

MODULES

Introduction Environmental Social Governance in Urban Planning (ESG in UP)

Kulliyyah of Architecture & Environmental Design

Learning Outcome



MLO1: Demonstrate a comprehensive understanding of ESG principles and their direct application to sustainable urban planning practices.



MLO2: Develop practical strategies to integrate ESG into urban planning processes, specifically targeting:

- Reduction of **carbon emissions** through compact, transit-oriented development
- Enhancement of **urban biodiversity** via green corridors and nature-based solutions
- Improvement of **resource efficiency** through circular economy approaches



MLO3: Prioritise urban development strategies that support business viability, attract green investment, and align with national development agendas like Malaysia Madani.

DETAIL MODULE CONTENT



Module 1. Introduction to ESG in Urban Planning

- Foundational Concept of ESG, Context & Evolution, ESG in the Cities, the How, Performance Metrics & Evaluation, Practical Implementation, Deep Dive ESG



Module 3: Social Dimensions

- ESG 101: Social Context & Principle, Identification & Prioritisation, The Practice, The Reality (Framework & Application), Synthesis & Conclusion



Module 2. Environmental Dimensions

- The WHY, ESG framework for UP, Practical strategies for Integration, Measurement, Reporting & Governance, Consolidated Case Study



Module 4: Governance Frameworks

- Defining ESG Governance in UP, Structure & Function, Core Pillars, Regulatory Framework, Implementation & Real World Application



Conclusion

- Foundation Why It Matters, National Strategic Context, The How-To, Financing & Market Adoption, Implementation & Action, Challenges & Conclusion



INTEGRITY



KNOWLEDGE



EXCELLENCE



UNITY

LEADING THE WAY
 KHALIFAH • AMĀNAH • IQRA' • RAHMATAN LIL-'ALAMIN



MEMBER OF
 UNITED NATIONS
 UNIVERSITY

I: Foundation & Definitions

What is Urban Planning?.

Defining ESG and its 101
concepts.

Key Principles and
Applications.

ESG vs. Sustainability vs. SDGs



ESG stands for **Environmental, Social, and Governance**, a framework that evaluates an organisation's sustainability through its **environmental impact (E)**, **social responsibilities (S)**, and **governance practices (G)**.



Key Pillars of ESG



Environmental (E): Focuses on **how a company acts** as a steward of nature. Examples include carbon emissions, waste management, pollution, and renewable energy use.



Social (S): Evaluates **how a company manages relationships** with employees, suppliers, customers, and communities. Examples include labor standards, data protection, and diversity.



Governance (G): Concerns **a company's leadership**, audits, internal controls, and shareholder rights. Examples include executive pay, transparency, and board composition.



ESG stands for Environmental, Social, and Governance, **a framework that evaluates an organization's sustainability through its environmental impact, social responsibilities, and governance practices.**

In urban planning, ESG integrates these principles to promote sustainable cities by **green infrastructure, equitable zoning, community engagement**, and resilient development aligned with UN Sustainable Development Goals.

ESG COMPONENTS



ENVIRONMENTAL

Environmental factors address climate impact, resource use, and pollution reduction in operations.



SOCIAL

Social aspects cover community effects, equity, and stakeholder relations.



GOVERNANCE

Governance ensures ethical leadership, accountability, and transparency.

ESG IN URBAN PLANNING



Urban planners apply ESG via zoning for density and mixed-use developments to cut sprawl and boost walkability. It supports green spaces, public transit, and inclusive policies for resilient, equitable communities. Examples include **Singapore's biodiversity integration** and **Copenhagen's carbon-neutral goals**.



What is Urban Planning?

Please refer to the Notes for the details

Urban planning

is the **technical** and **political** process of:



- Designing and managing the **growth** and **function** of cities and towns.



- Focusing on **land use**, **infrastructure**, **transportation**, **environment**, and **social** needs.



- Creating **sustainable**, **efficient**, and **livable** communities.



- Balancing **physical layout** with economic and social impacts.



- Involves **long-term strategic thinking**, public consultation, and using tools like **GIS** to shape urban development and improve the **quality of life** for residents.



Foundations of Environmental, Social & Governance (ESG) | Key frameworks: GRI Standards & SDGs | Relevance to urban planning & sustainable development



1. Foundations of ESG

ESG integrates environmental stewardship, social inclusivity, and ethical governance into decision-making to create long-term value for people, planet and prosperity.



Environmental

Managing environmental impacts and resource use for a sustainable planet.



Social

Promoting people's well-being, equity, diversity and community development.



Governance

Upholding transparency, accountability, ethics and responsible leadership.



Key Principles

- ✓ Sustainability
- ✓ Stakeholder Engagement
- ✓ Transparency
- ✓ Materiality
- ✓ Accountability
- ✓ Long-term Value

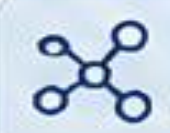


2. Key Framework: GRI Standards

The Global Reporting Initiative (GRI) provides the world's most widely used standards for sustainability reporting.



GRI Standards Structure



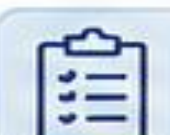
GRI Universal Standards

Apply to all organizations.



GRI Sector Standards

Provide sector-specific disclosures.



GRI Topic Standards

Cover material topics across ESG (e.g., energy, emissions, labor, communities).

Benefits of Using GRI

- Enhances transparency and credibility
- Supports comparability and benchmarking
- Helps identify risks, opportunities and impacts
- Supports informed decision-making



3. Key Framework: SDGs & Relevance to Urban Planning

The 17 Sustainable Development Goals (SDGs) are a universal blueprint for a sustainable future.



Relevance to Urban Planning & Sustainable Development

- 🏢 Guides sustainable city strategies and policies
- 👥 Promotes inclusive, resilient and low-carbon urban development
- 🌱 Supports integration of ESG factors in planning decisions
- ❤️ Enhances quality of life and intergenerational equity
- 🌐 Aligns local actions with global sustainability agendas



Key Takeaways



ESG is the foundation for sustainable and responsible development.



GRI Standards provide a robust framework for transparency and reporting.



SDGs connect global goals with local actions, driving sustainable and livable cities.

II: Context and Evolution



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HISTORY OF ESG

The evolution of Environmental, Social and Governance from idea to global mainstream.



1 KEY CONCEPT OF HISTORY OF ESG



The History of ESG traces the evolution of sustainability thinking and responsible business practices that have shaped today's ESG frameworks and standards.



2 DEFINITION AND EXPLANATION



ESG stands for Environmental, Social and Governance. It refers to the non-financial factors used to evaluate a company's impact on the environment, society and the quality of its governance.

ENVIRONMENTAL



- Climate change
- Resource use
- Pollution & waste
- Biodiversity

SOCIAL



- Employee well-being
- Community impact
- Human rights
- Diversity & inclusion

GOVERNANCE



- Board structure
- Ethics & integrity
- Transparency
- Risk management

3 APPLICATION IN URBAN PLANNING



ESG principles guide urban planning towards sustainable, inclusive and resilient cities by integrating environmental protection, social well-being and good governance in decision-making.



Low-carbon and climate-resilient urban development



Inclusive communities and improved quality of life



Transparent planning and accountable institutions



Long-term value creation for cities and stakeholders

4 MALAYSIA CONTEXT EXAMPLE



Malaysia has adopted ESG in national policies, corporate reporting and sustainable finance to support inclusive growth and long-term resilience.

– EXAMPLES IN MALAYSIA –



National Policy on Climate Change (2010)



Bursa Malaysia Sustainability Reporting Guide



Green Finance Framework by Bank Negara Malaysia



Shared Prosperity Vision 2030



Low Carbon Cities Framework & MyGreening initiatives

5 POLICY AND IMPLEMENTATION INSIGHT



Strong policies, collaboration and consistent implementation are essential to embed ESG in planning and achieve sustainable development goals.

