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# MODULE 4



| ECONOMIC AND SOCIAL GOVERNANCE (ESG) AND SUSTAINABILITY PRACTICES | |
|---|---|
| Duration: | 5 hours |
| Learning objectives: | a) **Understand ESG Principles:** Participants will be able to explain the fundamental concepts of Environmental, Social, and Governance (ESG) criteria and their significance in sustainable development.<br>b) **Conduct ESG Research:** Participants will develop the skills necessary to conduct thorough ESG research, including data collection, analysis, and critical evaluation of sustainability reports.<br>c) **Integrate Local Knowledge Systems:** Participants will learn to integrate Indigenous Knowledge Systems (IKS) with Education for Sustainable Development (ESD) to promote culturally relevant and effective sustainability practices.<br>d) **Implement Environmental Programs:** Participants will gain practical skills in designing and implementing environmental programs focused on waste reduction, energy conservation, and hazardous substance management.<br>e) **Evaluate ESG Compliance:** Participants will be able to assess organizational compliance with current ESG standards and regulations, identifying areas for improvement and best practices. |
| Sub-Modules: | a. Understanding ESG Standards: Latest Trends and Standards in ESG<br>b. ESG Research – Conducting effective ESG research<br>c. ESG and IKS: Integrating local knowledge systems with education for sustainable development<br>d. Environmental Programs: Implementing programs for waste reduction, energy conservation and hazardous substance management |

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| Resources and devices: | **1. Books:**<br>● "Sustainable Investing: Revolutions in Theory and Practice" by Cary Krosinsky and Sophie Purdom<br>● "The ESG Handbook: A Guide to Environmental, Social, and Governance Investing" by David H. Rosenberg<br>● "Research Methods for Business Students" by Mark Saunders, Philip Lewis, and Adrian Thornhill<br>● "Waste Management Practices: Municipal, Hazardous, and Industrial" by David C. Wilson<br>● "Education for Sustainable Development Goals: Learning Objectives" by UNESCO<br><br>**2. Articles and Journals:**<br><br>● Journal of Sustainable Finance & Investment<br>● Business Strategy and the Environment<br>● Corporate Social Responsibility and Environmental Management<br><br>**3. Online Resources:**<br><br>● United Nations Sustainable Development Goals (SDGs) website<br>● Global Reporting Initiative (GRI) website for guidelines on sustainability reporting<br>● The Sustainability Accounting Standards Board (SASB) for ESG standards<br><br>**4. Devices for Learning**<br>● E-Readers: Devices like Amazon Kindle or Kobo can be used to access a wide range of e-books on ESG and sustainability topics.<br>● Tablets: Tablets such as the iPad or Android tablets can be utilized for reading e-books, accessing online courses, and participating in webinars.<br>● Laptops/Desktops: Essential for conducting research, writing reports, and engaging with interactive online resources related to ESG practices.<br>● Smartphones: Useful for accessing apps related to sustainability tracking, news articles, and podcasts focused on ESG topics. |

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| | • Wearable Devices: Smartwatches can be used to receive notifications about sustainability events or reminders for learning activities. |
| Assessment: | **1. Formative Assessments**<br>Quizzes and Short Tests: Regular quizzes can be conducted after each sub-module to assess understanding of key concepts and terminology related to ESG.<br>Reflective Journals: Encourage participants to maintain journals where they reflect on their learning experiences, insights gained, and applications of ESG principles in real-world scenarios.<br><br>**2. Project-Based Assessments**<br>Group Projects: Assign participants to work in groups to develop a comprehensive ESG report or sustainability plan for a hypothetical or real organization. This will assess their ability to apply knowledge collaboratively.<br>Case Studies: Analyze real-world case studies of organizations implementing ESG practices. Participants can present their findings and recommendations.<br><br>**3. Practical Implementation**<br>Field Projects: Participants can engage in community-based projects focusing on waste reduction or energy conservation, documenting their processes and outcomes as part of their assessment.<br>Program Design: Task participants with designing an environmental program addressing a specific issue (e.g., hazardous waste management), which they will present to the class.<br><br>**4. Summative Assessments**<br>Final Exam: A comprehensive exam covering all module content, including key concepts, methodologies, and practical applications of ESG standards.<br>Capstone Project: A final project that requires participants to synthesize their learning by developing a detailed ESG strategy for an organization, including implementation plans and evaluation metrics |

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| | **5. Peer Assessment**<br>Peer Reviews: Incorporate peer assessment where participants evaluate each other's projects or presentations based on predetermined criteria. This encourages critical thinking and constructive feedback. |
| Skills/abilities developed: | **a. ESG Knowledge and Understanding:**<br>Learners will gain a comprehensive understanding of ESG principles, frameworks, and regulations, enabling them to navigate the complexities of sustainable governance.<br>**b. Research and Analytical Skills:**<br>Participants will develop strong research skills, including data collection, analysis, and critical evaluation of ESG-related information, enhancing their ability to make informed decisions.<br>**c. Program Design and Implementation:**<br>Learners will acquire practical skills in designing and implementing environmental programs focused on waste reduction, energy conservation, and hazardous substance management.<br>**d. Integration of Local Knowledge Systems:**<br>Participants will learn to incorporate Indigenous Knowledge Systems (IKS) into Education for Sustainable Development (ESD), fostering a holistic approach to sustainability that respects local cultures.<br>**e. Stakeholder Engagement and Communication:**<br>The module will enhance learners' abilities to engage with various stakeholders effectively, communicate sustainability strategies, and advocate for ESG practices within organizations.<br>**f. Problem-Solving and Critical Thinking:**<br>Learners will develop critical thinking skills necessary for evaluating complex sustainability challenges and proposing innovative solutions.<br>**g. Project Management Skills:**<br>Participants will gain experience in managing projects related to ESG initiatives, including planning, execution, monitoring, and evaluation. |

