ECONOMIST IMPACT

Infrastructure for Good

Methodology report

Supported by Deloitte.

Research partner Duke NICHOLAS INSTITUTE *for* ENERGY, ENVIRONMENT & SUSTAINABILITY

Contents

Section I: Background

About the barometer

The Infrastructure for Good (IFG) barometer was developed by Economist Impact and supported by Deloitte and Duke University's Nicholas Institute for Energy, Environment & Sustainability. It examines the capacity of 30 countries to sustainably deliver efficient and quality infrastructure that addresses critical economic, social and environmental needs.

Infrastructure can and should benefit individuals, communities, future generations and the environment. This can be achieved in many ways, including through social impact, equity, opportunity, sustainability, resilience and prosperity. For infrastructure to succeed as a force for good, purposeful planning, well-regulated systems, and sustainable and responsible financing are required.

The IFG barometer benchmarks progress in these areas at the country level, allowing users to compare infrastructure environments and outcomes across 30 of the largest infrastructure markets around the world. While some project-level data are used (where available and applicable), the analysis primarily focuses on country dynamics, outcomes and policy frameworks. This focus on the systemic side emphasizes that a country's mix of policies, incentives and investments play a significant role in enabling the development of infrastructure that benefits society and improves quality of life.

Barometer development and expert consultations

Following the initial research and a review of existing data and studies, Economist Impact interviewed a diverse group of infrastructure experts to gather recommendations for the barometer. These stakeholders represented perspectives and priorities from various regions, organizations, sectors and areas of expertise.

Building on these discussions, Economist Impact convened an advisory panel in December 2022 to discuss the barometer's potential indicators. This meeting included 10–15 infrastructure experts from different stakeholder groups including academia, private investment firms, sustainability consultancies, advisory services, governmental infrastructure bodies, PPP experts and engineering firms. The objective of the discussion was to define *infrastructure for good*, review the proposed indicator framework, understand which drivers enable good infrastructure and discuss how to measure them effectively.

This discussion resulted in two key takeaways. The first recommendation was to focus more on pursuing positive infrastructure outcomes and less on avoiding negative ones or meeting baseline expectations. The second area of consensus was that the barometer should focus both on the foundations/enablers that lead to good infrastructure as well as the specific positive outcomes that are created as a result.

Pilot program

A two-country pilot program (focused on Australia and India) was implemented to validate the indicator framework prior to beginning data collection and analysis across the 30 countries. The pilot process tested how these countries performed across the indicators, how accessible the data were and how effective the scoring systems were. Subsequent adjustments were incorporated into the final version of the indicator framework.

Country coverage

In total, 30 countries were selected based on economic size, regional diversity, scope of infrastructure investment and data availability.

Americas	Asia and the Pacific	Europe	MENA/Africa
Argentina	Australia	Belgium	Egypt
Brazil	China	France	Kenya
Canada	India	Germany	Nigeria
Mexico	Indonesia	Ireland	Saudi Arabia
United States	Japan	Italy	South Africa
	South Korea	Netherlands	Turkey
	Thailand	Norway	
		Poland	
		Spain	
		Sweden	
		Switzerland	
		United Kingdom	

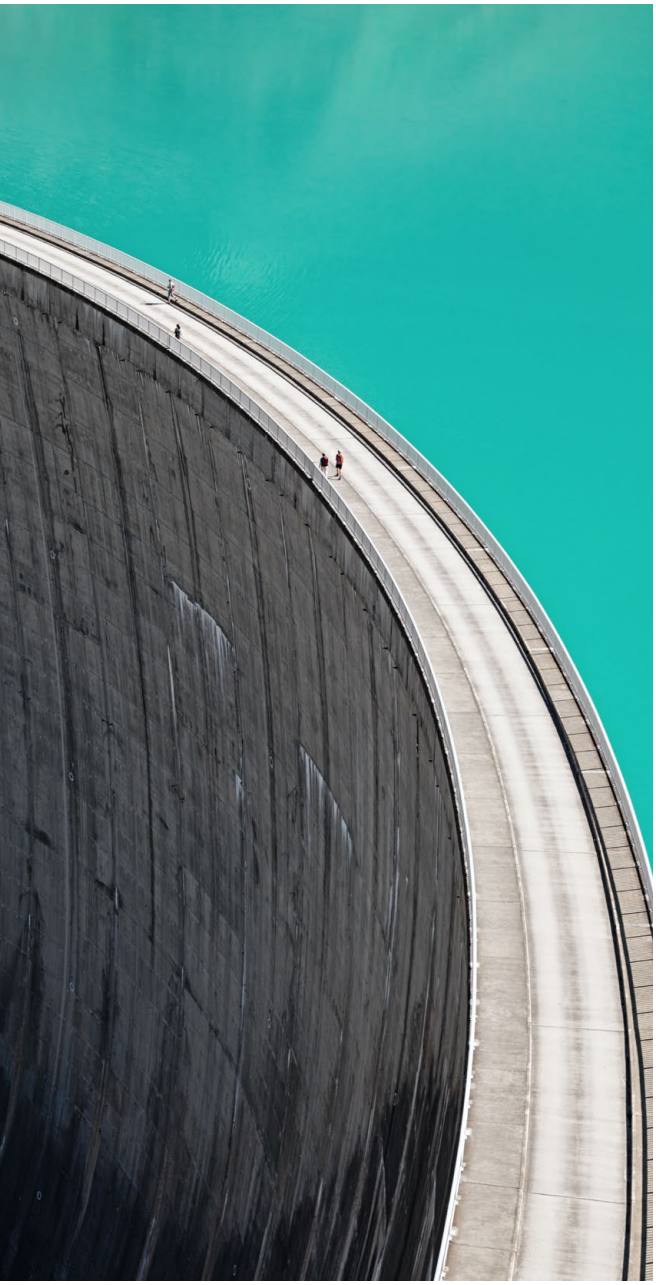
Sectoral coverage

Throughout the barometer and report, "infrastructure" refers to systemic assets in five major sectors, listed below. It does not refer to residential or commercial buildings such as housing or offices. Infrastructure may be developed through public initiatives, private investment or a mix (such as public-private partnerships).

- **Transport**: refers to ports, airports, roads, highways and rail.
- **Energy**: refers to energy generation, specifically electricity. Energy generation concessions may be indefinite or fixed term. *We do not cover energy extraction in the evaluation of this sector*.
- **Water/waste**: refers to drinking water, sanitation and solid waste management projects.
- **ICT**: refers to information communications technologies (eg, telecom networks, broadband projects).
- **Social**: refers to education (schools), healthcare (hospitals, etc) and other public facilities (municipal infrastructure and prisons).

The barometer usually considers all five sectors collectively when assessing a country's infrastructure environment. However, the methodology also allows for flexibility when assessing indicators for which regulations/institutions tend to be sector-specific. There are also several indicators that focus solely on one sector (a list is provided in the following section).