KEY ENABLERS



Clear policies and regulations



Multi-stakeholder collaboration



Data, disclosure and transparency



Capacity building and awareness



Monitoring, evaluation and continuous improvement

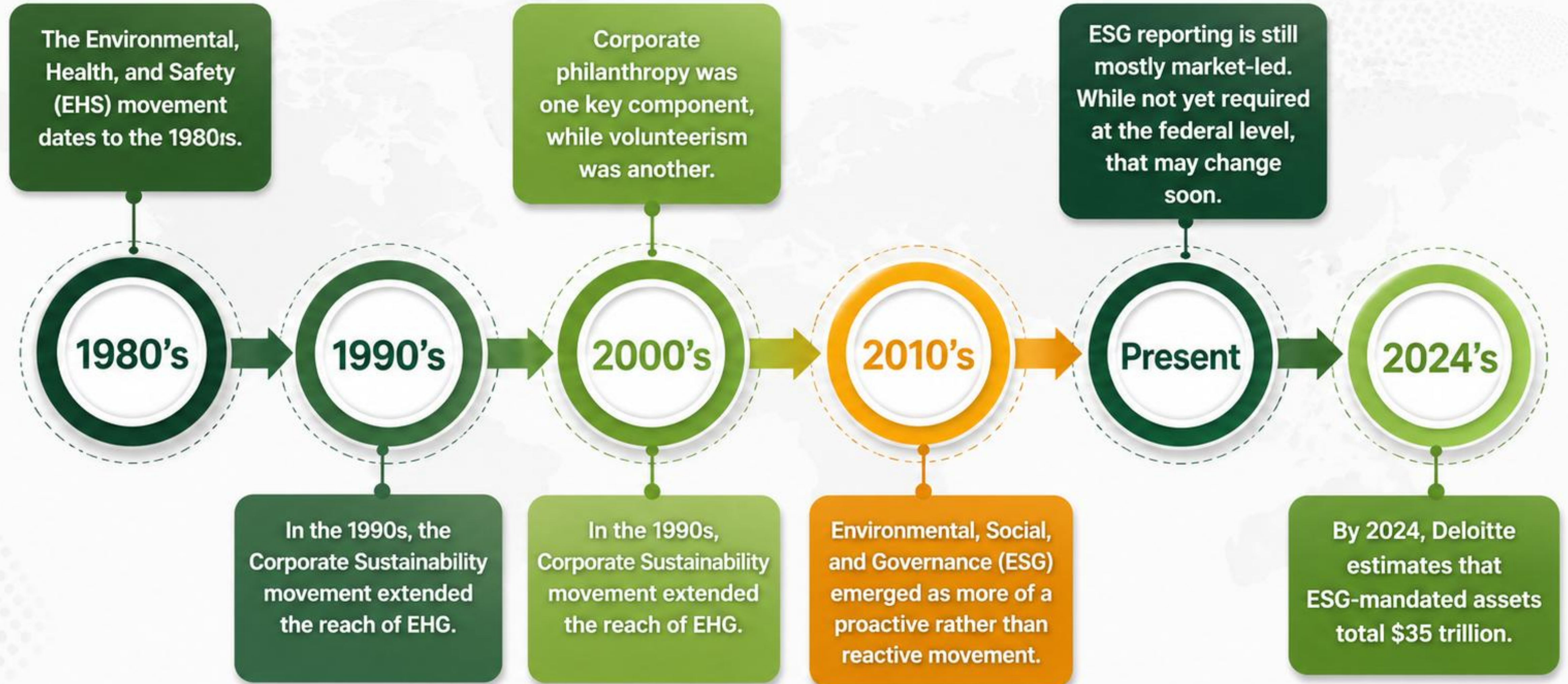


From early awareness to global integration, ESG has evolved into a key driver of responsible business and sustainable urban futures.





The Evolution of ESG





ESG: A Global Imperative



Rising **climate risks** and **social equity** demands.



Investor, citizen, and **stakeholder expectations**.



UN SDGs, Paris Agreement, GRI standards.



Public sector roles in **sustainable development** and **governance**.

PARIS CLIMATE AGREEMENT

1.



Limit the avg. global temperature increase to $< 2^{\circ}\text{C}$ centigrade + achieve net zero emissions by mid-century

2.



Enhance resilience and adaptation to climate impacts certain to occur

3.



Align financial flows in the world with these objectives

SUSTAINABLE DEVELOPMENT GOALS



Overview of Global ESG Frameworks & Reporting Standards

Key frameworks shaping ESG reporting:



- i. **GRI (Global Reporting Initiative):** widely used for sustainability disclosures.



ii. SASB (Sustainability Accounting Standards Board):
industry-specific standards.



iii. TCFD (Task Force on Climate-Related Financial Disclosures):
climate risk reporting.



Frameworks promote transparency, comparability, and accountability across sectors.



**Global
Reporting
Initiative™**



TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

ESG FRAMEWORK

A holistic approach that integrates Environmental stewardship, Social responsibility, and strong Governance to create sustainable long-term value.

Please refer to the Notes for the details



ENVIRONMENTAL

- ✓ Energy usage and efficiency
- ✓ Climate change strategy
- ✓ Waste reduction
- ✓ Biodiversity loss
- ✓ Greenhouse gas emissions
- ✓ Carbon footprint reduction



SOCIAL

- ✓ Fair pay and living wages
- ✓ Equal employment opportunity
- ✓ Employee benefits
- ✓ Workplace health and safety
- ✓ Community engagement
- ✓ Responsible supply chain partnerships
- ✓ Adhering to labor laws



GOVERNANCE

- ✓ Corporate governance
- ✓ Risk management
- ✓ Compliance
- ✓ Ethical business practices
- ✓ Avoiding conflicts of interest
- ✓ Accounting integrity and transparency

III: The Case for ESG in Cities (The "Why")



CHALLENGES IN CITIES

Understanding today's urban challenges to build resilient, inclusive and sustainable cities.

1 KEY CONCEPT OF CHALLENGES IN CITIES



Cities face complex and interconnected challenges that affect quality of life, environment, economy and governance. Addressing these challenges is essential for sustainable urban development.

2 DEFINITION AND EXPLANATION



Challenges in cities refer to the social, economic, environmental and institutional issues that hinder effective urban functioning and future readiness.

They require **integrated solutions** and strong **collaboration**.

3 APPLICATION IN URBAN PLANNING



Helps identify key urban issues and their root causes



Supports data-driven planning and priority setting



Encourages integrated and cross-sectoral solutions



Improves resilience and community well-being



4 MALAYSIA CONTEXT EXAMPLE



Rapid urbanisation and population growth



Traffic congestion and inadequate public transport



Affordable housing shortage



Environmental degradation and flood risk



Economic inequality and uneven development

Examples in Malaysia:

- Congestion in Kuala Lumpur
- Flooding in Klang Valley
- Air pollution episodes
- Urban sprawl and land scarcity
- Social and economic disparities



5 POLICY AND IMPLEMENTATION INSIGHT



Strengthen urban governance and coordination



Invest in sustainable infrastructure and public services



Promote inclusive and equitable development



Advance green, low-carbon and climate-resilient cities



Leverage technology and innovation for smarter solutions

KEY SUCCESS FACTORS

- ✓ Evidence-based planning
- ✓ Stakeholder engagement
- ✓ Adequate funding
- ✓ Strong institutions and policy consistency
- ✓ Continuous monitoring and evaluation

THE WAY FORWARD

Cities can overcome challenges through collaboration, innovation and a shared vision for a better urban future.



Collaborate across sectors



Innovate and adapt



Plan for sustainability



Put people and communities first



Build resilient and future-ready cities

REAL-WORLD ESG CHALLENGES IN MALAYSIA

URBAN & BUILT ENVIRONMENT

Malaysia is facing concrete sustainability challenges that directly relate to urban planning.



E ENVIRONMENTAL

Reduce environmental impact and build climate resilience



S SOCIAL

Create liveable, inclusive and equitable cities



G GOVERNANCE

Strengthen transparency, accountability and ESG integration

KEY ESG CHALLENGES IN MALAYSIA'S URBAN & BUILT ENVIRONMENT



a) CLIMATE AND URBAN DEVELOPMENT PRESSURES



Net-zero commitment by 2050

Malaysia has committed to net-zero carbon emissions by 2050, placing pressure on cities and the construction sector to adopt ESG practices.



b) URBAN SECTORS MUST NOW INTEGRATE ESG PRACTICES



Carbon reduction is now a priority

Construction and infrastructure projects must reduce embodied and operational carbon through low-carbon design, materials and energy efficiency.



ESG in Urban Planning

- **Environmental, Social, and Governance (ESG)** principles in urban planning act as **a comprehensive framework** to transition from traditional development to sustainable, resilient, and equitable city-making. It moves urban planning beyond mere land use, integrating long-term environmental responsibility, social well-being, and transparent governance into the core of city design.

- **Function of ESG in Urban Planning**
ESG functions as a transformative tool that reshapes how cities manage growth, reduce risk, and create value.

- **Environmental (E) – Resilient Infrastructure & Green Foundations**



Climate Resilience: Designing flood-resistant housing, water-sensitive urban design (e.g., Rotterdam water plazas), and natural ecosystems like wetlands.



Resource Efficiency: Implementing green building standards, renewable energy integration (solar/wind), and waste management.



Carbon Footprint Reduction: Developing accessible public transportation and mixed-use developments to reduce reliance on vehicles.





Social (S)

Inclusive Communities
& Well-being



Social Equity:

Ensuring equitable access to resources, affordable housing programs, and public healthcare services.



