G20 INDONESIA 2022

INFRASTRUCTURE WORKING GROUP

Compendium of Quality Infrastructure Investment Indicators

Developed for the G20

Guidance Note

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IMPORTANT NOTICE

This Compendium of Quality Infrastructure Indicators provides a menu of voluntary, non-binding, non-prescriptive and customizable indicators. These indicators are for reference and information purpose，refer only to the individual infrastructure project, and *should not be perceived as project sustainability standards*. They allow countries to take into account national circumstances, local laws and regulation. The indicators are presented in such a way to be adaptable to different country circumstances, sectors, and approaches, in line with the voluntary and non-binding nature of the QII principles. The indicators are drawn from existing indicator frameworks that are already in use by some countries, International Organizations, Multilateral and Regional Development Banks. The Compendium provides a comprehensive menu of indicators that stakeholders can choose from on a voluntary basis; not all will be applicable to all projects in all contexts. The tiering system recognizes the uneven coverage for some indicators across countries. The Guidance Note is a collection of technical materials within a literature review.

This Guidance Note complements the Compendium of QII indicators, which are a menu of voluntary, non-binding, non-prescriptive and customizable indicators that stakeholders can tailor to their individual needs. The Compendium of indicators could help highlight specific infrastructure projects' alignment with QII principles as appropriate and on a voluntary basis, and identify the channels through which different QII principles are met. Where appropriate, such indicators can help inform decision-making on the design, building, operation, and maintenance of infrastructure assets. For those stakeholders that are interested in measuring project results, the indicators would also permit the ex-ante measurement and monitoring of achievements during the project's lifetime.

The development of a Compendium of indicators to operationalize QII principles draws from existing indicator frameworks currently used by countries and different organizations. Some of the sources consulted include results frameworks in use by countries or regional organizations such as the European Environment Agency's (EEA), DFI's Harmonized Indicators for Private Sector Operations (HIPSO),[1] and frameworks used by United Nations Agencies, Organization for Economic Cooperation and Development (OECD), World Bank Group (WBG), Regional Development Banks including the Asian Development Bank (ADB) and Inter-American Development Bank (IDB). Specific international organizations such as International Telecommunication Union (ITU) and International Energy Agency (IEA) were consulted for sector Annexes. From these sources, indicators that are both relevant to the QII principles and meet the selection criteria specified in the ToR were identified. For example, indicators such as "ambient concentrations of air pollutants in urban areas", a potential measure of the positive impacts of an urban transportation investment, were not chosen, as data are not readily available from countries. The sustainability indicators are consistent with Green Bond Principles and associated indicators.

The development of the Compendium of QII indicators is informed by a literature review of existing indicators already use. This process drew on evaluation principles found in resources such as Evaluation Cooperation Group (ECG) Big Book on Good Practice

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[1] These include Asian Development Bank (ADB), African Development Bank (AfDB), Belgian Investment Company for Developing Countries (BIO), Banque Ouest Africaine de Developpement (BOAD), Black Sea Trade and Development Bank (BSTDB), CDC Group, Compañía Española De Financiación Del Desarrollo (COFIDES), Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Finnish Fund for Industrial Cooperation Ltd. (Finnfund), Netherlands Development Finance Company (FMO), Inter-American Development Bank (IDB), Inter-American Investment Corporation (IIC), Islamic Corporation for the Development of the Private Sector (ICD), International Finance Corporation (IFC), Investment Fund for Developing Countries (IFU), Multilateral Investment Guarantee Agency (MIGA), Norwegian Investment Fund for Developing Countries (Norfund), Oesterreichische Entwicklungsbank (OEeB), Overseas Private Investment Corporation (OPIC), The Private Infrastructure Development Group (PIDG) Trust, Société de Promotion et de Participation pour la Coopération Economique (PROPARCO), Swiss Investment Fund For Emerging Markets (SIFEM), and Swedfund International AB (Swedfund). See the full list of DFIs members of HIPSO.

Standards (ECG, 2012) for project assessment. These practices emphasize specific, measurable and achievable indicators that are relevant to the investment and assessed within a specific time frame.

This Guidance Note provides for each indicator in the Compendium: (i) the definition; (ii) units of measurement; (iii) relevant links to reference sources; (iv) potential data sources for the indicator; and (v) list of some of the institutions that currently utilize the indicator. Most indicators are drawn from more than one entity, leading to inevitable minor differences in their presentation.[2] The institutions listed as utilizing the indicators are for illustrative purposes and are not exhaustive.

All indicators in the QII indicator matrices are grouped into six matrices composed of: (1) cross-cutting, (2) energy, (3) water & wastewater, (4) ICT, (5) transportation, and (6) urban infrastructure indicators. The cross-cutting indicators matrix is composed of a set of indicators that are sector agnostic and can be applied across infrastructure sub-sectors. The cross-cutting indicators are intended to be complemented by sector-specific indicators. All indicators in the matrices are organized by QII principle for ease of reference only.