Section II: Structure of the barometer



Category overview

The Infrastructure for Good barometer covers five main pillars, which encompass 20 distinct indicator groups (four per pillar). Each of the five pillars are described below:

1. ***Governance and Planning:*** the quality of governance can either encourage or prevent effective investment in infrastructure. This category examines regulatory effectiveness, private sector engagement, planning and coordination, and implementation and outcomes.
2. ***Sustainable Financing and Investment:*** this category explores the financial drivers enabling infrastructure for good. These include the adequacy of investment, financing for social good, viability support and de-risking, and fiscal sustainability.
3. ***Social and Community Impact:*** this category examines whether a country's infrastructure ecosystem contributes to social well-being. The main subcategories are social assessments and progress, community engagement and support, protections for workers and communities, and access to public services and utilities.
4. ***Economic Benefits and Empowerment:*** this category gauges the tangible economic contributions of a country's infrastructure environment. It considers connectivity and participation, economic opportunity and job creation, local industry and economy, and innovation and productivity.
5. ***Environmental Sustainability and Resilience:*** this category assesses how infrastructure supports positive environmental outcomes. It examines environmental management, resilience and adaptation, environmental impacts, and climate mitigation and decarbonization.

Indicator overview

The Infrastructure for Good barometer includes both quantitative and qualitative indicators. The index comprises 64 indicators in total (some of which include distinct sub-indicators):

Quantitative indicators: 33 of the indicators are based on existing quantitative data sources. For example, such an indicator might examine the proportion of the population having convenient access to public transport.

Qualitative indicators: 29 of the indicators are based on qualitative assessments of each country's infrastructure ecosystem. For example, such an indicator might examine whether legislation requires consultations with diverse communities prior to beginning a new project. The scoring for qualitative indicators is based on evidence obtained by researching local laws and regulations, as well as examining specialized reports, frameworks and policy guidelines.

Mixed indicators: two of the indicators include both quantitative data and qualitative assessments.

Sector-specific suggestions and areas for future research

Sector-specific scoring

The barometer's objective is to measure a country's infrastructure ecosystem at a broad, cross-sectoral level. Although it considers five sectors as part of the overall assessment, most indicators are scored with a collective perspective (not differentiating between different types of infrastructure).

Some indicators and sub-indicators, however, do examine sector-specific trends where applicable and where data are available. These include the following:

Transport

- 4.1.1a) Access to public transport
- 4.1.1b) Traffic index
- 4.1.2) Trade connectivity and efficiency
- 5.3.4c) Transportation: emissions per capita
- 5.4.1b) Mitigation targets: transport
- 5.4.1e) Policies: transport
- 5.4.1h) Adaptation commitments: transport

Energy

- 3.4.2a) Access to electricity
- 3.4.2b) Affordability of electricity
- 3.4.2c) Primary reliance on clean fuels/ technology
- 4.2.2) Clean energy job impacts
- 5.3.4a) Electricity/heat: emissions per user
- 5.4.1a) Mitigation targets: energy
- 5.4.1d) Policies: energy
- 5.4.1g) Adaptation commitments: energy
- 5.4.4) Renewables projects share of infrastructure investment

Water and sanitation

- 3.4.3a) Access to safe drinking water
- 3.4.3b) Access to safely managed sanitation services
- 3.4.3c) Wastewater flows safely treated
- 5.3.4d) Waste: emissions per capita
- 5.4.1c) Mitigation targets: water/waste
- 5.4.1f) Policies: water/waste
- 5.4.1i) Adaptation commitments: water/ waste

Information communication technology (ICT)

- 4.1.3a) Fixed broadband subscriptions
- 4.1.3b) Average broadband connection speed
- 4.1.3c) Mobile network coverage
- 4.1.3d) Cost of mobile data
- 4.1.3e) Internet freedom, privacy and digital rights

Social infrastructure

- 3.4.1a) Hospital beds per 1,000 people
- 3.4.1b) Births attended by skilled health staff, %
- 3.4.1c) Universal/partial healthcare coverage
- 3.4.1d) Children out of school (% of primary school age)
- 4.2.3) Gender gap in labor participation

Beyond these, several other indicators listed below have the potential to be analyzed at a more granular sector level. Although sector-specific data for these does not factor into the barometer's scores, we do provide sectoral disaggregation for them as "background data" in the barometer workbook.

It should be noted that sample sizes at the sector level are often low. As a result, the time window has been extended to the past ten years for the sector-specific versions of 2.1.2, 2.2.1, 2.2.2 and 2.3.2, but each data point should still be interpreted with caution.

- 1.4.2) Project delays
- 1.4.3) Project cancellations
- 2.1.1) Infrastructure gap
- 2.1.2) Complementary sources of financing
- 2.2.1) Outcome-linked financing
- 2.2.2) Green project financing
- 2.3.2) Bankability support and MDB participation

Processes versus outcomes

Structurally, the barometer is organized into major thematic areas, with each theme containing a mix of process-related indicators (such as policies, regulations, institutional environments) and outcome-related indicators (such as measures of success or prevalence).

We recognize that some researchers may be interested in understanding patterns related to processes and outcomes. For convenience, we provide the following list, which shows the indicators that may fall into each group:

Process-related indicators

- All indicators in Pillar 1 except 1.2.3, 1.4.2, 1.4.3 and 1.4.4
- All indicators in Pillar 2 except 2.1.1, 2.1.2, 2.2.1, 2.2.2 and 2.3.2
- All indicators in Pillar 3 except 3.1.3, 3.4.1, 3.4.2 and 3.4.3
- 4.3.1) Local companies and SMEs
- 4.3.2) Skill development and job training
- All indicators in Pillar 5 except 5.3.2, 5.3.4 and 5.4.4

Outcome-related indicators

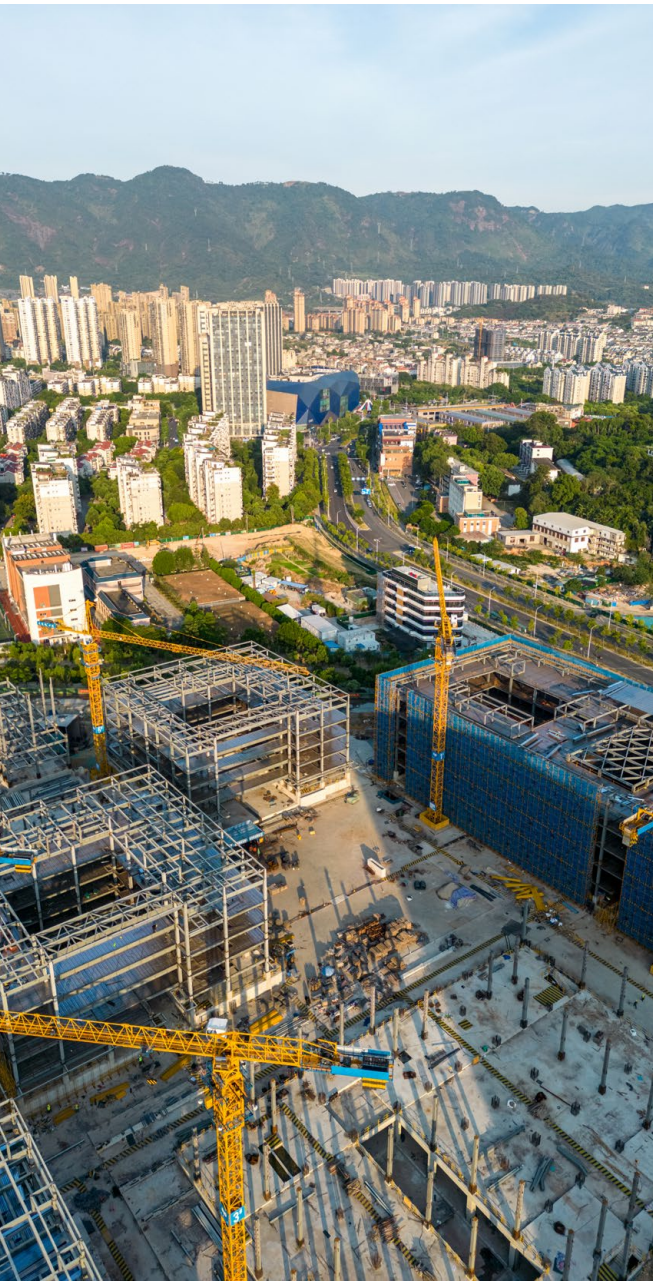
- 1.2.3) Competition in infrastructure services
- 1.4.2) Project delays
- 1.4.3) Project cancellations
- 1.4.4) Quality of overall infrastructure
- 2.1.1) Infrastructure gap
- 2.1.2) Complementary sources of financing
- 2.2.1) Outcome-linked financing
- 2.2.2) Green project financing
- 2.3.2) Government support and development bank participation
- 3.1.3) Social progress outcomes
- All indicators in 3.4
- All indicators in Pillar 4 except 4.3.1 and 4.3.2
- 5.3.2) Protection of terrestrial biomes
- 5.3.4) Emissions in infrastructure-related sectors
- 5.4.4) Renewables projects share of infrastructure investment