Community Engagement:

Involving local populations in development decisions to prevent displacement and ensure social inclusion.



Quality of Life:

Enhancing public spaces, public safety, and public health.



Governance (G)

Transparent Management
& Accountability



Policy & Zoning:

Implementing clear zoning laws and regulatory frameworks that prioritize sustainable development.



Data-Driven Decision Making:

Using ESG metrics (GRI, SASB) to track progress, ensure transparency, and manage non-financial risks.



Public-Private Partnerships (PPPs):

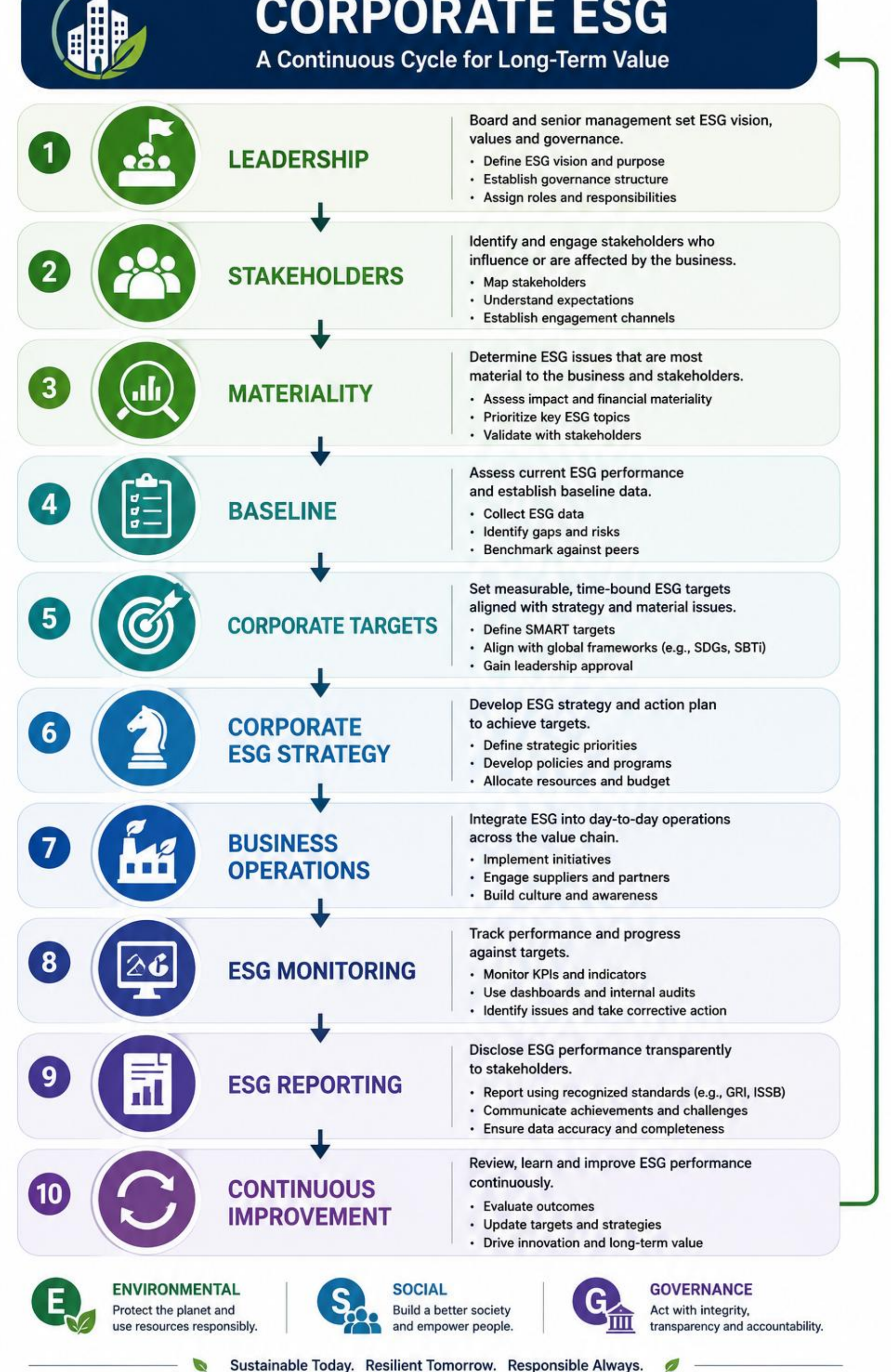
Fostering collaboration between government, developers, and investors for financial sustainability.

IV: Frameworks and Mechanics (The "How")



ESG Implementation Framework

Please refer to the Notes for the details





CORPORATE ESG

A Continuous Cycle for Long-Term Value

1



LEADERSHIP

Board and senior management set ESG vision, values and governance.

- Define ESG vision and purpose
- Establish governance structure
- Assign roles and responsibilities



2



STAKEHOLDERS

Identify and engage stakeholders who influence or are affected by the business.

- Map stakeholders
- Understand expectations
- Establish engagement channels



3



MATERIALITY

Determine ESG issues that are most material to the business and stakeholders.

- Assess impact and financial materiality
- Prioritize key ESG topics
- Validate with stakeholders



4



BASELINE

Assess current ESG performance and establish baseline data.

- Collect ESG data
- Identify gaps and risks
- Benchmark against peers



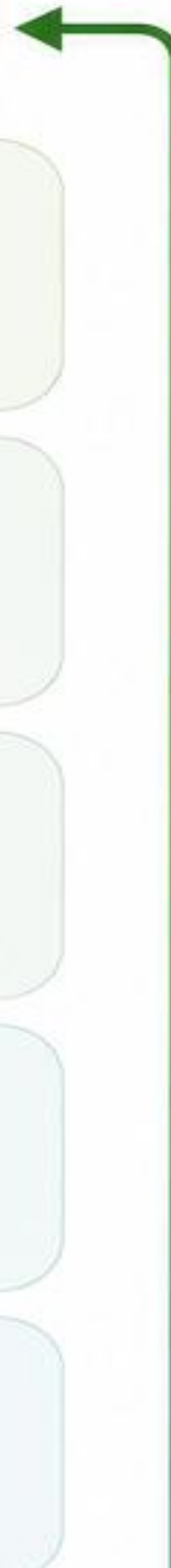
5



CORPORATE TARGETS

Set measurable, time-bound ESG targets aligned with strategy and material issues.

- Define SMART targets
- Align with global frameworks (e.g., SDGs, SBTi)
- Gain leadership approval





ENVIRONMENTAL
Protect the planet and
use resources responsibly.



SOCIAL
Build a better society
and empower people.



GOVERNANCE
Act with integrity,
transparency and accountability.



Sustainable Today. Resilient Tomorrow. Responsible Always.



ESG in Urban Planning - Implementation Framework



Please refer to the Notes for the details

URBAN PLANNING ESG

A CONTINUOUS CYCLE FOR SUSTAINABLE, RESILIENT & INCLUSIVE CITIES





THE ESG PILLARS IN URBAN PLANNING



ENVIRONMENTAL

Protect natural resources, reduce emissions, build climate resilience, enhance biodiversity and green infrastructure.



SOCIAL

Create inclusive, healthy, safe and vibrant communities with equitable access to housing, mobility and services.



GOVERNANCE

Ensure transparent, accountable and participatory decision-making with strong institutions and ethical governance.

Sustainable Cities. Better Lives. Stronger Future.