# Submodule 4.1

### Understanding ESG Standards

→ **Skills:**

1. ESG knowledge.
2. Compliance understanding.

| **UNDERSTANDING ESG STANDARDS** |
|---|
| **Activity 1:** Understanding ESG Standards |
| **Duration**: 1.5 hours |
| **Specific Learning Objectives**<br>1. Explain key ESG principles and their importance in sustainable development.<br>2. Identify regulatory frameworks and reporting standards relevant to ESG. |
| **Methodology, Resources and Devices**<br>**Methodology**: Interactive lectures, - Interactive lectures, case study analysis<br>**Learning Devices**: Projector for presentations, Online platforms for discussions<br>**Resources**: ESG reports from various organizations, GRI and SASB guidelines |
| **Description of the activity and Key Concepts**<br>**Activity:** Create a mock exercise on ESG standards development for a hypothetical project or enterprise.<br>Group Discussions on Regulatory Frameworks.<br>Lectures on ESG Principles<br>**Key Concepts:** - ESG criteria, Regulatory frameworks, Reporting standards |
| **Assessment**<br>- Quiz on ESG principles<br>- Group presentations on a chosen ESG standard |
| **Skills/Abilities developed**<br>- ESG knowledge<br>- Compliance understanding |
| **Further readings, activities, materials, best practices**<br>a) "Sustainable Investing: Revolutions in Theory and Practice" by Cary Krosinsky and Sophie Purdom.<br>b) "The ESG Handbook: A Guide to Environmental, Social, and Governance Investing" by David H. Rosenberg<br>c) "Corporate Social Responsibility: A Strategic Approach" by David L. Rainey<br>Best Practices:<br>Regularly update ESG policies to align with evolving regulations and standards. |

Engage stakeholders in the development of ESG strategies to ensure transparency and accountability.
Implement a robust reporting framework that adheres to GRI or SASB standards for better accountability.

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## Understanding ESG Standards

CENTER FOR DIGITAL SKILLS ACQUISITION FOR WOMEN AND YOUTH IN AFRICA
EGUNEC FOUNDATION EF
ustadi empower • connect • prosper
NGO NEST Berlin
PRIZMA Fundacija za izboljšanje zaposlitvenih možnosti
yadaversity
eduforma ...strumenti su misura per la persona
EUROPEAN KNOWLEDGE SPOT
Development for Human Dignity
SOUTHERN AFRICA DEVELOPMENT, RESEARCH AND TRAINING INSTITUTE NPC
SADRAT INSTITUTE
- YOUR PARTNER IN SUSTAINABLE DEVELOPMENT -

# Learning Objectives

Define ESG and explain its relevance.
Differentiate the components of ESG criteria.
Understand ESG reporting frameworks like GRI and SASB.
Explain the benefits of ESG compliance.
Identify practical challenges and best practices.
Design a basic ESG policy outline for a small business or initiative.

# Key Concepts

1. ESG: Environmental, Social, Governance
2. ESG Criteria
3. ESG Reporting Frameworks: GRI, SASB
4. ESG Compliance and Benefits
5. ESG Challenges and Best Practices

# Introduction to ESG

- **ESG (Environmental, Social, Governance)** is a framework that helps businesses and organizations operate sustainably and responsibly by considering environmental protection, social impact, and transparent governance in their operations.
- ESG helps align businesses with long-term societal and environmental goals
- Example of ESG - A youth-led agribusiness uses compost (E), hires local women (S), and maintains financial transparency (G).

Visual: Triangle diagram showing E, S, and G pillars with icons.

# ESG Criteria

**ESG criteria** are the specific areas businesses must address to meet environmental, social, and governance standards — like reducing emissions, promoting equity, and practicing transparency.

- **Environmental**: Impact on nature — waste, water, emissions.
- **Social**: People-focused — labor, safety, inclusion.
- **Governance**: Management-focused — ethics, decisions, compliance.

- **Example**:
  - A small manufacturing business installs a solar panel system (E), hires youth from the local community (S), and shares its budget with members monthly (G).

**Teaching Tip**:

- Provide learners with scenario cards to classify actions under E, S, or G.

# Regulatory Frameworks

**ESG regulatory frameworks** are standardized systems that guide how organizations measure, monitor, and report on ESG practices.

**Global Reporting Initiative (GRI) Framework**: Covers broad sustainability themes — accessible to all sectors.

**Sustainability Accounting Standards Board (SASB) Framework**: Sector-specific, designed for investors, focuses on financial materiality.

- **Example**:
  - A bank reports on cybersecurity under SASB while a farming co-op reports on soil health using GRI.

**Teaching Tip**:

  - Use a table to compare GRI and SASB: who is your audience, what is the scope, provide examples.
  - Analogy: GRI = full community report; SASB = financial investor brief.

# ESG Reporting Standards

**ESG reporting** is the structured communication of a company's or organization's ESG efforts, outcomes, and impact to stakeholders and the public.

- What's included: goals, actions, results, metrics (e.g., % of water saved or % of energy saved as a result of solar installation).
- Purpose: accountability, transparency, communication.

**Example**:

- A youth CBO shows in their annual report how they planted 500 trees and trained 40 women.

**Teaching Tip**:

- Show learners a simple ESG report page and break it down.
- Ask: "What's one thing your organization could report?"

# Benefits of ESG Compliance

**ESG compliance** refers to meeting expected ESG standards, which can lead to social, environmental, reputational, and financial benefits.

- **Why does compliance matter?**
  - Attracts investors and donors.
  - Builds trust with customers and partners.
  - Reduces risk of legal issues or community backlash.

- **Example**:
  - A clean-energy startup gets EU funding due to strong ESG practices.

  **Teaching Tip**:

  - Ask learners to list benefits for a business that treats workers fairly and protects nature.
  - Use a “benefits tree” diagram showing short-term and long-term advantages.