Sub-national scoring

The barometer does not have sufficient detail to provide sub-national scores. However, some indicators do touch on local-level themes, considering whether the country has appropriate high-level policies in place to facilitate positive sub-national outcomes. For example, indicator group 3.2 considers requirements/policies for engagement with local communities, and indicator group 4.3 examines policies and economic outcomes related to local industries, companies, workers, and across urban and rural areas.

In general, the barometer's emphasis on national policies may create some disadvantage for countries where major policies about infrastructure development are left unaddressed at the national level, but rather decentralized to sub-national jurisdictions. This may be the case for some countries such as Switzerland (in which individual cantons have significant independence) or France (where many development regulations are left to towns and cities), among others. Where possible, our research attempts to consider relevant sub-national legislation when assessing country scores, but it is not always feasible to expand the scope of analysis to the sub-national level.

Section III: Technical details



Indicator scoring

All qualitative indicators are scored on an integer scale. The scale ranges from 0–1 to 0–9, depending on the configurations formulated for each indicator. Scores are assigned by Economist Impact's research managers and a team of country analysts following a detailed scoring guide.

To maximize the granularity and accuracy of the Infrastructure for Good barometer while maintaining objectivity, the scoring framework for qualitative indicators includes binary indicators (0 = No and 1 = Yes) as well as those that award additional points when specific criteria are met (+1 if criteria A is met, +1 if criteria B is met, etc).

For qualitative indicators, all scores are awarded based on publicly available sources. We recognize that a lack of publicly available information in certain cases may limit the accuracy of the barometer. However, it is beyond our scope to evaluate what occurs outside a country's official infrastructure policies. To maintain consistency in scoring, we cannot award a positive score for actions that a country may take "in practice" if this is not backed up with reliable, published evidence.

For quantitative indicators, there may be instances in which data points are not available for all 30 countries. In such cases, the Economist Impact research team calculates an approximate score based on analysis of patterns across similar countries for which data are available.

Sources

For qualitative indicators, Economist Impact prioritized the most official and encompassing sources (eg, laws and regulations) in assessing each country. These include, in rough order of preference:

- Texts of laws, regulations, and other legal documents available in national repositories, online portals or official gazettes.
- Official infrastructure guidelines, manuals, instructions or templates (such as contract and bidding document templates). These should be official and enforceable documents, reflecting the situation on the ground for infrastructure.
- Websites of government authorities, such as the Ministry of Finance, sector ministries or planning and infrastructure/public works agencies.
- Official statements on government websites.
- Technical reports or assessments (by reputable institutions such as international organizations and consultancies).
- Local and international news-media reports, recent and from reputable sources (high circulation newspapers, for example).

Data for the quantitative indicators are drawn from national and international statistical sources and research. The major quantitative data sources used in the Infrastructure for Good barometer include the following:

- Cable.co.uk
- Climate Action Tracker
- Climate Watch Data
- The Economist Intelligence Unit's Business Environment Rankings
- The Economist Intelligence Unit's Operational Risk Model
- Enerdata
- Numbeo Traffic Index
- Fast Metrics
- Global Infrastructure Outlook
- Global Infrastructure Hub
- IJ Global
- International Monetary Fund
- International Renewable Energy Agency (IRENA)
- International Labour Organization (ILO)
- Moody's, S&P, and NYU Stern School of Business faculty credit and risk ratings
- Notre Dame Global Adaptation Initiative (ND-GAIN) Country index
- Oxford Economics
- Social Progress Index
- UN Habitat
- UN Office for Disaster Risk Reduction's Sendai Monitor
- UN Office for Disaster Risk Reduction's Hyogo Framework for Action
- UN Environment Programme
- Sustainable Development Goal (SDG) indicators
- World Bank Logistics Performance Index
- World Bank national accounts data
- World Bank Women, Business and the Law Index
- World Bank Worldwide Governance Indicators
- World Economic Forum (WEF)
- World Intellectual Property Organization (WIPO)
- World Population Review
- Yale Environmental Performance Index

Indicator normalization

All indicator scores are normalized to a common 0–100 scale to enable comparison and aggregation of the results across the barometer's indicators and pillars. This process is applied to both the quantitative and qualitative indicators.

Quantitative indicators are generally normalized to a 0–100 scale using bookends that correspond to the minimum and maximum data points across the 30 countries, ensuring that the lowest-performing country receives a 0 and the highest-performing country receives a 100. The formula used is $x_{NORMALIZED} = 100 * (x - Min(x)) / (Max(x) - Min(x))$, where Min(x) and Max(x) are respectively the lowest and highest values across the country sample.

Some quantitative indicators may feature a built-in scale as part of the source data (eg, 0 to 5). In such cases, even if none of the 30 countries received a 0 or a 5, we still use 0 and 5 as the bookends for normalization, as this represents a well-defined range of potential scores.

For qualitative indicators, the process is similar. We use bookends that correspond to the minimum or maximum possible points that a country can score on each indicator, regardless of whether any of the 30 countries actually do.

Barometer weights

Each pillar, indicator group, and indicator in the barometer is weighted before calculating the final scores and ranks. The Economist Impact research team selects default weights based on (1) the nature and distribution of each indicator, (2) sensitivity analyses of the data, and (3) suggestions by experts consulted during the barometer development process.

The default weights for each pillar in the barometer have been assigned as follows:

1. GOVERNANCE AND PLANNING	18.5%
2. SUSTAINABLE FINANCING AND INVESTMENT	18.5%
3. SOCIAL AND COMMUNITY IMPACT	21.0%
4. ECONOMIC BENEFITS AND EMPOWERMENT	21.0%
5. ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE	21.0%

In the publicly available Excel data tool, the barometer's default weights can also be adjusted by users to better accommodate their own priorities and areas of emphasis.