V: Performance Metrics and Indicators

ESG MATERIALITY ASSESSMENT

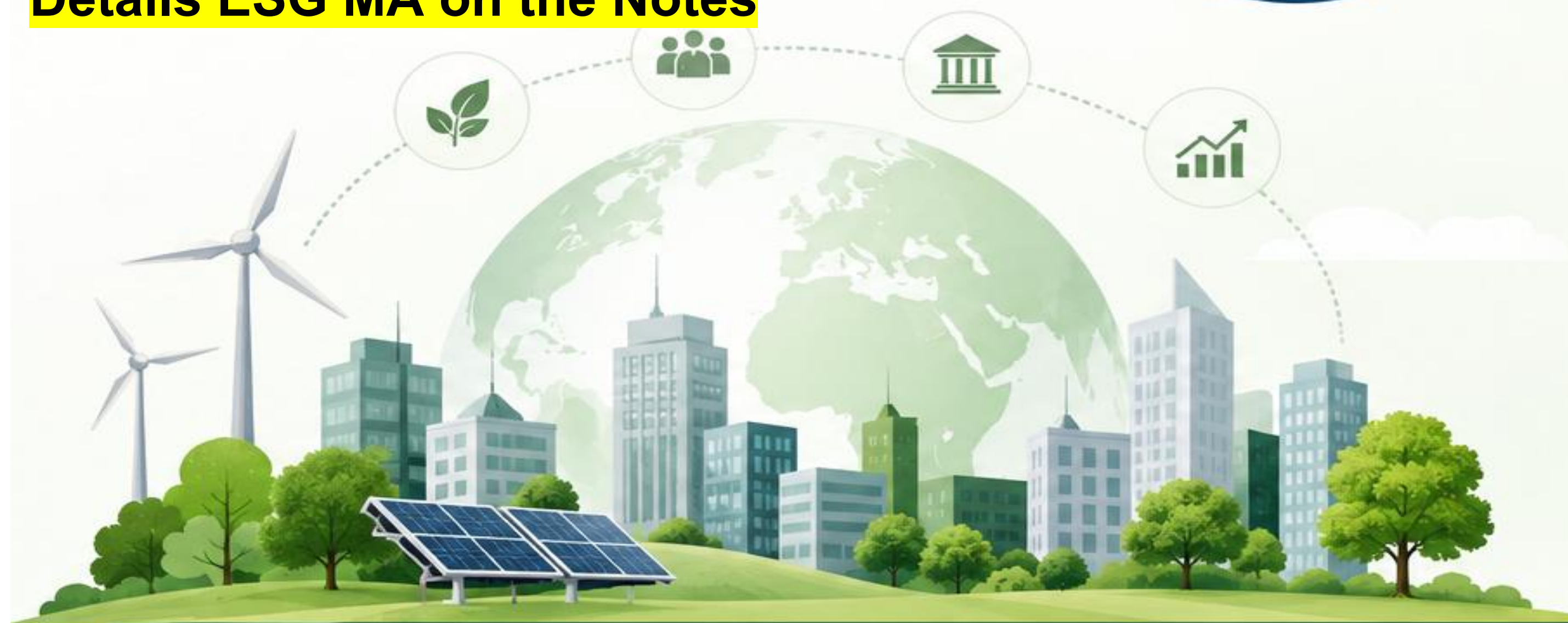
Identifying What Matters Most for Sustainable Business Success

DEFINITION

An ESG Materiality Assessment is a strategic process used by organizations to identify, evaluate, and prioritize Environmental, Social, and Governance (ESG) issues that are most significant to both the business and its stakeholders.



Details ESG MA on the Notes



WHY IS IT IMPORTANT?

ESG encompasses a wide range of topics, making it challenging for organizations to address everything simultaneously.

Materiality Assessment Helps Organizations To:



FOCUS RESOURCES EFFECTIVELY

Concentrate on high-priority ESG issues.



MITIGATE RISKS

Identify emerging environmental, social, and governance risks.



CREATE BUSINESS VALUE

Align sustainability initiatives with organizational goals.



MEET STAKEHOLDER EXPECTATIONS

Understand concerns of investors, customers, employees, regulators, and communities.



IMPROVE SUSTAINABILITY REPORTING

Enhance transparency and disclosure quality.



A materiality assessment is the blueprint for focused action, stronger resilience, and long-term sustainable success.



Focus on
What Matters



Reduce
Risks



Drive
Value



Build Trust
& Transparency

MATERIALITY ASSESSMENT (MA) IN URBAN PLANNING

DIFFERENT FROM CORPORATE ESG MA

From Organisational Impact to Community Impact



CORPORATE ESG MATERIALITY ASSESMENT

Focuses on identifying ESG issues that are most significant to a single organisation and its stakeholders, affecting its business value, risks, and performance.



VS.



MATERIALITY ASSESSMENT IN URBAN PLANNING

Focuses on identifying sustainability issues that are most significant to a city, community, development project, or planning area and its diverse stakeholders.



WHAT IS MATERIALITY ASSESSMENT IN URBAN PLANNING?

1

Which ESG issues have the greatest impact on urban sustainability outcomes.



2

A materiality assessment helps planners determine:

Which issues are most important to stakeholders.



3

Which issues should be prioritised in planning policies, investments, and development decisions.



WHY IT MATTERS FOR CITIES AND COMMUNITIES



Focuses resources on what truly drives sustainable urban outcomes.



Identifies and manages environmental, social, and governance risks early.



Strengthens stakeholder engagement and trust.



Supports resilient, inclusive, and liveable cities.



Guides better policies, investments, and development decisions.



Urban Planning MA looks beyond the organisation— **it builds better cities for people, planet, and future generations.**

ESG INDICATORS FOR MATERIALITY ASSESSMENT IN URBAN PLANNING

Environmental Dimension



MATERIAL ISSUE		INDICATOR	UNIT OF MEASUREMENT	
	FLOOD RISK	Flood-prone area		% of development area
		Number of flood events		Events/year
		Population exposed to flooding		Persons or households
	GHG EMISSIONS	Carbon emissions		tCO ₂ e/year
		Emissions intensity		tCO ₂ e/capita/year
	ENERGY EFFICIENCY	Renewable energy contribution		% of total energy
		Energy consumption		kWh/capita/year
	WATER RESOURCES	Water consumption		Litres/capita/day
		Non-revenue water		%
	WATER QUALITY	River Water Quality Index (WQI)		WQI Score
	BIODIVERSITY	Green space provision		m ² /person
		Ecologically sensitive area protected		ha or %
		Tree canopy cover		%
	AIR QUALITY	PM _{2.5} concentration		µg/m ³
		Air Pollution Index		API Score
	URBAN HEAT ISLAND	Surface temperature difference		°C
	WASTE MANAGEMENT	Waste generation		kg/person/day
		Recycling rate		%

SOCIAL (S) INDICATORS FOR ESG MATERIALITY ASSESSMENT

IN URBAN PLANNING



MATERIAL ISSUE		INDICATOR	UNIT OF MEASUREMENT
	AFFORDABLE HOUSING	Affordable housing units	% of total units
		Housing affordability ratio	Median house price / median income
	ACCESSIBILITY	Population within 500 m of public transport	%
		Walkability Index	Index score
		Universal access facilities	% of public facilities
	PUBLIC HEALTH	Green space accessibility	% population within 400 m of park
		Healthcare access	Clinics/hospitals per 10,000 population
	COMMUNITY WELLBEING	Resident satisfaction	Survey score (1–5)
		Crime rate	Cases per 1,000 population
	EMPLOYMENT	Local employment rate	%
		Jobs-housing ratio	Ratio
	EDUCATION	School accessibility	Schools per 10,000 population
	HERITAGE CONSERVATION	Heritage assets protected	Number or %
	SOCIAL INCLUSION	Participation in public consultation	Number of participants
	ROAD SAFETY	Traffic accident rate	Cases per <u>10,000</u> population



These social indicators help urban planners identify and prioritize issues that impact people’s quality of life, equity, and inclusive development.



Healthier Communities



Inclusive & Equitable Cities



Safer Neighborhoods



Stronger Local Economies

GOVERNANCE (G) INDICATORS FOR ESG MATERIALITY ASSESSMENT IN URBAN PLANNING



MATERIAL ISSUE		INDICATOR	UNIT OF MEASUREMENT	
	PUBLIC PARTICIPATION	Number of stakeholder engagement sessions		Sessions/year
		Stakeholder participation rate		%
	TRANSPARENCY	Public disclosure of planning documents		% available online
	REGULATORY COMPLIANCE	Planning compliance rate		%
	ANTI-CORRUPTION	Corruption complaints investigated		Cases/year
	GOVERNANCE EFFICIENCY	Planning approval processing time		Days
	ACCOUNTABILITY	ESG reporting frequency		Reports/year
	DATA TRANSPARENCY	Open data availability		% datasets published
	INSTITUTIONAL CAPACITY	Staff trained in ESG and sustainability		% of staff
	RISK MANAGEMENT	Climate risk assessments completed		Number



Strong governance drives transparent, accountable and resilient urban development, building trust and long-term value for communities.



