Special focus is also placed on climate change mitigation, energy efficiency, and personal responsibility toward safety and environmental performance.

4.4 Communication

Internal:

- Regular safety, site, and management meetings
- Digital communication platforms for reporting incidents, nonconformities, and sharing updates
- Annual IMS training and newsletter updates

External:

- Stakeholder meetings, public consultation during EIA process
- Mandatory compliance reporting to regulators
- Open channels for communities (feedback, grievance, suggestions)

Communication Plan: Stakeholder-specific communication requirements are aligned to the stakeholder engagement plan (see below).

4.5 Documented Information

- IMS Manual and associated policies, procedures, instructions, forms, and records are controlled, updated, and stored using secure IT systems.
- Documented Information Control: Version management, access controls, regular backups, and periodic reviews.
- All legal/contractual/statutory documents are retrievable, archived, and available for audit upon request.

5) Operation

5.1 Operational Planning and Control

All project activities are planned, implemented, and controlled per established IMS procedures, which specify:

- Defined and communicated acceptance criteria (quality, safety, environmental)
- Resource requirements and allocations
- Risk controls and mitigation plans
- Permits and regulatory approvals
- Supplier and contractor IMS integration (requirements in contracts)
- Emergency preparedness, site-specific risk assessments, and control plans22.

Controls extend to outsourced processes and off-site suppliers.

5.2 Requirements for Products and Services

- Customer requirements are confirmed, reviewed, and integrated into project plans/contracts.
- Reviews include not only specifications and standards, but also importance of OH&S and environmental compliance.

5.3 Design and Development

- Project engineering and designs comply with client specifications, local/international codes, ESG and CO_2 requirements.
- Sustainability/low-carbon objectives are embedded early in design using climate-resilient materials (e.g., ISSB, FSC-certified timber, strawboard), life cycle assessment, and resource efficiency modeling10.

5.4 Control of Externally Provided Processes, Products, and Services

- Supplier evaluation includes prequalification, audits, compliance checks (legal, QHSE, anti-corruption), and ongoing performance monitoring.
- Contracts specify Parkworth's IMS and project-specific requirements (including local content, sustainability, ethical standards).

5.5 Production and Service Provision

- Standardized procedures for site access, machinery certification, environmental controls, emergency response.
- All work conducted under strict supervision; field instructions and record-keeping.
- Community-sensitive protocols for noise, dust, waste, and accident prevention.

5.6 Release of Products and Services

- Project deliverables undergo formal inspections and testing before handover to clients.
- Only authorized personnel sign off on release documentation, confirming conformance to all contracts and IMS requirements.

5.7 Control of Nonconforming Outputs

- Any nonconformity is documented, segregated, and subject to investigation; remedial and preventive actions are applied and recorded.

Stakeholder Engagement Plan (Summary)24

Element	Example Application (Parkworth)
Stakeholder ID	Government, KCCA, local council, suppliers, donors, communities
Analysis	High-influence (government/financiers), high-interest (communities, clients), categorize in grid
Communication Plan	Weekly dashboards (for clients), monthly community/baraza forums, feedback channels, hotlines
Engagement Strategy	Early consultation during design/EIA, regular project briefings (local gov't), biannual supplier workshops
Feedback Mechanisms	Surveys, grievance redress, EHS incident hotline, feedback forms

Monitoring	Track participation levels, satisfaction scores, incident reports

Parkworth's plan ensures regulatory, social, and environmental compliance, as well as early identification and management of social/license-to-operate risks.

6) Performance Evaluation

6.1 Monitoring, Measurement, Analysis, and Evaluation

Parkworth systematically monitors:

- Quality: Nonconformity rates, client feedback, corrective action closure rate, audit findings.
- EHS: Accidents/incidents, environmental monitoring (noise, air, water, waste), near-misses, site hazards.
- Procurement: Supplier performance, delivery quality, compliance rates.

Key Performance Indicators (KPIs) are reviewed weekly at project level and monthly at headquarters. Data is collated both manually and digitally, analyzed, and reported to management.

Legal and regulatory compliance is verified through:

- Scheduled inspections
- Mandatory statutory/contractual reporting (e.g., NEMA, OSHA, donor audits)
- Internal compliance audits and management reviews

6.2 Internal Audit

- IMS internal audits span all management system domains.
- Annual audit plan addresses all departments/sites and is adjusted for new risks, incidents, or major process changes.
- Auditors are competent and independent from audited activities.
- Audit findings lead to corrective actions, and tracking/closure is mandated within specified timelines.
- Results inform management reviews and continual improvement.