After all indicators are normalized to a common 0–100 scale, Economist Impact applies a series of weights to calculate the composite or overall index score. Calculations for the overall index result in composite scores of 0–100 for each country, where 100 represents the highest quality and performance and 0 the lowest.

In addition to the default expert-assigned weights in the table below, users also have the option to select "neutral weighting", which assigns equal weights across pillars, indicator groups and indicators.

Default weights used in the barometer

Pillar (weight)	Indicator group (weight)	Indicator (weight)
1. Governance and planning (18.5%)	1.1 Regulatory effectiveness (27%)	1.1.1 Political stability (20%)
		1.1.2 Technical capacity (30%)
		1.1.3 Corruption perceptions (35%)
		1.1.4 Corruption detection mechanisms (15%)
	1.2 Private sector engagement (22%)	1.2.1 Contracting transparency and commitments (30%)
		1.2.2 Contract disputes and enforcement (30%)
		1.2.3 Competition in infrastructure services (40%)
	1.3 Planning and coordination (25%)	1.3.1 National and sectoral strategies (32%)
		1.3.2 Needs assessments and participatory planning (36%)
		1.3.3 Systemic coordination (32%)
	1.4 Implementation and outcomes (26%)	1.4.1 Systemic monitoring and evaluation (15%)
		1.4.2 Project delays (25%)
		1.4.3 Project cancellations (25%)
		1.4.4 Quality of overall infrastructure (35%)
2. Sustainable financing and investment (18.5%)	2.1 Adequacy of investment (26%)	2.1.1 Infrastructure gap (35%)
		2.1.2 Complementary sources of financing (30%)
		2.1.3 Financial market depth and health (35%)
	2.2 Financing for social good (26%)	2.2.1 Outcome-linked financing (50%)
		2.2.2 Green project financing (50%)
	2.3 Viability support and de-risking (24%)	2.3.1 Project preparation facilities (40%)
		2.3.2 Government support and development bank participation (30%)
		2.3.3 Accessibility of IFI support (30%)
	2.4 Fiscal sustainability (24%)	2.4.1 Fiscal transparency and assessment (25%)
		2.4.2 Financial auditing and reporting standards (25%)
		2.4.3 Cost overrun disclosures (20%)
		2.4.4 Country financial risk (30%)

3. Social and community impact (21%)	3.1 Social assessments and progress (22%)	3.1.1 Strategic social assessments (33%)
		3.1.2 Social impact assessments (27%)
		3.1.3 Social progress outcomes (40%)
	3.2 Community engagement and support (26%)	3.2.1 Engagement with local communities (33%)
		3.2.2 Inclusive development (33%)
		3.2.3 Support for displaced populations (33%)
	3.3 Protections for workers and communities (24%)	3.3.1 Forced labor in public procurement (33%)
		3.3.2 Indigenous rights (33%)
		3.3.3 Health and safety plans (33%)
	3.4 Access to public services and utilities (28%)	3.4.1 Access to social infrastructure (33%)
		3.4.2 Access to electricity and clean energy (33%)
		3.4.3 Access to water and sanitation services (33%)
4. Economic benefits and empowerment (21%)	4.1 Connectivity and participation (25%)	4.1.1 Transport access and efficiency (33%)
		4.1.2 Trade connectivity and efficiency (33%)
		4.1.3 Digital connectivity and privacy (33%)
	4.2 Economic opportunity and job creation (25%)	4.2.1 Direct job creation (50%)
		4.2.2 Clean energy job impacts (30%)
		4.2.3 Gender gap in labor participation (20%)
	4.3 Local industry and economy (25%)	4.3.1 Local companies and SMEs (35%)
		4.3.2 Skill development and job training (25%)
		4.3.3 Urban and rural economic opportunity (40%)
	4.4 Innovation and productivity (25%)	4.4.1 Innovation-enabling infrastructure (50%)
		4.4.2 Business-enabling infrastructure (50%)

5. Environmental sustainability and resilience (21%)	5.1 Environmental management (23%)	5.1.1 Strategic environmental assessments (35%)
		5.1.2 Environmental impact assessments (35%)
		5.1.3 Environmental reporting and transparency (30%)
	5.2 Resilience and adaptation (26%)	5.2.1 National vulnerability, resilience and adaptation strategy (40%)
		5.2.2 Environmental risk requirements (15%)
		5.2.3 Future-proofing and nature-based solutions (20%)
		5.2.4 Infrastructure vulnerability and resilience (25%)
	5.3 Environmental impacts (25%)	5.3.1 Ecosystems and biodiversity (20%)
		5.3.2 Protection of terrestrial biomes (20%)
		5.3.3 Resource efficiency and circular economy (30%)
		5.3.4 Emissions in infrastructure-related sectors (30%)
	5.4 Climate mitigation and decarbonization (26%)	5.4.1 Sectoral infrastructure emissions goals (20%)
		5.4.2 Sufficiency of national climate commitments (30%)
		5.4.3 Emissions reduction strategies (30%)
		5.4.4 Renewables projects share of infrastructure investment (20%)

Note: for any indicators that contain distinct sub-indicators, the sub-indicators are weighted equally. If sub-indicators are scored using point systems (eg, part a is worth 2 points and part b is worth 1 point), each point is weighted equally.

Appendix: Detailed indicator guidance

This appendix contains detailed scoring guidance for the barometer's 64 indicators. These are organized into five pillars, with each pillar containing four separate indicator groups. Each indicator entry below includes information about the question assessed, the scoring rubric and the source(s).

1) GOVERNANCE AND PLANNING

1.1) Regulatory effectiveness

1.1.1) Political stability

Does the country have a stable and well-functioning political and legal system?

Scoring: Political stability and absence of violence/terrorism, score –2.5 to 2.5

Source: World Bank Worldwide Governance Indicators

1.1.2) Technical capacity

What is the perceived quality of the public and civil service, its independence, and the ability of the government to formulate and implement sound policies that permit development?

Composite score of the following:

a) Government effectiveness
   Score –2.5 to 2.5
b) Regulatory quality category score
   Score –2.5 to 2.5

Source: World Bank Worldwide Governance Indicators

1.1.3) Corruption perceptions

What is the prevalence of corruption and the strength of anti-corruption measures in the country?

Scoring: Corruption Perceptions Index, score 0–100

Source: Transparency International

1.1.4) Corruption detection mechanisms

Does the country utilize any of the following early detection mechanisms to offer speedier, trusted and less disruptive resolutions to infrastructure corruption risks?

Scoring: 0 = No

a) National contact point for responsible business conduct
   +1: Yes
b) High-level reporting mechanisms
   +1: Yes
c) Integrity pacts
   +1: Yes

Note: for definitions of these mechanisms, see OECD's 2022 report, "*Catalysing collective action to combat corruption in infrastructure*"

Source: Economist Impact analyst rating

1.2) Private sector engagement

1.2.1) Contracting transparency and commitment

Has the country made official commitments to improve competition and transparency in infrastructure contracting and project procurement, and are there rules in place for contract transparency?