Engaged Stakeholders



Transparent Processes



Compliant & Ethical



Efficient Governance



Resilient Cities



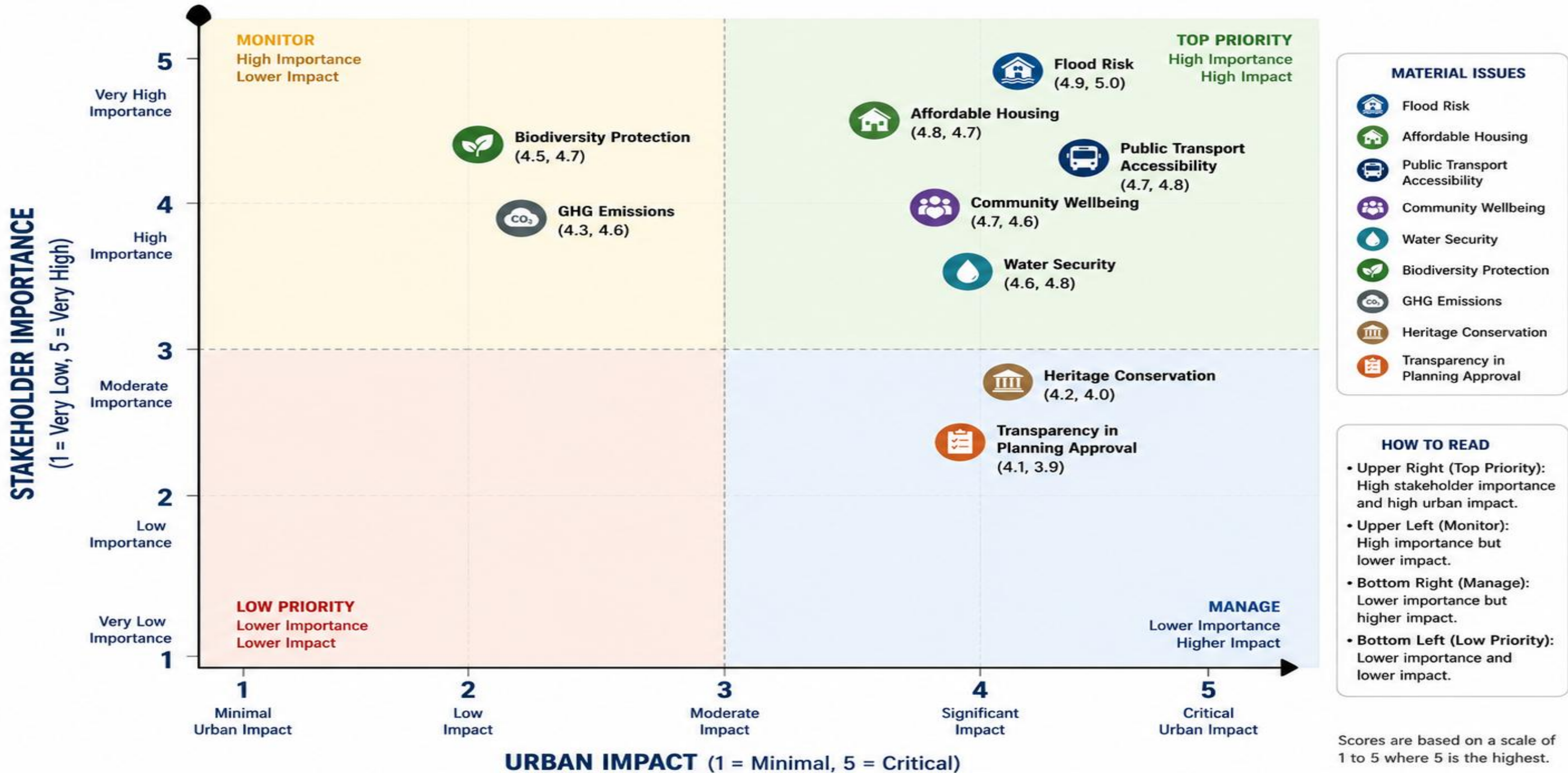
Open Data, Better Decisions

MALAYSIAN TOWNSHIP ESG MATERIALITY ASSESSMENT

Stakeholder Importance and Urban Impact Scoring (Scale 1–5)

MATERIAL ISSUE	 STAKEHOLDER IMPORTANCE (1-5)	 URBAN IMPACT (1-5)
 Flood Risk	4.9	5.0
 Affordable Housing	4.8	4.7
 Public Transport Accessibility	4.7	4.8
 Community Wellbeing	4.7	4.6
 Water Security	4.6	4.8
 Biodiversity Protection	4.5	4.7
 GHG Emissions	4.3	4.6
 Heritage Conservation	4.2	4.0
 Transparency in Planning Approval	4.1	3.9

MALAYSIAN TOWNSHIP ESG MATERIALITY ASSESSMENT



This materiality assessment helps identify and prioritise ESG issues that matter most to stakeholders and have the greatest impact on the township's sustainable future.

A PLANNING-FOCUSED MALAYSIAN ESG MATERIALITY MATRIX

For a Malaysian township today, the likely outcome would look like:



MOST MATERIAL URBAN ESG ISSUES IN MALAYSIA

- Flood Risk and Climate Resilience
- Affordable Housing
- Public Transport and Accessibility
- Water Resource Protection
- Biodiversity Conservation
- Community Health and Wellbeing
- Climate Change Mitigation (GHG Emissions)
- Transparency in Development Approval Processes



Integrating ESG priorities into urban planning to build resilient, inclusive and sustainable townships for Malaysia's future.



ENVIRONMENTAL
Resilient ecosystems and climate action



SOCIAL
Inclusive, healthy and connected communities



GOVERNANCE
Transparent, accountable and participatory planning



SUPPORTING MALAYSIA'S SDGs AND NET ZERO ASPIRATIONS

- **VI: Practical Implementation & Governance**

How ESG is Implemented (Regulations, Funding, Monitoring).

Actors and Stakeholders (Who takes the lead?).

The Role of Local Authorities (PBT) in Malaysia.

Usage Examples and Case Studies (Toronto, NYC, Singapore)



The diagram features a central circular arrangement of four icons connected by curved arrows in a clockwise cycle. The icons represent: 1) A green circle with a white leaf (Environment), 2) A teal circle with a white group of three people (Social), 3) A blue circle with a white classical building facade (Governance), and 4) A light blue circle with a white city skyline (Urban Planning). A larger, semi-transparent circle in the background also contains a city skyline icon. The background of the slide shows a stylized cityscape with modern buildings, green trees, and two wind turbines on the left. A decorative grid of dots is in the top right corner, and a four-pointed star is in the bottom right corner.

How does **ESG** integrate with urban planning?

In urban planning, ESG integrates these principles to promote **sustainable cities** by guiding decisions on **green infrastructure**, **equitable zoning**, **community engagement**, and **resilient development** aligned with the **United Nation Sustainable Development Goals (SDGs)**.



Key ESG Principles and Their Applications

DEFINITION & KEY CONCEPTS



- **ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG)**
 - Criteria for ethical and sustainable operations
 - Critical frameworks for transparency and accountability

ESG APPLICATIONS IN URBAN PLANNING



- Sustainable infrastructure design
- Equitable public spaces
- Strong governance for urban projects

MALAYSIAN CONTEXT EXAMPLE



- Applying ESG standards to local projects, e.g.,
 - * Low-Carbon City Frameworks
 - * Green Building Certifications

POLICY & IMPLEMENTATION INSIGHTS



- Insights into policy formulation
- Key performance indicators (KPIs)
- Effective implementation strategies

How ESG is Implemented in Urban Planning

- 
01 Regulations: Cities create laws and codes, such as building emission standards or waste reduction regulations, to enforce ESG goals.
- 
02 Strategic Planning: Integrating ESG targets into city masterplans, such as Singapore's Green Plan, which includes pillars like Energy Reset and City in Nature.
- 
03 Funding and Financing: Allocating resources to sustainable infrastructure, green buildings, and renewable energy projects.
- 
04 Service Provision: Delivering services that support environmental and social targets — e.g., electric vehicle charging infrastructure or inclusive digital city services.
- 
05 Monitoring and Reporting: Tracking compliance and progress on ESG criteria ensures accountability and continuous improvement.



Urban planners use several mechanisms to align development with **ESG goals**:



Environmental (E)

- ✓ Integration of **green infrastructure** (parks, green roofs, vertical gardens) to mitigate the urban heat island effect and manage stormwater.
- ✓ Promotion of **renewable energy** through technologies like solar panels on transit stop canopies and energy-efficient building standards.



Social (S)

- ✓ Enhancing **social equity** by improving access to jobs, healthcare, and education for populations without private vehicles.
- ✓ Fostering **public health** through increased physical activity from walkable and bike-friendly streetscapes.



Governance (G)

- ✓ Implementation of **regulatory tools** such as zoning reforms, density requirements, and urban containment boundaries.
- ✓ Utilization of **financial incentives**, green bonds, and public-private partnerships to fund sustainable infrastructure.



ESG USAGE IN URBAN PLANNING



INVESTMENT SCREENING



Investors use ESG scores to identify **resilient companies**, often preferring those with strong ESG performance to **mitigate risk**.



INVESTMENT SCREENING

Investors use ESG scores to identify **resilient companies**, often preferring those with strong ESG performance to **mitigate risk**.



SUSTAINABILITY REPORTING

Companies publish **ESG or sustainability reports** to disclose their impact on stakeholders.



RISK MANAGEMENT

Firms use ESG metrics to identify **non-financial risks** that could impact their bottom line.



BRAND LOYALTY

Companies adopt ESG initiatives to **improve reputation** and meet consumer demand for ethical practices.