6.3 Management Review

- Quarterly management reviews assess adequacy, effectiveness, and alignment of IMS with policy and objectives.
- Agenda: Review of progress toward objectives (quality, environment, safety), audit findings, incident reports, stakeholder feedback, regulatory and legal compliance, resource adequacy, and improvement needs.
- Action items documented, tracked, and reviewed in subsequent meetings.

7) Improvement

7.1 General

Parkworth fosters a proactive culture of continual improvement—incorporating lessons learned, staff suggestions, technological advances, and feedback from clients, regulators, and communities.

7.2 Nonconformity and Corrective Action

- Any nonconformity or incident is logged, investigated, and subject to root cause analysis (using tools such as 5 Whys, Fishbone Diagrams).
- Corrective actions are planned, implemented, and their effectiveness is evaluated within agreed timelines.
- Nonconformities include quality defects, safety incidents/lapses, environmental breaches, near misses, legal/regulatory violations, supplier issues, and complaints.
- Corrective actions emphasize systemic solutions, not just individual fixes.

Process Overview:

1. Detection and documentation of nonconformity/incident.
2. Root cause analysis (with relevant parties involved).
3. Devise corrective/preventive action plan (who, what, when, how).
4. Implementation and communication.
5. Verification/monitoring of effectiveness.
6. Record-keeping and lessons-learned dissemination for future planning26.

7.3 Continual Improvement

- Trends from incident and audit data, client feedback, KPI analysis, and external benchmarking feed into improvement planning.
- Targets and improvement initiatives are set at project, department, and IMS level and cascaded into SRMART objectives for the next planning cycle.

- Systems and processes are regularly reviewed and updated, particularly in light of technological advances, regulatory reforms, or significant project events.
- Suggestion schemes, staff recognition, and open reporting are encouraged to stimulate innovation and performance improvement.

8) Sample Tools and Templates

IMS SMART Objectives (2025/26)

Domain	Objective	Owner	Target Date
Quality	≤2% internal non-conformance rate (quarterly)	QHSE Manager	Dec 2026
Environment	Reduce waste-to-landfill by 30% on all sites; 40% of projects use ISSB/green materials	Project/Site Managers	Dec 2026
Safety	Keep LTIFR ≤1.5; Monthly safety toolbox talks on all sites	Safety Officer	Ongoing
Training	100% completion of core IMS induction for new hires within 30 days of assigning	HR/Training	Ongoing
Procurement	Reduce supplier nonconformance reports by 20%	Procurement	Dec 2026

Risk Register Template (Sample Fields)28

Risk ID	Description	Risk Owner	Likelihood	Impact	Controls/Mitigations	Status
R001	Delays in regulatory approvals	Project Mgr	Medium	High	Early submission, tracking, relationship building	Open
R002	On-site injury (fall)	Site Engr	Low	High	PPE, edge fencing, safety briefings	Closed
R003	CO_2 emission exceedance	EHS	Medium	Medium	Green materials spec., monitoring, training	Open
R004	Theft/vandalism at site	Project Mgr	Medium	High	Security firm, asset logs, community engagement	Open
R005	Local supplier default	Procurement	Low	Medium	Vetting, clear contracts, backup vendors	Closed

Risk registers are updated monthly and reviewed during project and management reviews.

Sample Stakeholder Engagement Plan Table (Excerpt)

Stakeholder	Engagement Level	Information Needs	Communication Method	Frequency	Responsible
Ministry of Works	Leading	Project progress, compliance, social/environmental performance	Monthly dashboard/email	Monthly	Project Manager
KCCA	Supporting	Traffic plans, noise/dust data, grievance status	Meetings & reports	Bi-monthly	EHS Lead
Local Communities	Neutral/Supporting	Employment, community risk, grievance process	Site forums, baraza	Quarterly	Community Liaison
Major Suppliers	Supporting	Delivery schedules, contract terms, EHS updates	Workshops, briefings	Quarterly	Procurement
Media/Public	Neutral/Low	Project milestones, impacts, closure	Press releases	As needed	PR/SDR

KPIs for engagement are tracked and reviewed quarterly. Grievance mechanisms and feedback loops are in place for continuous stakeholder input.

9) Legal and Regulatory Compliance Mapping

National Regulations:

- NEMA: Environmental impact assessment, waste management, pollution controls, EIA registration and annual reports.
- OSH Act 2006: Workplace registration, safety equipment, medical checks, machinery inspection, workplace hygiene, and staff safety training.
- PPDA: Procurement process, transparency, documentation, and supplier management.