Scoring:

a) Open Government Partnership commitments

0 = No

1 = Yes, the country has submitted a commitment to the Open Government Partnership in the past five years related to open contracting and public procurement

2 = Yes, the country has submitted such a commitment, and it has been rated as "ambitious"

b) Requirement to publish bidding documents

+1: Yes

c) Requirement to publish contracts

+1: Yes

d) Requirement to disclose contract changes and renegotiations

+1: Yes

Note: bidding documents include requests for qualifications, requests for tenders and requests for proposals produced during the procurement stage.

Source: Economist Impact analyst rating

1.2.2) Contract disputes and enforcement

What is the quality of domestic contract enforcement, arbitration mechanisms and property rights?

Composite score of the following:

a) Independent tribunals: does the country rely on an independent arbitration tribunal in infrastructure disputes?

0 = No, 1 = Partially (use is optional or inconsistent), 2 = Yes (use is mandatory or universal)

b) Arbitration time: are there maximum time requirements for arbitration rulings to avoid lengthy appeals?

0 = No, 1 = Yes

c) Rule of law: quality of contract enforcement, courts, property rights, etc

Score –2.5 to 2.5

Sources:
a) Economist Impact analyst rating
b) Economist Impact analyst rating
c) World Bank Worldwide Governance Indicators

1.2.3) Competition in infrastructure services

How competitive is the provision of network sector services (telecoms, utilities, transport, postal, etc)?

Scoring: Question 7.03c of the World Economic Forum's Executive Opinion Survey, score 1–7

Source: World Economic Forum

1.3) Planning and coordination

1.3.1) National and sectoral strategies

Does the country have an active, published national development plan and sectoral strategies for infrastructure investment?

Scoring:

a) Existence of published national/sectoral strategy
   0 = No
   1 = Yes, it has published either national or sectoral strategies/plans
   2 = Yes, it has both national and sectoral strategies/plans

b) Measurable targets related to social and environmental outcomes
   +1: These strategies include measurable targets related to social and environmental outcomes

Source: Economist Impact analyst rating

1.3.2) Needs assessments and participatory planning

Does the country regularly conduct needs assessments to inform national infrastructure strategies? Do individual projects engage in needs assessments and participatory planning?

Note: participatory planning is proactive, early stage and collaborative, seeking to inform project selection/design through active community and stakeholder participation (often in contrast to later stage solicitation of community input).

Scoring:

a) National needs assessments: conducted regularly
   0 = No
   1 = Yes, national needs assessments are conducted

b) National needs assessments: consider environmental and social needs/outcomes
   +1: National needs assessments consider environmental and social needs and outcomes in an integrated manner

c) Needs assessments: project requirements and participatory planning
   +1: Individual projects are required to engage in participatory planning with affected communities or to conduct needs assessments during early planning stages

Source: Economist Impact analyst rating

1.3.3) Systemic coordination

Is there a dedicated body or agency in charge of coordinating infrastructure development efforts and pipelines across sectors, agencies and stakeholders?

Scoring:

a) Systemic coordination: existence of dedicated cross-sector coordinating body
   0 = No
   1 = Yes

b) Systemic coordination: publication of information about project pipelines
   +1: Centralized information is published about project pipelines (projects that have been announced but are still in development stages, ie, pre-tendering/pre-funded)

Source: Economist Impact analyst rating

1.4) Implementation and outcomes

1.4.1) Systemic monitoring and evaluation

Is a dedicated body in place that coordinates systemic monitoring/evaluation of the country's infrastructure throughout its lifecycle?

Note: this does not refer to standard inspections by sectoral regulators, but rather cross-sectoral/systemic efforts.

Scoring:

0 = No

1 = Yes

Source: Economist Impact analyst rating

1.4.2) Project delays

What share of projects have experienced delays during the past ten years (post-procurement)?

Scoring: % of projects

Note: includes any projects with financing from the private sector, state-owned entities (SOEs) or development finance; excludes projects directly funded by the government.

Source: IJ Global

1.4.3) Project cancellations

What share of projects have been cancelled during the past ten years (post-procurement)?

Scoring: % of projects

Note: includes any projects with financing from the private sector, SOEs or development finance; excludes projects directly funded by the government.

Source: IJ Global

1.4.4) Quality of overall infrastructure

What is the state of overall infrastructure in the country?

Scoring: Question 2.01 of the World Economic Forum's Executive Opinion Survey, score 1–7

Source: World Economic Forum

2) SUSTAINABLE FINANCING AND INVESTMENT

2.1) Adequacy of investment

2.1.1) Infrastructure gap

What is the country's estimated infrastructure gap?

Note: this is measured as the difference between infrastructure needs and current investment trends in 2016–40.

Scoring: % of GDP (where lower is better)

Note: scoring utilizes a tiered system, in which countries' infrastructure needs reflect an achievable target level specific to their current income group and unique internal characteristics.

Source: Global Infrastructure Hub & Oxford Economics, "*Global Infrastructure Outlook*"

2.1.2) Complementary sources of financing

To what extent do projects utilize diverse sources of financing such as project bonds and institutional investment?

(ie, as opposed to more traditional government and commercial bank lending)

Composite score of the following:

a) Project bonds

   % of projects with project bond issuances in the past five years

b) Institutional investors

   % of projects with institutional investor participation in the past five years

Note: includes any projects with financing from the private sector, SOEs, or development finance; excludes projects directly funded by the government.

Source: IJ Global

2.1.3) Financial market depth and health

What is the depth and health of local financial markets?

Composite score of the following:

a) Average cost of capital: country risk premium

   %, where lower is better

b) Marketable debt risk

   Economist Intelligence Unit rating (0–4, where 0 = lowest risk) regarding the liquidity and depth of local currency-denominated, fixed-rate, medium-term (five years +) bond market in marketable debt (ie, debt that is traded freely)

c) Health of local banks

   Overall health and soundness of local banks, as per indicator 9.06 of the World Economic Forum's Global Competitiveness Index, score 1–7

Sources:
a) Moody's; S&P; estimates from NYU Stern School of Business faculty
b) The Economist Intelligence Unit's Operational Risk Model
c) World Economic Forum

2.2) Financing for social good

2.2.1) Outcome-linked financing

What share of projects have used sustainability-linked loans or bonds in the past five years?

Note: these are instruments that tie financing conditions (such as interest rates) to a project's ability to meet sustainability/social key performance indicators.

Scoring: % of projects

Note: includes any projects with financing from the private sector, SOEs or development finance; excludes projects directly funded by the government.

Source: IJ Global

2.2.2) Green project financing

What share of projects have been financed using green bonds or loans in the past five years?

Scoring: % of projects

Note: includes any projects with financing from the private sector, SOEs or development finance; excludes projects directly funded by the government.

Source: IJ Global

2.3) Viability support and de-risking

2.3.1) Project preparation facilities

Does the country have formal facilities in place that provide technical assistance to expedite the preparation and improve the bankability of proposed projects? (Typical activities include support with feasibility studies, risk analysis, contract structuring.)

Scoring:

a) Formal facilities to guide and assist during the preparation phase

0 = No

1 = Yes

b) Financing for early stage feasibility studies and impact assessments

+1: Financing is also available for early stage feasibility studies and impact assessments

Source: Economist Impact analyst rating

2.3.2) Government support and development bank participation

How many projects have received financial support from the government or multilateral/ development banks to improve their bankability?