WHY PBT ARE IDEAL FOR ESG ASSESSMENT IN MALAYSIA



Mandated public service delivery under Local Government Act 1976



Direct interface with communities & urban systems



Control over land use, infrastructure, and services



Ability to drive local sustainable development outcomes





Who Takes the Lead in ESG Urban Planning?



Implementing ESG in urban planning requires a multi-stakeholder approach, but the lead is typically taken by a **partnership between the public sector and private development leaders**.



Municipal Governments & Policymakers (The Primary Lead)

- City councils, planners, and urban authorities drive the overarching vision, zoning regulations, and building codes. They are responsible for setting mandatory ESG reporting standards and adopting Green Accounting practices to ensure municipal accountability.



Private Developers & Investors

- Real estate developers and investment firms are crucial in funding and executing sustainable infrastructure, such as green buildings and smart cities. Investors are increasingly demanding ESG compliance to manage risks and attract capital, making them key catalysts for green construction and sustainable technology.



Specialized Consultants & Professionals

- ESG consultants, architects, and environmental planners work hand-in-hand with developers to design and audit projects, ensuring compliance with environmental standards and sustainable practices. They provide expertise in carbon management, energy reduction, and social impact assessments.



Community Stakeholders & NGOs

- Local community groups play an essential role in engagement, ensuring that social equity and local needs are represented in the planning process.



Local Authorities (PBT) as Key Drivers for ESG Implementation

• Context: Malaysia Governance Framework •



Local Authorities (Pihak Berkuasa Tempatan – PBT) under:

- Federal Department of Town and Country Planning (**PLANMalaysia**)
- Ministry of Housing and Local Government Malaysia (**KPKT**)

play a central role in implementing ESG at the **urban scale**.



PLANMalaysia
Perancangan Melangkaui Kelaziman



Environmental (E)

- **Urban planning & land use control** (Local Plans, Structure Plans)
- **Environmental** protection & urban forestry
- **Drainage**, flood mitigation & climate adaptation
- **Solid waste** management & sanitation
- **Sustainable** infrastructure & green spaces



Social (S)

- **Affordable housing** & urban poverty alleviation (PPR)
- **Public health**, sanitation & community wellbeing
- **Inclusive** public amenities (parks, transport, lighting)
- **Cultural heritage** & community development
- **Social inclusion** (B40 groups, elderly, disabled)



Governance (G)

- **Regulatory control** (planning permission, building approval)
- **Enforcement** & compliance monitoring
- **Public finance management** & service delivery
- **Data governance** (urban statistics, smart city systems)
- **Stakeholder engagement** & participatory planning



Why PBT are Ideal for ESG Assessment in Malaysia

- ✓ Mandated public service delivery under Local Government Act 1976
- ✓ Direct interface with communities & urban systems



Key Insight (Malaysia ESG Reality)

Malaysia's ESG implementation is strongly institutionalised at policy level, but effectiveness depends on local authority capacity, resources, and leadership.





Organizations Responsible for ESG in Urban Planning

ESG (Environmental, Social, and Governance) integration into urban planning involves applying ESG principles to create more sustainable, resilient, and equitable cities, addressing:

- Achieving net-zero emissions through clean energy, waste management, and green infrastructure
- Ensuring inclusive access to urban services and participation



Organizations Responsible



City and Local Governments

are primarily responsible for integrating ESG in urban planning via regulations, strategic city-wide plans, financing, and monitoring.

- ✓ They also provide essential services aligned with ESG.



National Governments

set broad policies and frameworks that guide local urban planning with ESG objectives.

- ✓ National Governments



Public-Private Partnerships (PPPs)

involving developers, technology firms, and financial institutions support ESG goals through innovation, investment, and project implementation.



Sustainability Teams or ESG Boards

Specialized within organizations may oversee ESG alignment and strategy.





 Pillar	 Focus	 Key Lead
 Environmental	 Green Infra, Net-Zero, Resilience	 City Planners, Sustainability Consultants
 Social	 Inclusion, Affordable Housing, Safety	 Municipal Government, NGOs
 Governance	 Transparency, Policy, Finance	 Municipal Government, Investors

HOW URBAN PLANNING ALTERS THE ESG ASSESSMENT

When an urban planner or property developer runs a materiality assessment, the standard corporate questions change. They must focus on the physical, long-term impact on a piece of land and its future residents.



	STANDARD COMPANY FOCUS	URBAN PLANNER / PROPERTY DEVELOPER FOCUS
E ENVIRONMENTAL 	 Focuses on office paper waste and business travel emissions.	 Focuses on flood mitigation, biodiversity loss from clearing land, and long-term energy grids for the whole township.
S SOCIAL 	 Focuses on office ergonomics and corporate charity.	 Focuses on affordable housing mix, walkability, public safety design, and indigenous or local community displacement.
G GOVERNANCE 	 Focuses on internal board diversity and shareholder voting.	 Focuses on anti-corruption in land acquisition, public town hall approvals, and transparent government tender processes.



THE SHIFT IN PERSPECTIVE

From managing a company's operational footprint to shaping the long-term sustainability, resilience, and livability of places and communities.





Examples :



- **New York City's** Local Law 97 for reducing building emissions.



- **Singapore's** Green Plan driving sustainable development.



- **Dubai's** initiatives for electric vehicle adoption.



- **Cities** also engage communities for participatory governance to ensure social inclusivity in ESG application.

FORUM IN FOCUS

11 ways cities can adopt an ESG approach to development and management

Jan 10, 2023



<https://www.weforum.org/stories/2023/01/davos23-cities-adopt-esg-development-management/>

City of Toronto Environmental, Social & Governance (ESG) Performance Report

Building a sustainable, equitable
and resilient Toronto for all.



INTERNATIONAL STANDARD

ISO 37120

Sustainable cities
and communities

Indicators for city services
and quality of life



ISO 37120

*Indicators for City Services and
Quality of Life*

The 1st ISO Standard for cities WCCD
is implementing this global first in more
than **100 cities** across **35 countries**.

INTERNATIONAL STANDARD

ISO 37122

Sustainable cities
and communities

Indicators for smart cities



ISO 37122

Indicators for Smart Cities

Cities globally are becoming early
adopters and demonstrating that
data is the essential starting point
for Smart Cities tracking data
that is citizen focused.

INTERNATIONAL STANDARD

ISO 37123

Sustainable cities
and communities

Indicators for resilient cities



ISO 37123

Indicators for Resilient Cities

Cities globally are becoming early
adopters and demonstrating that
data is instrumental in building
more resilient cities to plan for, and
recover from, shocks and stresses.

VII: Deep Dives (Modules 2–4)

Environmental Dimension Deep Dive

Social Dimension Deep Dive.

Governance Frameworks Deep Dive.

Module 2: Environmental Dimensions



Key
environmental
issues in urban
planning



Sustainable
resource
management



The Importance of Sustainable Cities and ESG Investing in Urban Development



Cities produce over **70%**
of global emissions.



Sustainable cities address
challenges like **climate change**,
urbanization, and
resource management.



Transitioning cities into
sustainable hubs is critical for
climate goals and **social equity**.



Malaysia Climate Policy 2.0 supports the Net Zero Emission target by 2050.



- Hence, **sources of carbon emissions** that come from transportation, waste generation and energy consumption in buildings need to be **mitigated**.



- As cities become the main **source of GHG emissions**, planning to lower carbon emissions becomes **crucial**.

Malaysia Updates **Climate Policy** to Achieve 2030 Carbon Goals

Supporting Net Zero and Climate Change Act by 2025

National Climate Change Policy 2.0



Aims for a **45% reduction** in economy-wide carbon intensity by 2030 (compared to 2005 levels)