International Standards:

- World Bank/IFC EHS Guidelines: Good International Industry Practice (GIIP), community and worker health and safety, environmental performance monitoring, stakeholder engagement, incident notification and reporting systems.

Donor/Client Requirements:

- Project-specific ESHS clauses in contracts, reporting schedules, performance security provisions, grievance/feedback systems, and EHS performance metrics.
-

10) Sustainable Construction and Climate Resilience

Parkworth's commitments include:

- Prioritize eco-friendly/low-carbon materials (e.g., ISSBs, strawboard, certified timber, lightweight steel) to reduce CO_2 emissions by at least 20% per project by 202610.
- Design for operational energy efficiency, water minimization (rainwater harvesting, water-saving fixtures), and waste recycling (on-site sorting, reuse).
- Partner with local manufacturers of green materials, (see Zero Carbon Designs/IFC EDGE-certified approaches).
- Support climate adaptation (flood-resilient roads, stormwater systems).
- Collaborate on youth/labor training initiatives, especially in green technologies.
- Pursue relevant green certifications (IFC EDGE, local equivalents) on flagship projects.

11) Roles, Responsibilities, and Training Matrix

Role	IMS Knowledge Required	Training Frequency
Managing Director	IMS overview, legal requirements, leadership audits	Annual
Project Manager	Risk management, stakeholder engagement, audit protocol	Biannual
Safety Officer	Hazard identification, incident investigation, legal compliance	Quarterly
HR/Training	Competence assessment, induction, awareness, record-keeping	Quarterly
Procurement	Supplier prequalification, IMS integration in contracts	Annual
Site Engineer	Safe work methods, environmental controls, incident response	Monthly
Field Worker	Tool-box talks (hazard recognition, safe work procedures, emergency response)	Weekly

Training completion is tracked, and competence is evaluated as part of performance review and internal audits.

12) Continual Improvement Roadmap

Parkworth is committed to implementing the following improvement activities:

- Full digitalization of IMS registers, forms, and reporting by Q3 2026.
- Annual review and renewal of all key procedures, risk registers, and training curricula.
- Expand sustainable procurement (at least 30% of all project value to locally produced and eco-certified materials by 2027).
- Regular benchmarking against regional/industry best practices.
- Staff innovation challenge—annual competition to identify and reward IMS improvement ideas.

13) Sustainability Action Plan

Parkworth Infrastructure Engineering Company Uganda Limited

13.1 Objectives

- Minimize environmental impact across all project phases
- Promote circular construction practices (reuse, recycle, reduce)
- Support climate resilience and biodiversity protection
- Align with international ESG standards (IFC, World Bank)

13.2 Key Focus Areas

♻ Waste Management

- Segregate waste at source (organic, recyclable, hazardous)
- Partner with certified recycling firms in Uganda
- Track waste volumes and diversion rates monthly
- Target: 90% of construction waste diverted from landfill by 2026

🌍 Carbon Emissions Reduction

- Use low-carbon materials (e.g., fly ash concrete, recycled steel)
- Optimize logistics to reduce fuel consumption
- Implement carbon tracking tools on each project
- Target: 20% reduction in CO_2 emissions per project by 2026

💧 Water Conservation

- Install water-efficient fixtures on sites
- Reuse greywater for dust suppression and cleaning
- Monitor water usage per site monthly
- Target: 30% reduction in water consumption by 2025

🌿 Biodiversity Protection

- Conduct ecological assessments before site clearance
- Avoid construction near protected habitats
- Replant native vegetation post-construction
- Target: 100% compliance with biodiversity mitigation plans

Sustainable Procurement

- Prioritize local suppliers with sustainable practices
- Include ESG criteria in supplier evaluations
- Promote use of certified green materials
- Target: 60% of procurement from local, ethical sources by 2025

13.3 Monitoring & Reporting

Indicator	Frequency	Responsible	Reporting Format
CO_2 emissions per project	Monthly	Environmental Officer	Sustainability Dashboard
Waste diversion rate	Monthly	Site Supervisor	Waste Log + Charts
Water usage per site	Monthly	Site Engineer	Water Meter Reports
% local sustainable sourcing	Quarterly	Procurement Lead	Procurement Scorecard

14) Contractor & Supplier Management Framework

Parkworth Infrastructure Engineering Company Uganda Limited

14.1 Prequalification Criteria

All contractors and suppliers must meet:

- Legal registration and tax compliance
- Proven experience in infrastructure projects
- Safety record and insurance coverage
- ESG compliance (environmental, social, governance)
- References from past clients

14.2 ESG Screening Checklist

Criteria	Description	Required Evidence
Environmental Practices	Waste handling, emissions control	EMS policy, permits
Labor Standards	Fair wages, no child labor	HR policy, payroll records
Health & Safety	PPE provision, training programs	Safety logs, training matrix
Local Sourcing Commitment	Use of Ugandan suppliers and labor	Procurement records

14.3 Onboarding & Induction

- Orientation on Parkworth's IMS policies
- Safety and environmental training
- Site-specific risk briefings
- Signing of IMS compliance agreement

14.4 Performance Evaluation Scorecard

Metric	Weight (%)	Evaluation Method
Quality of Deliverables	30%	Site inspections, defect logs
Timeliness	20%	Schedule adherence reports
Safety Compliance	20%	Incident reports, PPE audits
Environmental Compliance	20%	Waste logs, emissions tracking
Stakeholder Responsiveness	10%	Feedback surveys, grievance logs

14.5 Corrective Action Protocol

- Non-compliance triggers formal notice
- Root cause analysis conducted jointly
- Corrective action plan submitted within 7 days
- Follow-up audit within 30 days
- Repeat violations may lead to contract termination

15) Process Mapping and Flowcharts

Example: Procurement Lifecycle

1. Needs Identification →
2. Specification Development →
3. Supplier Prequalification →
4. Tendering & Evaluation →
5. Contract Award →
6. Delivery & Inspection →
7. Payment & Performance Review

Each step includes inputs, outputs, responsible roles, and linked IMS procedures.

16) Legal & Regulatory Compliance Matrix

Regulation / Standard	ISO Clause	Compliance Action	Responsible
NEMA Act	6.1.3	EIA submission, permits	Env. Officer
PPDA Guidelines	8.4	Transparent procurement	Procurement
OSHA Uganda	6.1.2	Risk assessments, PPE	Safety Officer
IFC Performance Standards	4–10	ESG reporting, stakeholder plans	IMS Manager

17) Project-Level IMS Implementation Plan

Phase	IMS Activities	Responsible
Pre-construction	Stakeholder mapping, baseline assessments	IMS Manager
Construction	Daily safety briefings, environmental monitoring	Site Supervisor
Post-construction	Handover documentation, lessons learned	Project Manager

18) Crisis Management & Business Continuity Plan

Risk Scenarios

- Political unrest
- Pandemic outbreak
- Cyberattack on project systems
- Natural disasters (floods, landslides)

Response Protocols

- Activate emergency response team
- Notify stakeholders and clients
- Secure critical assets and data
- Shift operations to backup suppliers/sites

19) Cultural & Community Impact Assessment

Key Actions

- Hire local labor (target: ≥70%)
- Conduct cultural sensitivity training
- Establish grievance redress mechanism
- Support local SMEs through subcontracting

20) Performance Benchmarking

KPI	Parkworth	Industry Avg	Status
LTI Frequency Rate	0.3	0.5	Better
% Projects Delivered On Time	92%	85%	Better
CO_2 Emissions per Project	62 tons	70 tons	Better
Stakeholder Satisfaction	88%	80%	Better

21) Digital Tools & Technology Integration

Current Tools

- BIM for design coordination
- Drone inspections for site progress
- Mobile apps for incident reporting
- Cloud-based document control

Future Roadmap

- AI-based risk prediction
- IoT sensors for environmental monitoring
- Blockchain for procurement transparency

22) Appendices & Reference Materials

Included:

- Glossary of IMS terms
- ISO clause interpretations
- Sample forms (incident report, audit checklist, training log)
- Organizational chart with IMS roles
- IMS awareness posters and visual aids

23) Closing Statement

This IMS Manual establishes the integrated, risk- and performance-based management framework that enables Parkworth Infrastructure Engineering Company Uganda Limited to meet—and sustain—international best practice, national legal compliance, and stakeholder expectations in East Africa's fast-evolving infrastructure sector. The IMS is not static: it is reviewed, improved, and renewed in consultation with leadership, staff, clients, regulators, and affected communities. Through proactive management, stakeholder collaboration, and a relentless drive for improvement, Parkworth can deliver safe, sustainable, and high-quality infrastructure—today and for generations to come.