Note: examples include grants, guarantees, government loans, development bank loans, multilateral loans and export credit facilities.

Scoring:

Share of total projects with support during the past five years, where the countries are:

0 = 0–15% (lower-middle income); 0–10% (upper-middle income); 0–3% (high income)

1 = 15–30% (lower-middle income); 10–20% (upper-middle income); 3–8% (high income)

2 = 30–45% (lower-middle income); 20–30% (upper-middle income); 8–15% (high income)

3 = 45%+ (lower-middle income); 30%+ (upper-middle income); 15%+ (high income)

Note: includes any projects with financing from the private sector, SOEs or development finance; excludes projects directly funded by the government.

Source: IJ Global

2.3.3) Accessibility of IFI support

What is the accessibility of risk mitigation instruments (eg, financial guarantees, insurances, other credit enhancement schemes) from international financial institutions (IFIs) in the region?

Composite score of the following four regional ratings:

a) IFI support: availability to market participants

b) IFI support: cost

c) IFI support: complexity

d) IFI support: accessibility

Source: World Economic Forum's Risk Mitigation Instruments in Infrastructure: Gap Assessment

2.4) Fiscal sustainability

2.4.1) Fiscal transparency and assessment

Are fiscal affordability analysis and value-for-money assessments required by regulatory agencies for assessing the feasibility and suitability of infrastructure projects?

Note: a fiscal affordability analysis examines a project's effects on the long-term public fiscal outlook. A value-for-money assessment seeks to compare the value of delivering infrastructure projects across various modalities.

Scoring:

a) Affordability and value-for-money assessment requirements
   0 = No
   1 = Yes, but only one or not in all cases
   2 = Yes, both
b) Methodologies for affordability and value-for-money assessments
   +1: There are published methodologies provided

Source: Economist Impact analyst rating

2.4.2) Financial auditing and reporting standards

What is the overall strength of the country's financial auditing and reporting standards?

Scoring: Indicator 1.18 of the World Economic Forum's Global Competitiveness Index, score 1–7

Source: World Economic Forum

2.4.3) Cost overrun disclosures

Does the country publish aggregated information about cost overruns across infrastructure projects (for example, in annual budget reports)?

Scoring:

0 = No
1 = Yes, aggregated information is published about cost overruns

Source: Economist Impact analyst rating

2.4.4) Country financial risk

What is the country's rating for sovereign risk, currency risk and banking sector risk?

Composite score of the following:

a) Sovereign risk score
   0–100, where 0 is least risky
b) Currency risk score
   0–100, where 0 is least risky
c) Banking sector risk score
   0–100, where 0 is least risky

Source: The Economist Intelligence Unit's Country Risk Service

3) SOCIAL AND COMMUNITY IMPACT

3.1) Social assessments and progress

3.1.1) Strategic social assessments

Does the national government have a process in place for conducting strategic social assessments (SSAs) that inform policies, plans and programs for infrastructure development?

Note: SSAs may be part of a broader strategic social/environmental assessment.

Scoring:

0 = No

1 = Yes, but only specific to one or two individual sectors

2 = Yes, the SSA process is cross-sectoral, covering at least three of five major infrastructure sectors (transport, energy, water/waste, ICT, social)

Source: Economist Impact analyst rating

3.1.2) Social impact assessments

Do regulations stipulate that social impact assessments (SIAs) be conducted for infrastructure projects?

Note: SIAs may be part of a broader social/environmental impact assessment.

Scoring:

a) Social impact assessments: requirement

0 = No

1 = Yes, but not universally

2 = Yes, for all projects/sectors

b) Social impact assessments: published methodologies

+1: The assessment uses a published methodology for assessing social impacts

Source: Economist Impact analyst rating

3.1.3) Social progress outcomes

How strong is the country's progress in promoting social infrastructure and achieving social outcomes related to the Sustainable Development Goals (SDGs)?

Scoring: Social Progress Index, score 0–100

Source: Social Progress Index

3.2) Community engagement and support

3.2.1) Engagement with local communities

Do regulations require consultation with communities and other local organizations to solicit input about projects?

Scoring:

a) Community engagement: requirement

0 = No

1 = Yes, but not universally

2 = Yes, for all projects/sectors

b) Community engagement: publication requirement

+1: Online publication of these findings is required

c) Community engagement: requirement to consult minority groups

+1: Consultation with underrepresented groups is required (such as minorities, inner city groups, indigenous groups, low-income groups, youth/elderly, women)

Source: Economist Impact analyst rating

3.2.2) Inclusive development

Is new infrastructure required to consider socially inclusive outcomes during planning, selection and design?

Scoring:

a) Inclusive development: requirement to consider

0 = No

1 = Yes

b) Inclusive development: published strategy or framework

+1: There is a published strategy or framework that considers benefits to gender, age, race, disability, income, etc

c) Inclusive development: net advantage to disadvantaged communities

+1: Regulations require infrastructure to provide a net advantage to disadvantaged communities (rather than merely minimize negative impacts)

Source: Economist Impact analyst rating

3.2.3) Support for displaced populations

Does the government manage, assist with or seek to reduce population displacement associated with new infrastructure (or does it require the private sector to do so)?

Note: support systems may include help with moving expenses, access to a dedicated dispute resolution mechanism, active relocation programs, etc.

Scoring: 0 = No

a) Support for displaced populations: support systems

+1: Support systems are available (beyond basic compensation) to assist displaced people with resettlement

b) Support for displaced populations: "same or better"

+1: Policies are in place to ensure living conditions are "the same or better" for displaced people following resettlement (eg, providing compensation based on market price rather than assessed value, providing 'economic compensation' to make up for lost income/livelihoods experienced as a result of expropriation, or offering displaced residents access to secure affordable housing)

c) Support for displaced populations: long-term displacement considerations

+1: Project plans are required to assess potential long-term effects on local property values and/or prioritize efforts to protect against the future displacement of existing low-income communities through affordable housing measures

Source: Economist Impact analyst rating

3.3) Protections for workers and communities

3.3.1) Forced labor in public procurement

How comprehensive have government actions been to prevent the sourcing of goods and services linked to forced labor or modern slavery?

Scoring: Milestone 5 of the Global Slavery Index, score 0–100

Source: Walk Free Foundation, Global Slavery Index 2018

3.3.2) Indigenous rights

Do regulations establish formal rules around the preservation of indigenous cultures, land and resources?

Note: countries without indigenous people are not penalized.

Scoring:

a) Formal rules for the preservation of indigenous cultures
   0 = No
   1 = Yes
b) Recognition of indigenous rights on a free, prior and informed consent (FPIC) basis
   +1: Indigenous rights are recognized through a system of FPIC

Note: FPIC is a right that allows indigenous peoples to give or withhold consent to a project that may affect them or their territories. It also enables them to negotiate the conditions under which the project will be developed.

Source: Economist Impact analyst rating

3.3.3) Health and safety plans

Does the country mandate that infrastructure project plans are assessed for health and safety considerations before projects begin?