# Challenges to ESG Implementation

**ESG implementation challenges** refer to obstacles businesses face when trying to put ESG principles into action.

**These Include**:

- Lack of knowledge or tools.
- Costs of change (e.g., switching from diesel to solar).
- Data tracking and resistance to change.

- **Example**:
  - A women's savings group struggles with tracking social impact until they receive mobile data training.

**Teaching Tip**:

- Ask: "What makes it hard for businesses here to go green or ethical?"
- Provide a solution brainstorm space on a whiteboard.

# ESG Best Practices

**Best Practices should include:**

- Setting clear ESG goals and link them to business vision.
- Use of simple metrics (e.g., litres of water saved, KW of energy saved, carbon sequestered etc).
- Sharing progress via WhatsApp groups, community boards.

- **Example**:
  - A youth group posts monthly updates on their eco-clean-up project with before/after photos.

**Teaching Tip**:

- Display “5 steps to ESG success” as a visual checklist.
- Invite learners to create their own ESG best-practices poster.

# Practical Exercise/ Assignment

1. Begin by choosing a business idea or real enterprise.
2. Identify 1 action per ESG category (1 economic, 1 social and 1 governance)ß
3. Select GRI or SASB and 2-3 impact indicators (KPIs).

**Example**:

a. A boda-boda group switches to eco-oil (E), organizes safety workshops (S), and rotates leadership (G).

**Teaching Tip**:

b. Provide a worksheet template and allow group collaboration.
c. Encourage creativity during sessions through use of visuals, use of local terms, metrics.

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# Submodule 4.2

## ESG Research

→ **Skills:**

1. Research skills.
2. Data analysis, interpretation and presentation skills.

| **ESG RESEARCH** |
|---|
| **Activity 1:** Conducting Effective ESG Research |
| **Duration**: 1.5 hours |
| **Specific Learning Objectives**<br>1. Conduct effective research on ESG data sources.<br>2. Analyze and interpret ESG-related data critically. |
| **Methodology, Resources and Devices**<br>**Methodology**: - Hands-on research projects, Data analysis exercises<br>**Learning Devices**: Laptops for research, Statistical software for data analysis<br>**Resources**: - Access to databases (e.g., SQLite, JSTOR), Online research guides |
| **Description of the activity and Key Concepts:**<br>**Activity**: - Research assignments on ESG data sources, workshops on data analysis techniques<br>**Key Concepts**: - Research methodologies, data collection and analysis (methods, techniques) |
| **Assessment**<br>a. Research paper on an ESG topic<br>b. Presentation of research findings in a group setting for peer review |
| **Specific Skills/Abilities developed**<br>a) Research skills<br>b) Data analysis, interpretation and presentation skills |
| **Further readings, activities, materials, best practices**<br>"Research Methods for Business Students" by Mark Saunders et al.<br>"The Handbook of Corporate Financial Risk Management" by Stanley Myint and Fabrice Famery - "Data Analysis for Business Decisions" by John Smith<br><br>Best Practices:<br>Utilize a mix of qualitative and quantitative research methods for comprehensive ESG analysis.<br>Ensure data integrity by verifying sources and using reliable databases for research.<br>Regularly review and update research methodologies to incorporate new tools and technologies. |

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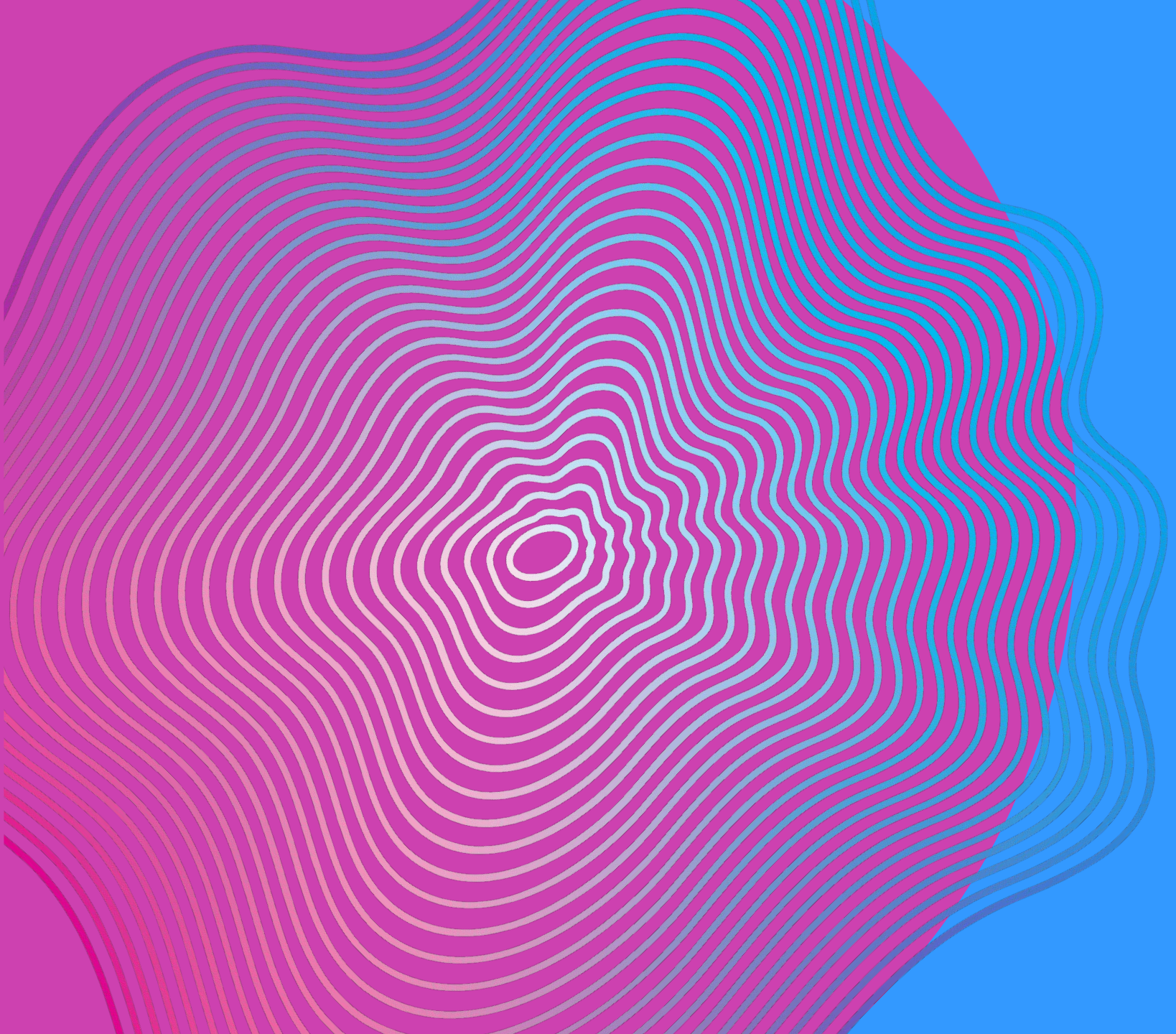
ESG Research