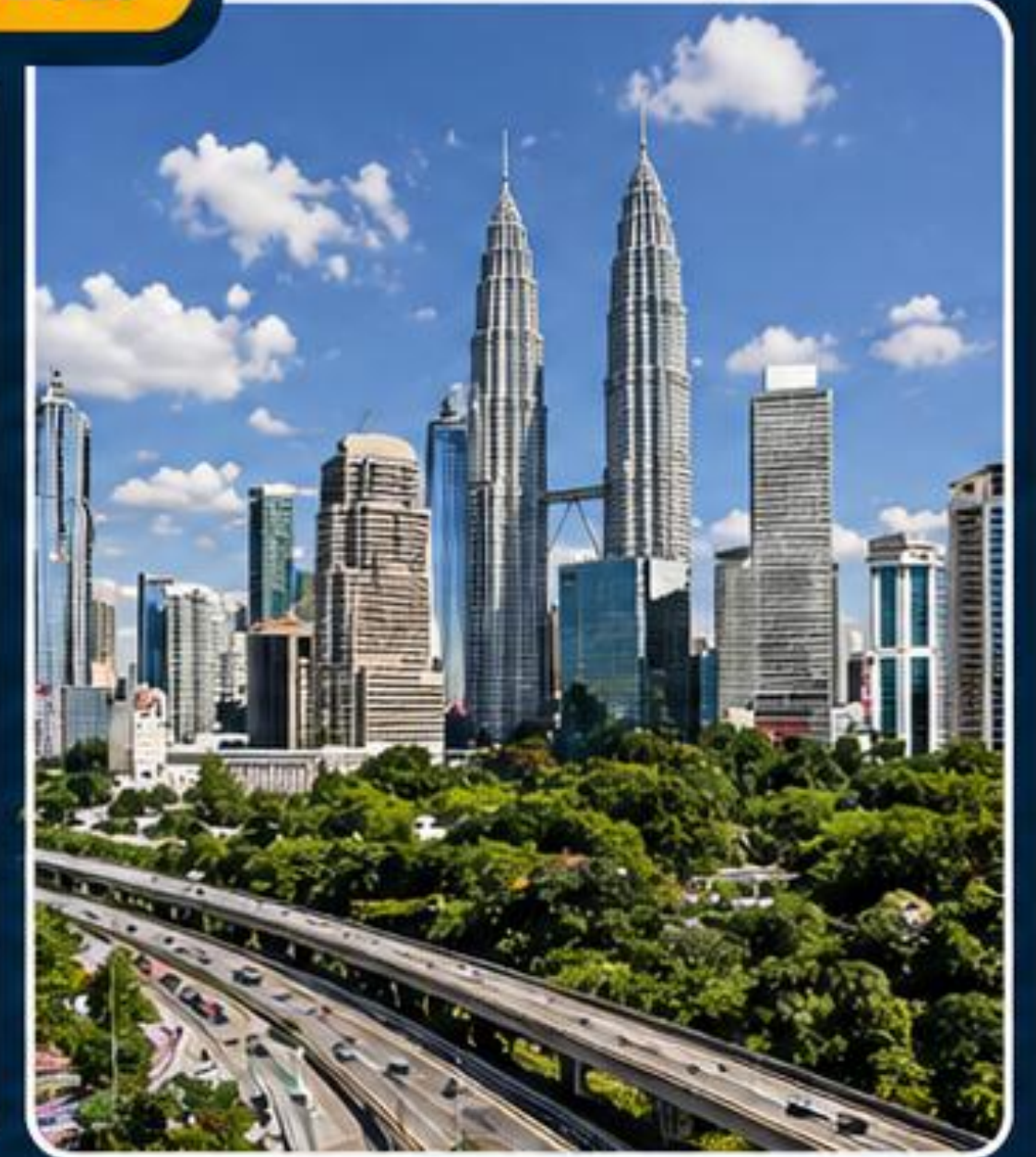
Sets a clear roadmap towards achieving **net-zero greenhouse gas emissions by 2050**



Introduces guidelines for **governance, low-carbon development, climate adaptation, and financing**



Malaysia to highlight its climate initiatives at UNFCCC's **COP29, November 2024**

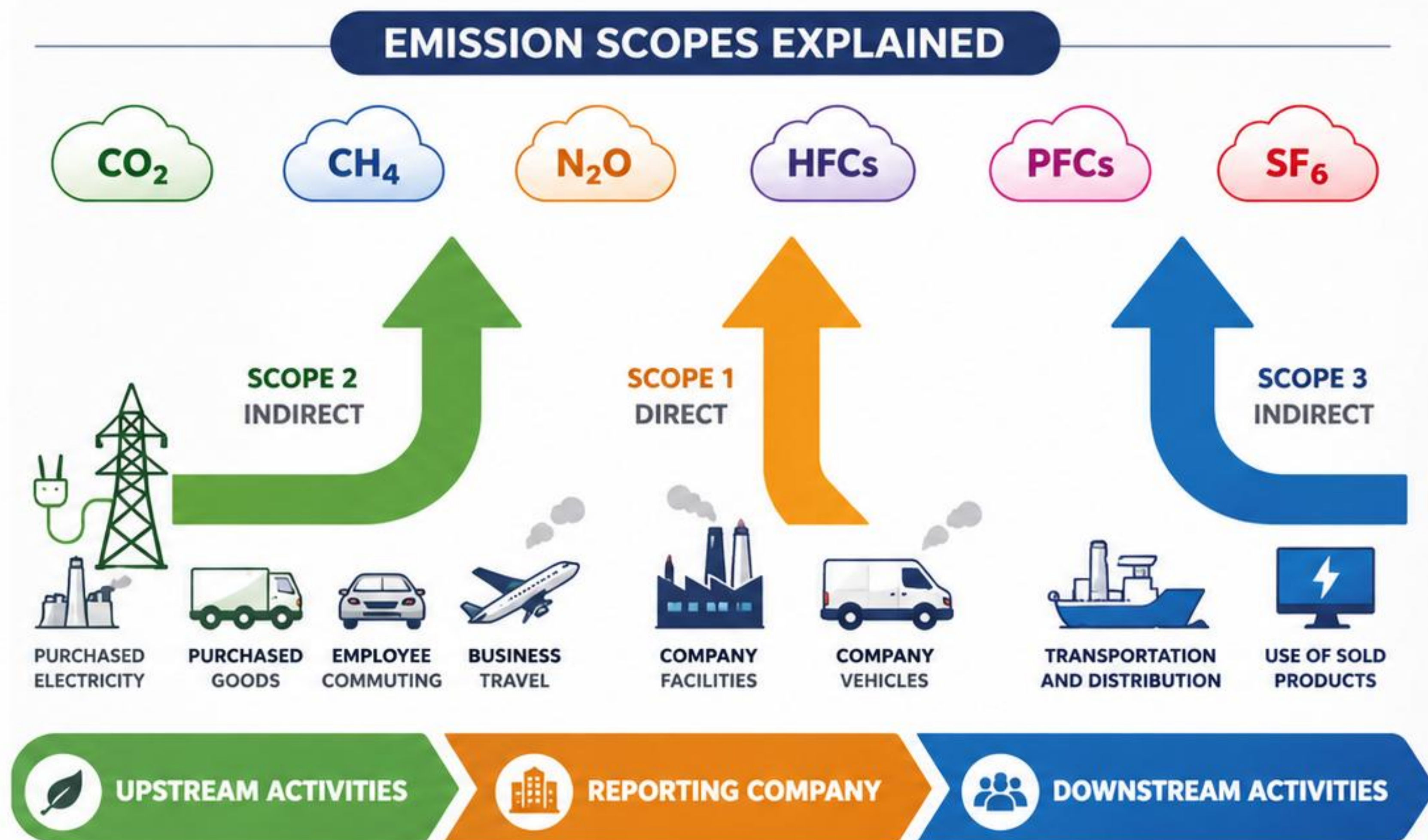


Malaysia Updates Climate Policy 2.0, Aims for a **45% reduction** in economy-wide carbon intensity by **2030** (compared to 2005 levels)
Sets a clear roadmap towards achieving **net-zero greenhouse gas emissions by 2050**

Why Environmental Dimension of ESG matters in urban planning?

According to the UN, cities account for between **60% and 80% of energy consumption** and generate as much as **70%** of human-induced greenhouse gas emissions, primarily through the **consumption of fossil fuels** for energy supply and transportation.

Scope of Greenhouse Gas (GHG) Emissions



Most of the urban infrastructure and public facilities, i.e waste management, energy in the building, transport emits GHGs.



Environmental Impact:



- **Green Infrastructure:** Incorporate green spaces, such as parks and green roofs, to improve air quality, reduce the urban heat island effect, and enhance biodiversity.



- **Land Use:** Consider the impact of the project on natural habitats, arable land, and biodiversity, and prioritize sustainable land use planning.



Environmental Sustainability



- ESG frameworks enable cities to implement **green infrastructure**, **renewable energy systems**, and **sustainable transportation**, thereby reducing their carbon footprint.



- Urban planning guided by ESG principles prioritises **climate resilience** through measures such as *energy-efficient buildings, urban greening, and waste management*.



A. INVESTMENT OPPORTUNITIES

The IFC reports that cities in Europe and Central Asia alone could attract **\$1.2 trillion** in climate-related investments.



B. PUBLIC-PRIVATE PARTNERSHIPS (PPPs)

PPPs leverage private investments to fund green infrastructure.



C. DATA-DRIVEN DECISION MAKING

Cities use GHG inventories to identify emissions sources. Accurate data ensures targeted investments in sustainability initiatives.



Urban Planning related project need to consider the environmental impact

ENVIRONMENTAL IMPACT

Assessing environmental factors is essential to build sustainable, resilient, and liveable cities.