Scoring:

a) Community health and safety plans: government mandate
   0 = No
   1 = Yes, the impact on community health and safety is assessed
b) Health and safety plans: project workers
   +1: Health and safety for project workers is also included

Source: Economist Impact analyst rating

3.4) Access to public services and utilities

3.4.1) Access to social infrastructure

How strong is access to social infrastructure (eg, health, education)?

Composite score of the following:

a) Hospital beds per capita
   Beds per 1,000 people
b) Births attended by skilled health staff
   % of births
c) Universal/partial healthcare coverage
   0 = No, 1 = Partial, 2 = Complete
d) Children out of school
   % of primary school age

Sources: World Bank World Development Indicators; Economist Impact analyst rating (health coverage)

3.4.2) Access to electricity and clean energy

How strong is access to electricity and clean energy?

Composite score of the following:

a) Access to electricity
   % of population
b) Affordability of electricity
   PPP$ per kWh
c) Primary reliance on clean fuels/technology
   % of population

Sources:
a) SDG indicator 7.1.1
b) Cable.co.uk
c) SDG indicator 7.1.2

3.4.3) Access to water and sanitation services

How strong is access to water and sanitation services?

Composite score of the following:

a) Access to safe drinking water
   % of population
b) Access to safely managed sanitation services
   % of population
c) Wastewater flows safely treated
   % of flows safely treated

Sources:
a) SDG indicator 6.1.1
b) SDG indicator 6.2.1
c) SDG indicator 6.3.1

4) ECONOMIC BENEFITS AND EMPOWERMENT

4.1) Connectivity and participation

4.1.1) Transport access and efficiency

How strong is access to public transport, and how efficient are traffic systems?

Composite score of the following:

a) Access to public transport
   % of population in major cities with convenient access to public transport
b) Traffic index
   Score 0–100: reflecting commute time, time consumption dissatisfaction, CO2 consumption in traffic and overall inefficiencies in the traffic system

Sources:
a) UN Habitat (SDG 11.2.1); World Population Review
b) Numbeo Traffic Index

4.1.2) Trade connectivity and efficiency

What is the efficiency and quality of the country's trade- and logistics-related infrastructure?

Scoring: Logistics Performance Index, score 0–100

Source: World Bank Logistics Performance Index

4.1.3) Digital connectivity and privacy

What is the country's level of digital connectivity and privacy?

Composite score of the following:

a) Fixed broadband subscriptions
   % of population
b) Average broadband connection speed
   Mbps
c) Mobile network coverage
   % of population
d) Cost of mobile data
   PPP$ per 1GB
e) Internet freedom, privacy and digital rights
   Internet Freedom score, 0–100

Sources:
a) World Bank
b) Fast Metrics
c) SDG Indicator 9.c.1
d) Cable.co.uk
e) Freedom House's Freedom on the Net index

4.2) Economic opportunity and job creation

4.2.1) Direct job creation

How many jobs are created as a direct result of infrastructure investment in the country?

Scoring: % of total jobs

Sources: Economist Impact estimates; IMF, "*The Direct Employment Impact of Public Investment*"; Global Infrastructure Hub & Oxford Economics, "*Global Infrastructure Outlook*"; IJ Global

4.2.2) Clean energy job impacts

How many jobs are created directly and indirectly by the country's renewables sectors?

Scoring: % of total jobs

Sources: IRENA; International Labour Organization

4.2.3) Gender gap in labor participation

Does the country's infrastructure (including social infrastructure) create balanced economic opportunities for both men and women?

Scoring: adjusted gender gap (in percentage points), where lower is better

Note: each country's gender gap is adjusted to control for systemic differences across regions, income levels and laws affecting women's participation. The resulting gender gap should be interpreted as representing the country's gap relative to an "ideal" benchmark, which is often near the 90th percentile for each region, but this sometimes varies.

Sources: International Labour Organization; World Bank national accounts; World Bank's Women, Business and the Law Index

4.3) Local industry and economy

4.3.1) Local companies and SMEs

Do regulations incentivize or require either local companies or small and medium-sized enterprises (SMEs) to be involved in infrastructure projects (in bidding, construction or operational capacities)?

Scoring:

0 = No

1 = Yes

Source: Economist Impact analyst rating

4.3.2) Skill development and job training

Are there national plans or strategies in place that seek to improve training/skilling opportunities among the local workers involved in infrastructure projects?

Note: this may include initiatives by the government, requirements for project companies/financiers, or other strategies.

Scoring:

0 = No

1 = Yes

Source: Economist Impact analyst rating

4.3.3) Urban and rural economic opportunity

Does infrastructure development create balanced economic opportunities for both urban and rural areas, enabling access to sufficient work regardless of one's location?

Scoring: percentage-point difference between urban and rural areas in the labor force underutilization rate, where smaller differences (in absolute value) are better

Source: International Labour Organization

4.4) Innovation and productivity

4.4.1) Innovation-enabling infrastructure

How well does the country's infrastructure enable innovation activities?

Scoring: Infrastructure pillar score, 0–100

Source: WIPO Global Innovation Index

4.4.2) Business-enabling infrastructure

To what degree does the country's infrastructure create a strong, efficient business environment?

Scoring: Infrastructure category score, 0–100 (reflecting quality across a variety of infrastructure and business metrics)

Source: The Economist Intelligence Unit's Business Environment Rankings

5) ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

5.1) Environmental management

5.1.1) Strategic environmental assessments

Does the national government have a process in place for conducting strategic environmental assessments (SEAs) that inform policies, plans and programs for infrastructure development?

Note: SEAs may be part of a broader strategic social/environmental assessment. SEAs may be referred to as sustainability appraisals, integrated assessments, strategic impact assessments, etc.

Scoring:

0 = No

1 = Yes, but only specific to one or two individual sectors

2 = Yes, the SEA process is cross-sectoral, covering at least three of five major infrastructure sectors (transport, energy, water/waste, ICT, social)

Source: Economist Impact analyst rating

5.1.2) Environmental impact assessments

Are environmental impact assessments (EIAs) for projects conducted in an impartial, transparent and enforceable manner?

Note: EIAs may be part of a broader social/environmental impact assessment.

Scoring:

a) EIAs: impartial regulation

0 = No, there is not sufficient evidence of impartial EIA processes

1 = Yes, EIAs are conducted by impartial, regulated professionals (eg, the assessor is selected by the government rather than by project developers, or the pool of potential assessors must be certified/regulated)

b) EIAs: publication requirement

+1: Publication of the environmental impact study or an environmental impact statement is required

c) EIAs: published methodology

+1: There is a published methodology (may be sector-specific) or the regulatory agency has made a standardized evaluation tool available for use

d) EIAs: post-project audits

+1: Post-project audits are required to compare actual environmental impacts to predicted impacts

e) EIAs: mechanisms to ensure influence

+1: There are mechanisms for ensuring EIA outcomes/recommendations influence the project design or approval process. These may be taxes, fines, fees, regulatory incentives or requirements (such as mandating an environmental management system).

Source: Economist Impact analyst rating

5.1.3) Environmental reporting and transparency

Are infrastructure projects incentivized or required to report data on environmental outcomes during construction/operation?