# Learning Objectives

1. Understand ESG research and why it matters.
2. Identify credible ESG data sources.
3. Conduct both qualitative and quantitative ESG data collection.
4. Analyze and present ESG findings.
5. Maintain data integrity and ethical standards.

# Key Concepts

1. ESG Research Methodologies
2. Data Collection (Primary & Secondary)
3. Data Analysis (Statistical, Thematic)
4. Data Integrity
5. ESG Communication

# What is ESG Research and Why is it Important?

- ESG research involves collecting and interpreting data on how organizations perform in terms of environmental responsibility, social impact, and governance quality.
- ESG research allows businesses and organizations to make informed decisions, improve practices, build credible reports, and access funding or partnerships based on reliable data.
- It should include elements that help to understand ESG performance through data, can be internal vs. external and plays a role in compliance, decision-making, and reporting.
- Without research, ESG claims are just talk. Research provides the evidence.
- Who should use it? - M&E officers, project teams, impact investors, entrepreneurs seeking grants.

Example: A youth group in Kisii uses monthly surveys to track community feedback on water-saving initiatives.

Teaching Tip - Ask learners to share how they've collected data before — was it ESG related?

# Data Sources

ESG data sources are the **tools and places** you gather information from to assess environmental, social, and governance performance.

**These may include**:

- Internal records (e.g., HR logs, energy bills).
- Surveys, interviews, stakeholder feedback.
- Public databases (e.g., GRI repository, Kenya National Bureau of Statistics).
- ESG rating agencies.

- **Why It Matters**:
  Good data starts with knowing where to look.
- **Who Should Use It**:
  NGOs, donor-funded projects, ESG officers, researchers.

**Example**:
A green enterprise in Nairobi combines utility bill data with staff surveys to measure ESG.

- **Teaching Tip**:
  Let groups list 5 ESG data sources for their organization or idea.

# Quantitative vs Qualitative Research

Quantitative ESG research focuses on numbers (emissions, people, income, diversity %), while qualitative ESG research focuses on stories, perceptions, and values.

**Research should take into account and include**:

- Quantitative = measurable indicators.
- Qualitative = stakeholder interviews, focus groups.
- Both types help build a complete ESG picture.

**Why It Matters**:
Balanced research helps capture the facts **and** the feelings.

**Who Should Use It**:
Fundraisers, program evaluators, social enterprise owners.

**Example**:
A Nairobi-based recycling company tracks tonnes recycled (quant) and collects community testimonials (qual).

- **Teaching Tip**:
  Show two examples and ask: “Which is quant? Which is qual?”

# Data Collection Methods for ESG

**Data collection can be done through**:

- Surveys (online or paper).
- Interviews with workers or stakeholders.
- Observation logs (e.g., water usage).
- Document reviews (e.g., training attendance sheets).

**Why It Matters**: Quality collection = reliable analysis. **Who Should Use It**: ESG officers, interns, monitoring staff, evaluators.

- **Example**:
  A youth cooperative uses KoboToolbox to collect mobile survey data on labor rights compliance.

**Teaching Tip**: Conduct a mini in-class survey using mobile forms or printed questionnaires.

# Analyzing your Data and Presenting your Findings

Data analysis means converting raw data into **insights and conclusions**.

**Data should include**

- Basic statistics (averages, trends).
- Thematic analysis for qualitative data.
- Visualization (graphs, charts, word clouds).

- **Why It Matters**: Analysis transforms scattered data into actionable decisions. **Who Should Use It**: M&E teams, program managers, fundraisers.
- **Example**: A SACCO analyzes monthly power use and member complaints to improve services and sustainability.

**Teaching Tip**: Provide a simple ESG dataset and let learners practice with Excel or Google Sheets.

Your  findings are the **summarized, analyzed results** of your research that are shared with stakeholders.

- Use simple graphs, infographics, and narratives.
- Customize for the audience — funders, staff, public.
- Include successes and areas for improvement.

- **Why It Matters**: Clear reporting builds trust, fuels engagement, and opens funding doors. **Who Should Use It**: Everyone communicating ESG outcomes, from grant writers to community leads.
- **Example**: A women-led eco-startup uses infographics to show employment and emissions saved on Instagram and in donor reports.

**Teaching Tip**: Show a cluttered report and a clean one — ask learners to vote which they'd rather read.

# Data Integrity and Ethics in ESG Research

Data integrity and ethics ensure your ESG research is **accurate, respectful, and trustworthy**.