The indicators are tiered based on coverage by countries and data availability. The focus is on "Tier 1" indicators which are conceptually clear with a recognized methodology and for which data would be readily available. "Tier 2" indicators have also been included in line with the menu-based approach. These indicators are conceptually clear with a recognized methodology but coverage across countries is uneven because data for these indicators may not be as easily available, or due to other constraints. All indicators have

[2] Below are examples of cross-cutting indicators, where minor differences in presentation of the definition against one of the original sources exists.

Definition of the QII Indicator	**Definition in the original source**
Community Development Contributions: Amount of money spent by the company towards activities that benefit local communities during the reporting period. (see HIPSO guidance)	**Community Development Contributions:** Amount of money spent by the client towards activities that benefit local communities during the reporting period. (HIPSO)
Disability & special needs integration: Yes, if the project ensures that infrastructure services are fully accessible to disabled, disadvantaged, and other groups with special needs. It is designed and implemented following accessibility standards and collects and implement feedback from these target groups, ensuring that their input and needs are taken into consideration throughout the project life cycle.	**Disability & special needs integration:** Infrastructure projects should ensure that infrastructure services are fully accessible to disabled, disadvantaged, and other groups with special needs. Infrastructure projects should be designed and implemented following universal accessibility standards. Infrastructure projects should collect and implement feedback from these target groups, ensuring that their input and needs are taken into consideration throughout the project life cycle. (SII)

been clearly labeled as “Tier 1” or “Tier 2”. The proposed “Tier 2” indicators aim to expand the menu of possible indicators.

The Guidance Note presents the indicator details for:

- Cross-cutting Indicators
- Sector Annex covering:
  - Energy
  - Water & Wastewater
  - ICT
  - Transportation
  - Urban Infrastructure

ACRONYMS

ADB	**Asian Development Bank**
ADSL	Asymmetric Digital Subscriber Line
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
BNDES	Brazilian Development Bank
BoP	Base of the Pyramid
CDC	Commonwealth Development Corporation (now British International Investment)
CNG	Compressed Natural Gas
DBSA	Development Bank of Southern Africa
DFI	Development Finance Institution
DSL	Digital Subscriber Line
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
ECG	Evaluation Cooperation Group
EEA	European Environment Agency
EITI	Extractive Industries Transparency Initiative
ERR	Economic Rate of Return
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESS	Environmental and Social Standards
FTE	Full-time equivalent
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
HIPSO	Harmonized Indicators for Private Sector Operations
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization
ICT	Information and communication technology
IDB	Inter-American Development Bank
IEA	International Energy Agency
IFC	International Finance Corporation
ILO	International Labor Organization
ILS	Instrument Landing System
IMF	International Monetary Fund
IPIECA	International Petroleum Industry Environmental Conservation Association
IRENA	International Renewable Energy Agency
IRR	Internal Rate of Return
IsDB	Islamic Development Bank
ISO	International Organization for Standardization
ISO	International Organization for Standardization
ITF	International Transport Forum
ITU	International Telecommunication Union
IWA	International Water Association
IXP	Internet exchange Point
LCOE	Levelized cost of electricity
LNG	Liquefied Natural Gas
MAPS	Methodology for Assessing Procurement Systems
MDB	Multilateral Development Bank
MNO	Mobile Network Operator
MSW	Municipal Solid Waste

NDB	New Development Bank
NDC	Nationally Determined Contributions
NGO	Non-governmental Organization
O&M	Operation and Maintenance
OECD	Organization for Economic Co-operation and Development
P-FRAM	PPP Fiscal Risk Assessment Model
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
QII	Quality Infrastructure Investments
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SAM	Social Accounting Matrix
SDG	Sustainable Development Goals
SEforALL	Sustainable Energy for All
SII	Sustainable Infrastructure Indicator
SME	Small and Medium-sized Enterprises
SuM4All	Sustainable Mobility for All
ToR	Terms of Reference
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCWA	United Nations Economic and Social Commission for Western Asia
UNFCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
WBG	World Bank Group
WHO	World Health Organization
WRI	World Resources Institute
WTO	World Trade Organization

1. Cross-cutting Indicators

The Compendium of indicators includes a cross-cutting QII indicators matrix composed of a set of indicators that are sector agnostic and can be applied across infrastructure sub-sectors even though their relevance is not universal. This is consistent with the menu-based approach adopted for the Compendium. The cross-cutting indicators matrix is intended to be complemented with the sector-specific QII indicator matrices which are tailored to capture sector-specific contexts of projects. All indicators in the matrices are organized by QII principle.