Scoring:

a) Requirement/incentive to report data during construction/operation
   0 = No
   1 = Yes, for either carbon emissions or broader environmental outcomes
   2 = Yes, both
b) Espoo Convention on cross-border impacts
   +1: The country is a signatory to the Espoo Convention, which requires disclosure/consultation about potential cross-border environmental impacts at an early planning stage

Source: Economist Impact analyst rating

5.2) Resilience and adaptation

5.2.1) National vulnerability, resilience and adaptation strategy

Has the country carried out a national climate vulnerability/risk assessment for infrastructure, and does it have a national adaptation plan?

Scoring: 0 = No

a) Climate vulnerability assessment for infrastructure
   +1: Yes, a climate vulnerability assessment has been conducted
b) National adaptation plan: existence
   +1: Yes, a national adaptation plan is in place
c) National adaptation plan: strategies for improving existing infrastructure
   +1: The plan (or similar document) includes strategies for improving the resilience of physical and social infrastructure
d) National adaptation plan: consideration of nature-based infrastructure
   +1: The plan (or similar document) considers nature-based (or green or ecological) infrastructure solutions
e) National adaptation plan: dedicated body
   +1: A dedicated body is in place for carrying out and monitoring implementation of the plan

Source: Economist Impact analyst rating

5.2.2) Environmental risk requirements

Are new infrastructure projects required to carry out an environmental risk analysis, and does this cover disaster risk?

Note: environmental risk analysis examines environmental-based risks to the project, whereas an environmental impact analysis (see 5.1.2) examines risks to the environment.

Scoring:

a) Mandatory environmental risk analysis
   0 = No
   1 = Yes, environmental risk analysis is required
b) Disaster risk analysis
   +1: The analysis is required to cover disaster risk
c) Disaster risk insurance
   +1: Regulations specify requirements for disaster risk insurance

Source: Economist Impact analyst rating

5.2.3) Future-proofing and nature-based solutions

Do national regulatory frameworks incentivize future-proofing (eg, adopting flexible/adaptable design approaches, using durable/renewable materials, fortifying against natural or external shocks, reducing the risk of obsolescence) for new infrastructure projects?

Is consideration of nature-based options (eg, green-gray infrastructure, ecological infrastructure) incentivized or required during the infrastructure planning process?

Scoring:

a) Incentives for future-proofing new infrastructure projects
   0 = No
   1 = Yes
b) Nature-based options: incentivized
   +1: Consideration of nature-based options is incentivized
c) Nature-based options: required
   +1: Consideration of nature-based options is required

Source: Economist Impact analyst rating

5.2.4) Infrastructure vulnerability and resilience

How vulnerable is the country's infrastructure to climate hazards?

How prepared is the country to reduce the risk of natural disasters?

Composite score of the following:

a) Infrastructure vulnerability
   Score 0–1, where 1 = least vulnerable
b) Disaster preparedness
   Score 0–1, where 1 = most prepared

Sources:
a) ND-GAIN Country Index
b) UNDRR Sendai Monitor; UNDRR Hyogo Framework for Action; ND-GAIN Country Index

5.3) Environmental impacts

5.3.1) Ecosystems and biodiversity

Does the country require that infrastructure projects produce no net loss of natural/modified habitats or biodiversity?

Scoring:

a) "No net loss" requirement
   0 = No
   1 = Yes
b) Protections for areas of high biodiversity value
   +1: The country specifically includes protections pertaining to areas of high biodiversity value in its policies for infrastructure development
c) Incentives for biodiversity gains
   +1: The country offers incentives for projects that promote biodiversity gains (sometimes referred to as biodiversity net gain, in which on-site habitats or biodiversity are raised compared with pre-project levels)

Source: Economist Impact analyst rating

5.3.2) Protection of terrestrial biomes

What proportion of the country's important terrestrial biomes are maintained by protected areas?

Scoring: average % across biome types, with greater weight given to rarer biomes

A proportion above 17% receives a score of 100. This is a global benchmark set by the Aichi Target 11.

Source: Yale Environmental Performance Index

5.3.3) Resource efficiency and circular economy

Do regulations require infrastructure projects to meet an efficient standard in how they use energy, materials and supply chains?

Scoring: 0 = No

a) Requirement to meet efficient standard in use of energy
   +1: Yes, there are energy efficiency standards
b) Efficiency standards for material use/ recycling
   +1: Yes, there are efficiency standards for material use/recycling
c) Incentives to promote green supply chains
   +1: Yes, there are procurement systems or incentives in place to promote reliance on green supply chains

Source: Economist Impact analyst rating

5.3.4) Emissions in infrastructure-related sectors

What are the annual total greenhouse gas (GHG) emissions in infrastructure-related sectors per capita (or per worker)?

Composite score of the following:

a) Electricity/heat: emissions per user
   GHG emissions (tCO2e) per user
b) Construction/manufacturing: emissions per worker
   GHG emissions (tCO2e) per worker
c) Transportation: emissions per capita
   GHG emissions (tCO2e) per capita
d) Waste: emissions per capita
   GHG emissions (tCO2e) per capita

Sources: Climate Watch; International Labour Organization

5.4) Climate mitigation and decarbonization

5.4.1) Sectoral infrastructure emissions goals

Are mitigation targets, policies and adaptation commitments specific to infrastructure-related sectors addressed in the country's Nationally Determined Contribution (NDC) document submitted to the UNFCCC?

Scoring: 0 = No

a–c) Mitigation targets: energy, transport, water/ waste
   +3: One point for each sector with mitigation targets
d–f) Policies: energy, transport, water/waste
   +3: One point for each sector with policies, plans or actions
g–i) Adaptation commitments: energy, transport, water/waste
   +3: One point for each sector with adaptation commitments

Source: Economist Impact analyst rating

5.4.2) Sufficiency of national climate commitments

What is the quality of the country's climate policies and commitments, assessed relative to its emissions obligations?

Composite score of the following:

a) Sufficiency of policies and actions
   Score 0–4 where 4 = sufficient
b) Sufficiency of NDC target
   Score 0–4 where 4 = sufficient
c) Comprehensiveness of net zero target
   Score 0–3 where 3 = most comprehensive

Source: Climate Action Tracker

5.4.3) Emissions reduction strategies

Are regulations, incentives and strategies in place to reduce carbon emissions from infrastructure construction and operations?

Scoring: 0 = No

a) Regulations set environmental targets for infrastructure

   +1: Regulations or strategies are in place to reduce emissions during construction and operations, such as company/project-level emission targets or carbon trading markets

b) Incentives to use carbon reduction technologies

   +1: There are incentives that promote green energy use or adoption of carbon reduction technologies for infrastructure construction and operations

Source: Economist Impact analyst rating

5.4.4) Renewable projects' share of infrastructure investment

What share of the country's infrastructure investment in the past five years is accounted for by renewable projects?

Note: total investment refers to any projects with financing from the private sector, state-owned entities (SOEs) or development finance; excludes projects directly funded by the government.

Scoring: renewables spending as a share of infrastructure investment, where:

0 = Less than 10%

1 = 10–20%

2 = 20–30%

3 = 30% or more

To account for progress already made toward renewable energy, a bonus point is given if at least 50% of a country's power is generated through renewable sources (Canada, Norway, Sweden), and two bonus points for at least 75% (Brazil). The maximum possible score remains three.

Sources: IJ Global; Enerdata

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