- **When carrying out your research:**
  a. Get informed consent when surveying.
  b. Do not fabricate your data or exhibit bias (be objective).
  c. Transparent reporting — including challenges.

- **Why It Matters**: Integrity makes your findings credible and protects stakeholders. **Who Should Use It**: Researchers, project officers, M&E staff, ESG consultants.
- **Example**: A green project in Eldoret invalidates faulty data and explains it openly in the report and gains donor trust.

**Teaching Tip**: Present a scenario: “Your boss asks you to delete a negative comment from the report. What do you do?”

# ESG Research - Effective and Best Practices

Best practices are **effective habits and standards** that improve ESG research quality and reliability.

- **You should:**
  - Triangulate sources (use 2+).
  - Use clear indicators (e.g., # trees planted, number of acres ploughed and planted, no of youth with improved income).
  - Regularly review tools and methods (these change, don't use obsolete tools)
  - Validate findings with stakeholders.
- **Why It Matters**: Good habits lead to better decisions and long-term credibility.
- **Who Should Use It**: All ESG practitioners, field teams, program managers.
- **Example**:
  A waste recycling project in Mombasa hosts a monthly stakeholder feedback forum on ESG issues.

**Teaching Tip**: Learners work in groups to design their own "5 ESG Research Habits" poster.

# Practical Exercise

1. **Task**
   Learners design a basic ESG research plan for a selected organization or project.

2. **Steps**
   a. Choose a real or hypothetical organization.
   b. Identify one environmental, one social, and one governance question.
   c. Select data sources and collection methods.
   d. Propose how to analyze and report findings.

3. **Output**
   a. A short group presentation or visual storyboard outlining the plan.

**Teaching Tip**: Provide a simple worksheet with boxes for each step. Encourage peer feedback and reflection.

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# Submodule 4.3

## ESD and IKS

→ **Skills:**

1. Contextual awareness.
2. Holistic approach to sustainability.

| **ESD and IKS** |
|---|
| **Activity 1:** Integrating Local Knowledge systems with education for sustainable development |
| **Duration**: 1 hour |
| **Learning Objectives**<br>a. Integrate Indigenous Knowledge Systems into sustainable education practices.<br>b. Develop strategies for effective community engagement in ESD. |
| **Methodology, Learning Devices, and Resources**<br>**Methodology:** Collaborative learning, community engagement projects.<br>**Learning Devices:** Multimedia resources for presentations, field trip materials.<br>**Resources: -** UNESCO ESD guidelines, Case studies of successful ESD implementations. |
| **Activity and Key Concepts**<br>**Activity**: Workshops integrating local knowledge systems, group projects focused on ESD strategies<br>**Key Concepts**: Education for Sustainable Development (ESD), indigenous Knowledge Systems (IKS) |
| **Assessment**<br>- Project report on integrating IKS into ESD<br>- Reflective essay on community engagement |
| **Specific Skills/ Abilities Developed**<br>- Contextual awareness.<br>- Holistic approach to sustainability |
| **Further Readings, activities, materials and best Practices**<br>"Education for Sustainable Development Goals: Learning Objectives" by UNESCO<br>"Indigenous Knowledge Systems in Education: A Global Perspective" by Michael T. O'Connor<br>"Transforming Education for Sustainability" by David W. Orr<br><br>Best practices:<br>Foster partnerships with local communities to integrate Indigenous Knowledge Systems into ESD programs.<br>Create culturally relevant curricula that reflect local values and practices in sustainability education. |

Promote experiential learning opportunities that engage students with their local environment.

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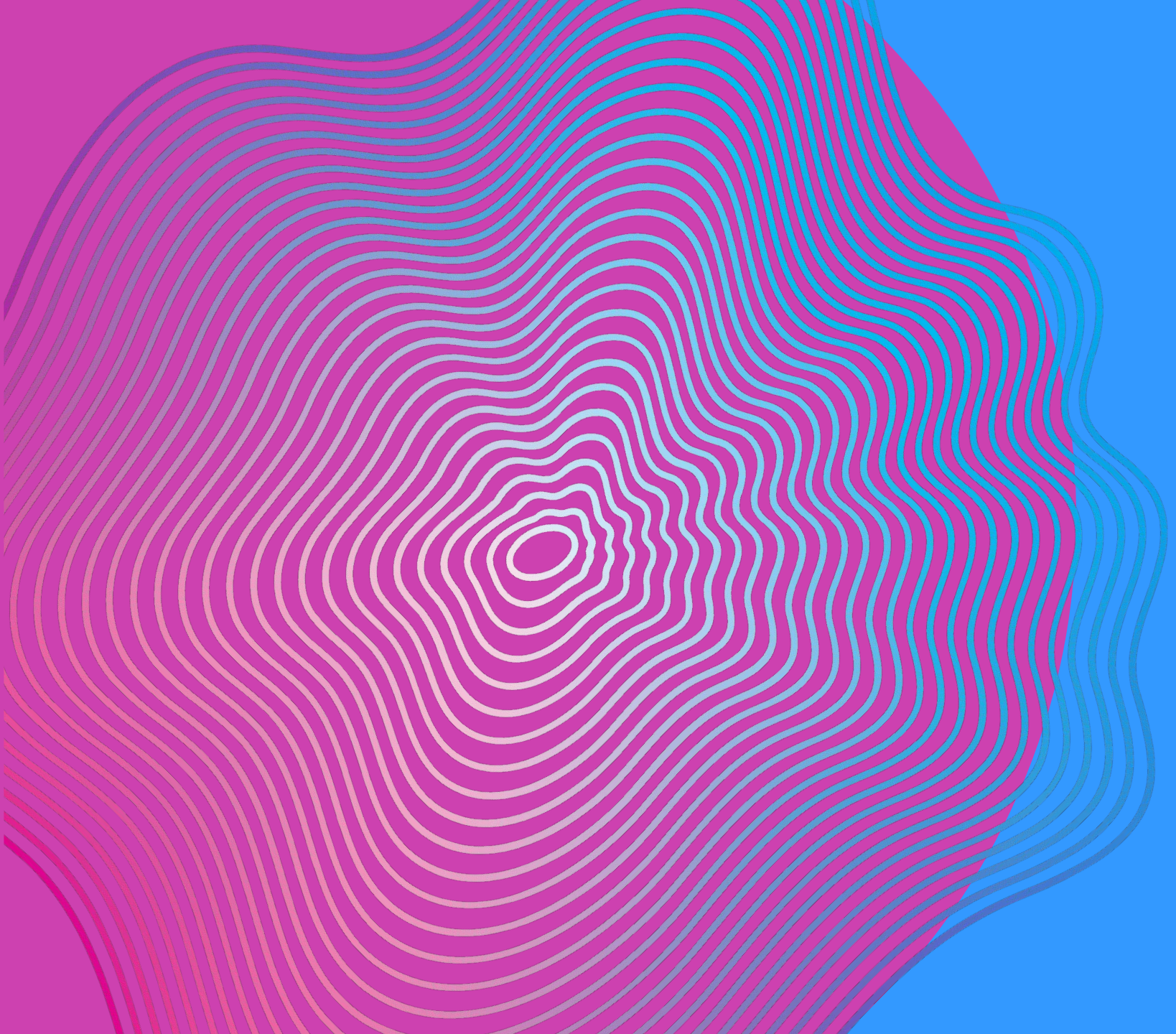
Education for Sustainable Development (ESD) and Indigenous Knowledge Systems (IKS)