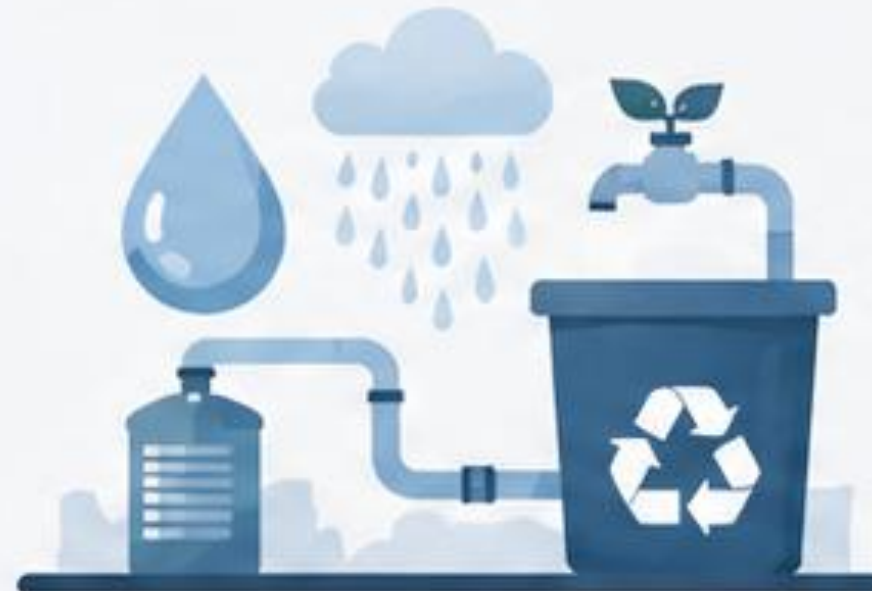
CARBON FOOTPRINT



- ✓ Evaluate the project's carbon emissions from construction, operation, and transportation, and implement strategies to **reduce them**, such as using renewable energy and low-carbon materials.



WATER USAGE



- ✓ Assess water consumption throughout the project lifecycle and implement **water-saving measures** like rainwater harvesting and greywater recycling.



WASTE MANAGEMENT



- ✓ Design waste management systems that **minimize waste generation, maximize recycling and reuse**, and promote a **circular economy**.



ENVIRONMENTAL

- ✓ GHG Emissions
- ✓ Biodiversity
- ✓ Waste & Water Management
- ✓ Use of Natural Resources



SOCIAL

- ✓ Diversity & Inclusion
- ✓ Consumer Protections
- ✓ Community Support

ESG

GOVERNANCE

- ✓ Business Ethics
- ✓ Corruption
- ✓ Accounting Transparency
- ✓ Management Structure
- ✓ Employee Relations



Integrating environmental considerations in urban planning ensures long-term **sustainability, resource efficiency, and better outcomes** for people and the planet.



Module 3: Social Dimensions

i. Social equity and inclusion in urban development

ii. Community engagement strategies



Social Equity



Accessibility

- Ensure the project is accessible to all residents, including those with disabilities, and consider the needs of diverse communities.



Inclusive infrastructure
for an accessible city



Social Inclusion

- Promote social equity by ensuring affordable housing options, access to quality education and healthcare, and safe and vibrant public spaces.



Equitable opportunities
for all communities



Social Inclusivity

Creating Equitable Urban Environments for All

Social inclusivity aims to create equitable urban environments where **all population groups** have access to resources and opportunities.



Participatory Planning

- Engage diverse community members in planning and decision-making processes.



Mixed-Use Development

- Design compact urban areas that offer housing, jobs, leisure and recreation together.



Equitable Resource Access

- Provide equitable access to services like education, healthcare, and public spaces.



Module 4: Governance Frameworks



Governance structures in urban planning



Ethical decision-making and transparency



Regulatory compliance and standards



Stakeholder Engagement



Governance & Transparency

Ensuring Ethical and Accountable Urban Projects



TRANSPARENCY

Promote **transparency** in decision-making processes and ensure **accountability** of all stakeholders involved in the project.



ETHICAL DECISION-MAKING

Adhere to **ethical standards** in all aspects of the project, including land acquisition, construction, and operation.



STAKEHOLDER ENGAGEMENT

Engage diverse community members throughout the planning process to ensure **inclusive participation** and shared ownership.



REGULATORY COMPLIANCE

Ensure compliance with applicable laws, policies, and standards to promote **responsible** and **sustainable urban** development.





i. Transparency: Promote transparency in decision-making processes and ensure accountability of all stakeholders involved in the project.



ii. Ethical Decision-Making: Adhere to ethical standards in all aspects of the project, including land acquisition, construction, and operation.



iii. Compliance: Ensure the project complies with all relevant regulations and legal requirements.



iv. Stakeholder Engagement: Actively engage with stakeholders, including residents, businesses, and government agencies, to build consensus and address concerns.



Compliance & Stakeholder Engagement



COMPLIANCE

Ensure the project complies with all relevant regulations and legal requirements.

- ✓ All relevant regulations
- ✓ Legal requirements



STAKEHOLDER ENGAGEMENT

Actively engage with stakeholders, including residents, businesses, and government agencies, to build consensus and address concerns.

- ✓ Residents
- ✓ Businesses
- ✓ Government agencies
- ✓ Build consensus and address concerns



ETHICAL DECISION-MAKING

Adhere to ethical standards in all aspects of the project, including land acquisition, construction, and operation.



VIII: Conclusion & Engagement

Summary Introduction of ESG.

Activity 1: Relevance to Work Life.

Reading Materials.



SUMMARY INTRODUCTION OF ESG



This training program integrates **Environmental, Social, and Governance (ESG)** principles into urban planning to foster sustainable development and build resilient, inclusive, and future-ready cities.

FOUR FOUNDATIONAL LEARNING MODULES

1



FOUNDATIONAL CONCEPTS

Introduces ESG principles, their relevance in urban planning, and the pathway towards sustainable development.

2



ECOLOGICAL PROTECTION

Focuses on environmental stewardship, resource efficiency, biodiversity conservation, and climate resilience.

3



SOCIAL EQUITY

Emphasises inclusive communities, health, safety, access to services, and enhancing quality of life for all.

4



REGULATORY FRAMEWORKS

Covers policies, laws, ethics, and governance structures that ensure transparency, accountability, and responsible decision-making.



GLOBAL STANDARDS AS GUIDING TOOLS

Highlights the role of global standards such as the United Nations Sustainable Development Goals (SDGs) and GRI reporting in measuring impact, enhancing transparency, and driving sustainable progress.



DATA FOR RESILIENT CITIES

Emphasises how data-driven frameworks and reporting standards are essential tools for informed decision-making and building resilient urban systems.



MALAYSIA'S NATIONAL POLICIES IN ACTION

Showcases Malaysia's national policies and initiatives as practical examples of aligning local development with international sustainability mandates.



MEASURING WHAT MATTERS

Defines ESG as the data-driven mechanism used to measure performance and achieve the broader objectives of long-term environmental stewardship and ethical leadership.



ESG is more than a framework – it is a commitment to data-driven decisions, sustainable growth, and ethical leadership for a better future for people and the planet.





Reading Material



Reference Article:

World Economic Forum –
“11 ways cities can adopt an ESG
approach to development
and management”



Read more at:

[https://www.weforum.org/stories/2023/01/davos23-cities-adopt-esg-development-management/#:~:text=An%20environmental%2C%20social%2C%20governance%20\(with%20national%20objectives%20and%20directives](https://www.weforum.org/stories/2023/01/davos23-cities-adopt-esg-development-management/#:~:text=An%20environmental%2C%20social%2C%20governance%20(with%20national%20objectives%20and%20directives)



This article highlights how cities can integrate ESG principles into governance, planning, funding, and service delivery.



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What an ESG-based approach means to a city

An ESG-based approach to a city encompasses ESG-related actions to be taken by local governments across three core and typical city government roles which are: regulations, strategic planning, funding/financing, service provision and monitoring.

Importance of city governmental roles



Regulations: In a survey conducted by PwC in the Middle East, 86% of large companies said increased ESG regulation would strengthen and accelerate the implementation of their own ESG strategies.



Strategic planning: Typically, city governments are tasked with the formulation of city-wide strategic plans and masterplans, aligned with national objectives and directives.



Funding/financing: Cities have a key role to **ensure the efficient allocation of financial resources** to promote sustainable economic growth and address key urban challenges.



Service provision: Local, regional and city governments are fundamentally **service providers for sectors significantly responsible for emissions**.

Ideal for ESG Integration in City-Making

This course is designed for urban planners, architects, policymakers, sustainability consultants, property developers, municipal officers, and postgraduate students who want to master ESG integration in city-making.





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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
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