

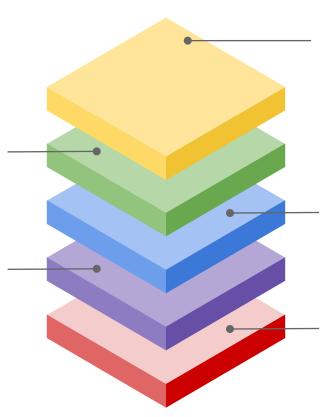
Main drivers of sustainable infrastructure

Econ. recovery & job creation

Sustainable infrastructure is a key strategy to build -back-better in the post-pandemic context.

New technologies & innovation

Electrification of the transportation sector, renewable energy, or Naturebased Solutions (NbS) are some of the key drivers to implement more sustainable infrastructures.



Climate change & resilience

Infrastructure accounts for 70% of the total GHG emissions. Sustainable infrastructure is one of the key strategies for adaptation & mitigation.

Improved social well -being & equity

Sustainable infrastructures provide more environmentally responsible and socially inclusive services.

Shifting urbanization patterns & migration

Rural-to-urban migration & shifting urbanization pattern has increased the demand of infrastructure services.

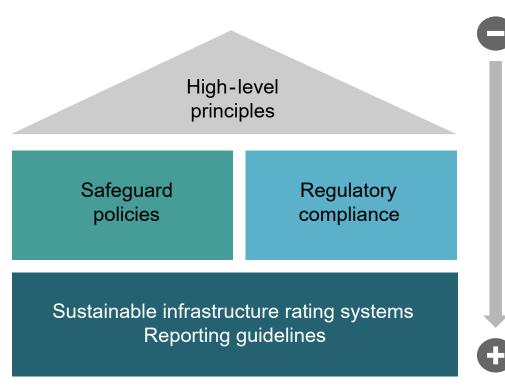
Landscape of sustainability initiatives

Provide aspirational lines of action at the global scale, these are in most cases published by international groups.

Ej. G20 Principles for Quality Infrastructure Investment (QII)

Focused mostly on environmental and social considerations. These define minimum requirements and are mostly focused on risk mitigation (do-not-harm). Ej. (IFC) Performance Standards and the Equator Principles

Voluntary frameworks focused on sustainability performance (beyond minimum and legal compliance). Ej. Envision Rating System or Global Reporting Initiative (GRI)



Cross comparative analysis methodology

These frameworks analized are:

- Indicator Pan European Strategic Framework
- 2. MDB Common Set of Aligned Sustainable Infrastructure Indicators (SII)
- 3. UNEP International Good Practice Principles for Sustainable Infrastructure
- 4. The G20 principles for Quality Infrastructure Investment
- 5. Fast-Infra
- 6. EU Taxonomy for Sustainable Activities

- These frameworks represent initiatives developed by the public, and private sector as well as international groups and Multilateral Development Banks.
- The **respective criteria** from the different frameworks have been organized around **four main categories**:
 - 1. Environmental sustainability & resilience
 - 2. Social sustainability,
 - 3. Institutional sustainability
 - 4. Economic and financial sustainability.

Indicators

CATEGORIES	

INDICATORS

Environmental sustainability and resilience

- 1. Climate change adaptation and mitigation
 - GHG emission reduction
 - Disaster risk reduction strategies
- 2. Environmental conservation and biodiversity protection
 - Biodiversity protection
 - Ecosystem services protection
- 3. Circular Economy

Social sustainability

- 4. Gender equality and empowerment
- 5. Life-cycle cost accounting
- 6. Access to basic services

Institutional sustainability

7. Transparency and anticorruption

Econ/ financial sustainability

8. Sustainable investment

Results

CATEGORIES	INDICATORS		
Environmental sustainability and resilience	 Climate change adaptation and mitigation GHG emission reduction Disaster risk reduction strategies Environmental conservation and biodiversity protection Biodiversity protection (Aichi Biodiversity) Ecosystem services protection (land degradation) Circular Economy (construction and demolition waste) 		
Social sustainability	 4. Gender equality and empowerment (Employment gap) 5. Life-cycle cost accounting (Cost-Benefit Analysis) 6. Access to basic services (water, sanitation, electricity, mobile network) 		
Institutional sustainability	7. Transparency and anticorruption		
Econ/ financial sustainability	8. Sustainable investment	1	

Key messages (1/2)

- There is a global effort to consolidate indicators defining what is sustainable infrastructure. However, some of the key aspects are already agreed upon.
- New approaches to infrastructure (Nature-based solutions ...) and its benefits (eg. ecosystem services ...) are to this date not well covered by existing literature. New data-gathering efforts would be necessary.
- Targeted efforts are required to mainstream gender in infrastructure . The current approach is focused on the employment gap, however a broader view of the incorporation of gender diversity, as <u>users</u>, <u>workers</u> and <u>decision-makers</u> is required.
- The life-cycle approach to infrastructure development is often time not fully considered. This limits the implementation of circular economy strategies, life cycle cost accounting, and consideration of externalities.

Key messages (2/2)

HIGH LEVEL:

- Sustainable Infrastructure investment has been recognized as one of the most impactful strategies to build back better in the post COVID recovery. The lack of sustainable infrastructure pipelines, the lack of capacity, and the urgency to boost economic development and job creation around the world are pushing decision-makers to move towards business as usual projects instead.
- Sustainable infrastructure is at the core of delivering on the 2030 Agenda, as more than 70% of its targets are related directly and indirectly to infrastructure development.



Appendix- Cross comparative analysis

Core elements Frameworks	Environmental sustainability and resilience	Social sustainability	Institutional sustainability	Economic and financial sustainability
Pan-European Strategic Framework	 Natural capital Ecosystem services sustainable production patterns 	Healthy living & well-being Sustainable consumption Public participation	 Externalities & natural capital Green & fair trade 	Externalities & natural capital Green and decent jobs, & human capital
MDB Common Set of Aligned Sustainable Infrastructure Indicators (SII)	GHG reduction Climate risk, resilience Biodiversity Pollution control & moni. Efficient use of materials Energy & water efficiency	 Access and affordability Stakeholder engagement Human & labor rights Disability & special needs Gender integration Health & safety 	 Anti corruption protocols & procedures Corporate sustainability disclosure 	Positive economic & social return (ERR) Job creation
UNEP International Good Practice Principles for Sustainable Infra.	Resilience Environmental impacts and nature	• Equity inclusiveness & empowerment	 Lifecycle assessment Strategic planning Transparent, inclusive & evidence-based decision-making 	Fiscal sustainability & innovative finance Enhancing economic benefits
The G20 principles for Quality Infrastructure Investment		Community Development Stakeholder engagement Displacement female jobs	 Participatory project identification, Procurement standards Conflict of interest and ethics Sustainability Certification 	ROR/contingencies Training and education Permanent & construction jobs
Fast-Infra		Stakeholder Engagement Human & Labour Rights Land Acquisition & Resettlement Mitigation Gender & Inclusivity Health & Safety	 Sustainability & Compliance Policies Anti-corruption Policies & Procedures Transparency & Accountability 	Embedding Government Policies for Project Fiscal Transparency & Procedures
EU Taxonomy for Sustainable Activities	Climate change mitigation Climate change adaptation Biodiversity and ecosystems. Pollution and control Circular economy Water and marine resources			