24) IMS Manual Annexes

Annex A: Sample Risk Register

Risk ID	Description	Likelihood	Impact	Mitigation Strategy	Responsible
R001	Delay in material delivery	Medium	High	Source locally; maintain buffer stock	Procurement
R002	Community opposition to project	Low	High	Early engagement; grievance redressal	Stakeholder Officer
R003	Environmental spill on site	Low	High	Spill kits; staff training; emergency drills	Safety Officer
R004	Regulatory changes (NEMA/PPDA)	Medium	Medium	Legal monitoring; adaptive planning	IMS Manager
R005	Heat stress affecting workers	High	Medium	Shade zones; hydration protocols	Site Engineer

Annex B: Stakeholder Engagement Plan

Stakeholder Group	Engagement Method	Frequency	Key Messages	Responsible
Local Communities	Town hall meetings, radio updates	Monthly	Job creation, safety, environmental care	Community Liaison
Government Agencies	Formal reports, compliance updates	Quarterly	Progress, compliance, impact	IMS Manager
Suppliers	Contract meetings, performance reviews	Bi-monthly	Delivery timelines, quality expectations	Procurement Lead
Donors (IFC, WB)	ESG reports, site visits	Annually	Sustainability, risk management	Managing Director

Annex C: Training Matrix

Role	Training Topic	Frequency	Delivery Mode	Trainer
Site Engineer	ISO 9001, 14001, 45001 overview	Annually	Workshop	IMS Manager
Safety Officer	Incident reporting, PPE protocols	Quarterly	On-site drills	External Consultant
Environmental Officer	Waste management, CO_2 tracking	Bi-annually	Online + field demo	Env. Consultant
All Staff	Ethics, stakeholder engagement	Annually	Seminar	HR Manager

Annex D: Audit Schedule

Audit Type	Scope	Frequency	Lead Auditor	Reporting To
Internal IMS Audit	ISO 9001, 14001, 45001 compliance	Quarterly	IMS Manager	Managing Director
Site Safety Audit	PPE, incident logs, emergency drills	Monthly	Safety Officer	Project Manager
Environmental Audit	Waste, emissions, spill response	Bi-annually	Env. Officer	IMS Manager
Supplier Audit	Delivery, quality, ethical sourcing	Annually	Procurement Lead	Finance & IMS Manager

Annex E: SMART Objectives Tracker

Objective	Specific	Measurable	Achievable	Relevant	Time-bound
Reduce CO_2 emissions by 20% per project	✓	Tons/project	✓	Sustainability	By Dec 2026
Achieve zero lost-time injuries	✓	LTI rate	✓	Safety	Ongoing
Source 60% of materials locally	✓	% local content	✓	Local economy	By Dec 2025
Train 100% of staff in IMS awareness	✓	Attendance logs	✓	Compliance	Annually

Annex F: Document Control Register

Document Name	Version	Owner	Last Reviewed	Next Review	Access Level
IMS Manual	v1.0	IMS Manager	Sep 2025	Sep 2026	All Staff
Environmental Management Plan	v1.2	Env. Officer	Aug 2025	Feb 2026	Project Teams
Safety Incident Reporting Procedure	v2.0	Safety Officer	Jul 2025	Jan 2026	Site Teams
Procurement Policy	v1.1	Procurement	Jun 2025	Dec 2025	Management

Annex G: Emergency Response Protocols

Site Emergency Response Flowchart:

1. Incident occurs → Alert Safety Officer
2. Evacuate if necessary → Use designated routes
3. First aid administered → Call emergency services
4. Incident logged → Investigation initiated
5. Corrective action taken → Report submitted

Key Emergency Contacts:

- Safety Officer: +256 414 554 008
- Nearest Health Facility: Mulago Hospital
- Fire Department: 112
- Police: 999

Annex H: Environmental Monitoring Template

Parameter	Method of Measurement	Frequency	Responsible	Acceptable Range
Air Quality (PM2.5)	Portable sensor	Weekly	Env. Officer	< 35 µg/m³
Noise Levels	Decibel meter	Daily	Site Supervisor	< 85 dB
Waste Segregation	Visual inspection	Daily	Site Teams	≥ 90% compliance
Water Runoff	Sampling	Monthly	Env. Consultant	pH 6.5–8.5

Annex I: IMS Performance Dashboard (Sample KPIs)

Domain	KPI	Target	Current Status	Trend
Quality	% Projects Delivered On Time	100%	92%	↗
Safety	Lost-Time Injury Frequency Rate	0	0.3	↘
Environment	CO_2 Emissions per Project (tons)	< 50	62	↘
Procurement	% Local Sourcing	≥ 60%	58%	↗
Training	% Staff Trained in IMS	100%	85%	↗