# Learning Objectives

1. Define ESD and IKS.
2. Explain the role of local knowledge in sustainable education.
3. Identify methods to integrate IKS in formal education.
4. Engage communities effectively.
5. Design culturally grounded, locally relevant lessons.

# Key Concepts

- Education for Sustainable Development (ESD)
- Indigenous Knowledge Systems (IKS)
- Cultural Relevance
- Experiential Learning
- Community Co-Creation

# What is ESD and IKS?

**Education for Sustainable Development (ESD)** equips learners with knowledge, skills, values, and attitudes to contribute to a more sustainable future.

**Indigenous Knowledge Systems (IKS)** refer to local, community-based, culturally embedded ways of understanding and interacting with the environment and society.

**Importance**:

ESD ensures that sustainability values are embedded in education. IKS ensures that solutions are **locally relevant, culturally respectful, and community-driven**.

**How to Introduce**:

Ask: “What is one traditional practice in your community that supports sustainability?”
Use a short story or video from a local context (e.g., traditional water conservation methods in Kitui or sorghum storage in Turkana).

# What is ESD?

ESD promotes learning that empowers people to act responsibly for environmental integrity, economic viability, and social equity. ESD is about learning to make **informed, ethical, and sustainable decisions**. Focuses on real-world challenges: climate change, food security, clean water, etc.

- **Why It Matters**: It builds youth leadership, critical thinking, and environmental stewardship.
- **Who Should Use It**: Schools, youth organizations, TVETs, CBOs, curriculum developers.

**Example**:A secondary school in Uganda integrates reforestation into the curriculum through practical tree-planting lessons.

- **Teaching Tip**:
  Ask learners to name an issue affecting their community. Discuss how ESD could address it.

# What are Indigenous Knowledge Systems (IKS)

IKS are traditional, community-based knowledge systems developed through generations of interaction with local environments.

1) Covers agriculture, weather forecasting, water management, herbal medicine, social harmony.
2) Rooted in **culture, language, and lived experience**.

- **Why It Matters**: IKS is practical, cost-effective, and community-owned.
- **Who Should Use It**: Community educators, researchers, program implementers, teachers, and NGOs.
- **Example**: In Northern Kenya, herders use animal behavior to predict rainfall. This is a valuable tool for climate resilience.

**Teaching Tip**: Let learners share a local traditional practice then map its sustainability value.

# Integrating ESD and IKS in Learning

This involves embedding ESD goals and Indigenous knowledge into curriculum and community education.

It involves blending modern science with local knowledge, using storytelling, music, and hands-on learning.

- **Why It Matters**:
  Builds relevance, pride, and stronger local solutions.
- **Who Should Use It**:
  Teachers, curriculum developers, adult education facilitators.
- **Example**:
  A school in Tanzania integrates traditional seed-saving techniques into science class.

**Teaching Tip**: Pair learners to design a 10-minute lesson blending ESD and IKS.

# Community Participation in ESD and IKS

ESD and IKS are most effective when communities **co-create and co-deliver** the learning.

**You should consider:**

1. Involving elders, local leaders, and youth.
2. Using local spaces (e.g., markets, farms, water points) as learning sites.

- **Why It Matters**: Ensures ownership, continuity, and respect.
- **Who Should Use It**: Community educators, NGOs, extension workers, youth groups.
- **Example**: In Kisumu, a community-based organization holds intergenerational climate talks between elders and schoolchildren.

**Teaching Tip**: Map stakeholders together and discuss how to engage them in learning.

# Designing Culturally Relevant Education Materials

Learning materials should reflect local identity, values, languages, and knowledge.

**Important to:**

a. Use local languages, proverbs, illustrations.
b. Adapt materials to local seasonal cycles and livelihoods.

**Why It Matters**: Learners relate more to content that reflects their lives and environment.

**Who Should Use It**: Education program designers, NGOs, TVET instructors.

**Example**: A Maasai speaking pastoralist education program in Narok uses drawings of camels, wells, and elders.

**Teaching Tip**: Learners develop a culturally grounded activity or learning story from their community.

# Experiential and Practical Learning Approaches

Experiential learning is a hands-on learning method where learners actively engage in real-life or simulated activities and reflect on those experiences to gain understanding. Practical learning involves applying knowledge and skills in real-world tasks or settings.