The cross-cutting QII indicators draw from a range of existing relevant indicators currently utilized internationally by different organizations. Care has been taken to select indicators that are adopted and recognized as widely as possible by countries. For example, several indicators have been mapped to the QII principles from the DFI's Harmonized Indicators for Private Sector Operations (HIPSO) – which are a set of harmonized indicators adopted by 28 development finance institutions. The cross-cutting indicators matrix also draws from frameworks such as "A Common Set of Aligned Sustainable Infrastructure Indicators (SII)" which identifies common elements used by multilateral development banks around sustainable infrastructure. A few indicators have been mapped to QII principles from widely adopted reporting frameworks such as the Global Reporting Initiative (GRI) sustainability reporting framework which is widely used by multinational organizations, governments, and industry groups in more than 90 countries.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator* | *Unit*	**Direct jobs <u>supported</u> by the project (Operations and Maintenance)** (Tier 1) | #
	Definition	Number of full-time equivalent workers, as per local definition, working for the client company or investment project at the end of the reporting period unless there is seasonal variation (<u>see HIPSO guidance</u>). This includes individuals hired directly and individuals hired through third party agencies, as long as those individuals provide services related to the operations and maintenance of the client company or investment project. This also includes full-time equivalent worked by seasonal, contractual, and part-time workers.
	Data source	Financial/Operational reports, other project legal agreements

	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (BNDES), Indonesia (Statistics)
2	*Indicator | Unit*	**Direct jobs created by the project (Operations and Maintenance)** (Tier 1) | #
	Definition	Number of new full-time equivalent workers, as per local definition, that are hired as a direct consequence of the investment project implementation during the reporting period (see HIPSO guidance). This includes individuals hired directly and individuals hired through third party agencies, as long as those individuals provide services related to the operations and maintenance of the investment project. This also includes new full-time equivalent work by seasonal, contractual and part-time workers. Existing workers on the records of the client company prior to the investment project are not to be included in this indicator, except where the base case establishes that existing jobs are terminating without the investment project.
	Data source	Financial/Operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (BNDES), UK (Transport for London)
3	*Indicator | Unit*	**Construction jobs (Temporary Construction)** (Tier 1) | #
	Definition	Number of temporary full-time equivalent workers hired for the construction of the investment project's hard assets during the reporting period. (see HIPSO guidance). *Depending on context, the indicator may be relevant for projects applying labor-based methods as well as those seeking to minimize physical labor in favor of using technology.*
	Data source	Financial/Operational Reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (BNDES)

4	*Indicator* | *Unit*	**Development of employee skills** (Tier 2) | #
	Definition	Number of people* attending employee skills/training programs. *All participants, except participants who were already engaged in education/training upon entering the skills development program (see European Social Fund guidance)
	Data source	Project documents
	Institutions applying the indicator	European Social Fund, IFC
5	*Indicator* | *Unit*	**Total employment effects** (Tier 2) | FTE #
	Definition	The project's impact on employment adjusted by project size, considering three layers of employment effects: • Direct effects, such as jobs created by a company as a result of a project. • Indirect effects, which occur downstream and/or upstream from the investment project or company. An example would be jobs created along a company's supply chain, or as a result of a downstream industry's growth. • Induced effects, which are caused by an increase in domestic consumption resulting from an increase in direct and indirect employment and income. Induced impacts include newly created jobs that cater to the increased consumption in the economy. Several methodologies exist for evaluating indirect and induced jobs. For example, IFC's methodology is based on sector-specific input-output models (see IFC guidance). Another example is CDC's (now British International Investment) methodology where basic headcount and financial data (revenues, earnings, taxes and wages) from the business are fed into a set of multipliers derived from social accounting matrices (SAMs) and labor force data to yield an estimate of the total number of jobs and livelihoods likely to have been supported by the financial flows through the business and its supply chain in a given year (see CDC).
	Data source	Calculated based on project data

	Institutions applying the indicator	IFC, CDC
6	*Indicator | Unit*	**Domestic purchases** (Tier 2) | Currency per year and % of total value
	Definition	Value of company's purchases of goods and services from domestic suppliers (including raw materials, security, gardening, cleaning, and marketing & research from local companies) during the reporting period. (see HIPSO guidance)
	Data source	Financial/Operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
7	*Indicator | Unit*	**Private capital mobilization** (Tier 1) | Currency
	Definition	Amount of financing mobilized for a project from private sector investors including from new investors (e.g., institutional investors) and/or new asset classes.
	Data source	Project financial documents, other Project documents
	Institutions applying the indicator	WBG
8	*Indicator | Unit*	**Time between contract signature and financial close** (Tier 1) | Day
	Definition	The amount of time elapsed between contract signing and financial close for an infrastructure project. (see APMG PPP Certification Program for guidance)
	Data source	Project financial documents, other Project documents
	Institutions applying the indicator	ADB, EBRD, IDB, IsDB, WBG, PPIAF