- Types of experiential/practical activities:
  - School or community gardens for climate education.
  - Waste audits or recycling activities.
  - Field visits to eco-enterprises or Indigenous sites.
  - Community mapping and environmental storytelling.
  - Participatory theater, art, or song for sustainability messages.
  - Apprenticeships with traditional craftspeople or environmental stewards.
- Learners “learn by doing” rather than only through lectures. Emphasizes reflection, problem-solving, teamwork, and relevance to local life. Builds skills, confidence, and practical knowledge of sustainability and Indigenous systems.

**Why It Matters**

- Makes ESD and IKS real, memorable, and meaningful — especially for youth and adult learners.
- Promotes critical thinking, creativity, and confidence.
- Encourages action: learners can immediately apply what they learn in their own homes, farms, or businesses.
- Supports intergenerational and community learning in culturally appropriate ways.

**Who Should Use It:** Teachers, TVET instructors, youth mentors, CBO staff, climate educators, extension officers, curriculum developers.

Example: **Kenya (Machakos)**: A secondary school develops a **student-run permaculture garden** using traditional drought-resistant crops. Students measure rainfall, manage compost, and sell surplus.

Teaching Tip: Ask: “What was the last thing you learned by doing — not by reading?”

- Facilitate a **mini design challenge**: Learners form groups and outline an experiential learning activity based on a real sustainability challenge (e.g., plastic waste, deforestation, food waste).
- Use **photos or short videos** of local experiential projects to inspire learners.

# Best Practices in Applying ESD and IKS

These are principles and strategies that make ESD and IKS more effective, inclusive, and impactful.

- **Consider:**
  - Starting small and local.
  - Respecting and compensate local knowledge holders.
  - Making content intergenerational and gender-sensitive.
- **Why It Matters**: Protects culture and increases engagement and relevance.
- **Who Should Use It**: Educators, program staff, facilitators.
- **Example**: In Ethiopia, local herbalists co-teach with health educators during school health days.

**Teaching Tip**: Ask learners to write 3 ESD/IKS “do’s and don’ts” based on their own experiences.

# Addressing Challenges in ESD and IKS Integration

Challenges include cultural resistance, generational gaps, and lack of institutional support.

- **Consider:**
  - Tips for overcoming the above: Documentation, inclusive dialogue, policy alignment, partnerships.
- **Why It Matters**: Anticipating obstacles makes your program **resilient and respectful**.
- **Who Should Use It**: Implementers, education managers, donor partners.
- **Example**:
  In Northern Uganda, youth digitalize IKS through storytelling apps bridging tech and tradition.

**Teaching Tip**: Brainstorm common barriers, then design a team “response toolkit.”

# Practical Exercise

- **Task**
  Design a short ESD+IKS learning session.
- **Steps**
  1. Choose a sustainability topic (e.g., water, food, waste).
  2. Identify relevant Indigenous knowledge.
  3. Draft objectives, content, activity, and stakeholder roles.
  4. Suggest where and how it will be delivered.
- **Output**
  One-page lesson plan + brief presentation or poster.

**Teaching Tip**: Offer a simple lesson planning template. Allow peer feedback and reflection circles.

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# Submodule 4.4

## Environmental Programs

→ **Skills:**

1. Environmental management skills.
2. Program implementation.

| **ENVIRONMENTAL PROGRAMS** |
|---|
| **Activity 1:** Implementing programs for waste reduction, energy conservation and hazardous substance management |
| **Duration:** 1 hour |
| **Learning Objectives:**<br>1. Design effective environmental programs addressing waste reduction and energy conservation.<br>2. Evaluate the impact of environmental initiatives. |
| **Methodology, Learning Devices and Resources**<br>**Methodology:** Problem-based learning, simulation exercises<br>**Learning Devices:** Project management software, environmental monitoring tools |
| **Activity and Key concepts**<br>**Activity:** Design workshops for environmental programs, case studies on waste reduction initiatives<br>**Key Concepts:** Waste reduction strategies, energy conservation practices |
| **Specific skills/ abilities developed**<br>- Environmental management skills<br>- Program implementation |
| **Assessment**<br>- Design a comprehensive environmental program with practical examples and activities based on a real-life scenario<br>- Implementation plan presentation among peers |
| **Further Readings and Best Practices**<br>"Energy Conservation in the New Millennium" by H. L. Tuller<br>"Waste Management Practices: Municipal, Hazardous, and Industrial" by David C. Wilson |

“Sustainable waste management solutions for the foodservice industry”: A Delphi study

Best practices:

Conduct regular assessments of environmental programs to measure effectiveness and identify areas for improvement.

Implement a continuous improvement process for environmental initiatives based on feedback and data analysis.

Involve community stakeholders in the design and implementation of environmental programs for greater impact.

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## Environmental Programmes

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# Learning Objectives

1. Understand components of environmental programs.
2. Apply waste and energy management strategies.
3. Design and implement simple programs.
4. Monitor and evaluate program outcomes.
5. Engage community stakeholders effectively.

# Key Concepts

- Waste Reduction Strategies (5Rs)
- Energy Conservation Practices
- Program Design and Implementation
- Monitoring & Evaluation (M&E)
- Community Involvement

# What Are Environmental Progammes

Environmental programs are planned activities or initiatives aimed at protecting or restoring the natural environment, improving resource use, and building sustainable practices at community, enterprise, or institutional levels.

**Importance:**
Environmental programs promote climate resilience, protect ecosystems, improve public health, and offer economic opportunities (e.g., through green jobs). They also help meet ESG and SDG targets.

**How to Introduce**:
Begin with: “What environmental issue is most visible in your community?”
Show examples: Waste dumps, plastic in rivers, deforestation, smoky cooking fires etc

# Understanding Environmental Programmes

Environmental programs are structured efforts to address issues like **waste, pollution, climate change, deforestation, or energy use**. Focus areas include waste reduction, afforestation, clean energy, clean-ups, recycling, water conservation.

They can be led by government, community, businesses, or youth.

- **Why It Matters**: Tackles root causes of climate change and environmental degradation at the local level.
- **Who Should Use It**: Youth movements, county environment officers, local CSOs.
- **Example**:
  In Kasarani, Nairobi, youth run a weekly market clean-up and compost food waste for sale as fertilizer.

**Teaching Tip**: Use visuals (before/after shots). Ask: “What informal environmental efforts already exist in your area?”

# Waste Reduction Strategies

These are practices that reduce the amount of waste generated, reused, or repurposed.

- **Important:**
  - Focus on the **5Rs**: Refuse, Reduce, Reuse, Recycle, Rot (compost).
  - Use of biodegradable packaging, segregation, community waste banks.
- **Why It Matters**: Reduces health hazards, conserves land, and opens up recycling business models.
- **Who Should Use It**: Waste pickers, local authorities, small traders, schools, restaurants.
- **Example**:
  In Kisumu, waste pickers collect and sort plastic waste and sell to recyclers through a youth-led digital platform.

**Teaching Tip**: Conduct a “waste audit” — what waste do we produce most? Ask during session and let all document the answers and present

# Energy Conservation Techniques

Energy conservation involves using **less energy** through efficiency or behavioral changes.

- **Talking Points**:
  - Switch to solar, use energy-saving bulbs, improve insulation, unplugging unused devices.
  - Community energy-saving education.
- **Why It Matters**: Saves money, reduces emissions, and enhances health (especially in cooking).
- **Who Should Use It**: Households, schools, businesses, factories, government offices.
- **Example**: A school in Nakuru installs solar panels, cuts energy bills by 40%, and uses savings to buy books.

**Teaching Tip**: Facilitate a walk-through to identify energy-saving opportunities in the training venue.

# Designing an Environmental Programme

This is the process of planning an environmental initiative to achieve a defined goal.

- **Consider**:
  - Design Steps: Problem identification, objective setting, stakeholder analysis, resources, indicators.
  - Align with community needs and policy priorities.
- **Why It Matters**: Good design ensures feasibility, relevance, and impact.
- **Who Should Use It**: CBOs, youth-led enterprises, county officials, donor-funded projects.
- **Example**:
  A women's group in Kakamega designs a tree-planting program targeting erosion-prone areas with local seedlings.

**Teaching Tip**: Use the "Problem-Goal-Activities-Results" logic chain. Define your problem, create a goal, design activities to achieve the goal and which all lead to the results expected

# Implementing Environmental Programmes

This process involves turning plans into **action** — from mobilization to delivery and monitoring.

- **Consider:**
  - Roles and responsibilities of each actor, staff etc
  - Timelines, budget, communications.
  - Launching pilots and scaling.
- **Why It Matters**: Proper execution ensures the plan produces visible results.
- **Who Should Use It**: Project teams, local leaders, school clubs, field officers.
- **Example**:In Uganda, a youth climate group partners with boda-boda drivers to plant trees in transport hubs and assigns members for weekly follow-up.

**Teaching Tip**: Facilitate a mini role play of launching a cleanup event.

# Monitoring and Evaluating Impact

Involves tracking what's working, what isn't, deviations from the programme and how to improve or expand (Use an M&E tool)

- **Consider:**
  - Use of baseline and endline data.
  - Key indicators: # trees planted, kg waste removed, energy saved, awareness sessions held, youth trained, jobs created etc

Methods include observation, photos, community feedback, records.

- **Why It Matters**:
  Demonstrates results, ensures accountability, supports learning.
- **Who Should Use It**:
  Program coordinators, M&E officers, youth leaders.
- **Example**:
  In Kilifi, an NGO uses drone images to monitor reforestation.

**Teaching Tip**: Use "before and after" photos to evaluate perceived impact. Use baseline and endline data from an actual project to gauge impact.

# Mobilizing Community and Stakeholders

This involves engaging all relevant people in **supporting, owning, and sustaining** the environmental program.

- **Important to:**
  - Identify stakeholders: elders, youth, schools, businesses, media.
  - Use barazas, WhatsApp groups, social media campaigns, and local champions.
- **Why It Matters**: Builds trust, generates local resources, and ensures sustainability.
- **Who Should Use It**: Everyone leading or supporting environmental change.
- **Example**:
  A community forest association (CFA) in Mt. Elgon brings together farmers, schools, and county reps for monthly awareness walks.

**Teaching Tip**: Stakeholder mapping activity: “Who are the 5 people or groups we need to engage for a clean-up drive?”

# Best Practices for Environmental Programmes

These are approaches proven to lead to **successful, impactful, and scalable environmental projects**.

- **To succeed it is important to:**
  - Start small and scale.
  - Involve youth and women and socially excluded groupsß.
  - Document and share impact stories.
  - Link to broader campaigns or goals (e.g., SDGs, ESG, climate adaptation plans).
- **Why It Matters**: Builds momentum and encourages replication.
- **Who Should Use It**: New and experienced project teams, community leaders, donors.
- **Example**:
  A clean-up project in Nakuru documented its work through TikTok and gained a corporate sponsor.

**Teaching Tip**:
Ask learners to list “3 habits of successful green initiatives” they’ve seen.

# Practical Exercise

**Task**

Design a basic environmental program for your community or workplace.

**Steps**

1. Choose a theme (e.g., waste, energy, trees, pollution).
2. Identify goals and activities.
3. Map key stakeholders and their roles.
4. Set 2–3 simple indicators for tracking impact.
5. Draft a simple implementation and communication plan.

**Expected Output**: Group presentation, visual plan (poster, flipchart, digital slides).

**Teaching Tip**: Provide a 1-page template. Use gallery walk or peer judging format.

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