9	*Indicator* | *unit*	**Technical and specialized skills for suppliers** (Tier 2) | Y/N
	Definition	Yes, if the project has identified skill or capability gaps in the local workforce and designed funded training and capacity building programs to address them. (see UNECE guidance) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	UNECE
10	*Indicator* | *unit*	**Business innovation** (Tier 2) | Y/N
	Definition	Yes, if the project or company adopts or operationalizes a product, internal process, technology or financing structure that is new or not widely used in the domestic sector. Note that "product" includes both physical goods as well as financial products while "domestic sector" can refer to the national market in small countries and regional markets in larger countries. The indicator captures the adoption or operationalization of innovative business practices, ranging from the financial structuring of the client company to the business processes it uses to deliver products/services. The indicator can be used to track innovative technology transfer without qualifying from where the technology originated. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents, market due diligence
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (IBGE)

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator* | *Unit*	**Internal rate of return (IRR) and/or Economic rate of return (ERR)** (Tier 2) **|** %
	Definition	IRR is the expected compound annual rate of return that will be earned on a project or investment. ERR estimates take into consideration quantifiable benefits and costs to wider stakeholders such as taxes/transfers paid to government, reduction in CO2 emissions, improvements in public health where there is a clear attributable and measurable channel for the project to lead to these benefits. Adjustments of financial cashflows using shadow prices for such costs and benefits allow the estimation of a project's economic cash flows and calculation of the project's ERR. (see WBG guidance 1 and 2) *Entities are advised to gather information on the calculation methodology and the drivers of the returns to ensure consistency across projects.*
	Data source	Project financial statements, other project documents
	Institutions applying the indicator	Asian Development Bank, InterAmerican Development Bank, IFC, MDBs Infrastructure Cooperation Platform (see SII), Southern African Power Pool
2	*Indicator* | *unit*	**Additional capacity per currency invested** (Tier 1) **|** km or GWh or passenger or waste collected /currency
	Definition	Measures the efficiency of investment in additional infrastructure capacity. For example, for roads, road length divided by investment; for urban transport, revenue passenger kilometers divided by public transport provision costs (estimated as fare-box revenue plus subsidy); for waste sector, cost per ton of waste collected and disposed / treated or Capex/tonnes per annum of municipal solid waste/bio/hazardous waste treated. The calculation may consider either only initial construction costs or the project's life-cycle costs. It is preferable to apply this indicator to greenfield investment due to the complexity of identifying additional capacity enabled by brownfield investments.

	Data source	Project financial statements, other project documents
	Institutions applying the indicator	IFC, ADB, IDB, Brazil (BNDES), South Africa (BDSA)
3	*Indicator* | *Unit*	**Technological innovation** (Tier 2) **|** Y/N
	Definition	Yes, if the project introduces an innovation (e.g., deployment of new network technologies such as 4G/5G that will induce other mobile network operators (MNOs) to upgrade their networks via innovation and competition, demonstration, and replication channels). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project document
	Institutions applying the indicator	IFC, Brazil (BNDES, IBGE)
4	*Indicator* | *Unit*	**Risk mitigation measurement** (Tier 2) | Y/N
	Definition	Yes, if the project identified material risks to the project and appropriately allocated the risks. Material risks include, but are not limited to: • Construction risks (e.g., construction cost overruns) • Operations and maintenance risks (e.g., higher than expected operations and maintenance costs) • Demand risks (e.g., the risk that the project will not be used by those it is intended to serve to the extent required) • Collection risks (e.g., the risk that the project's end users or beneficiaries will not pay or will not be able to pay for the service) • Inflation, currency, and exchange risks • Security or other in-country risks that could impact the successful implementation of the project.

		Risks are appropriately allocated between the public party, private party (including the engineering, procurement and construction contractors), the project sponsors and lenders. (see ADB guidance) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents, project's risk matrix
	Institutions applying the indicator	UNECE, Asian Development Bank, Public-Private Infrastructure Advisory Facility (PPIAF), South Africa (DBSA), Brazil (BNDES)
5	*Indicator | unit*	**Sustainable pricing mechanisms** (Tier 2) | Y/N
	Definition	Yes, if the project uses appropriate and flexible pricing for infrastructure services (e.g., user charges, congestion prices) to encourage more efficient use of infrastructure and to help decide on appropriate levels of infrastructure provision. It is important, particularly in a fiscally constrained environment, for decision-makers to consider how demand for scarce infrastructure can be efficiently managed. (See OECD guidance) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	OECD
6	*Indicator | Unit*	**Value-for-money analysis conducted** (Tier 2) | Y/N
	Definition	Yes, if the project has been selected based on the analysis of the net benefit it delivers relative to alternatives.
	Data source	Project documents
	Institutions applying the indicator	PPIAF, ADB, OECD, Ukaid

Principle 3: Integrating environmental consideration to infrastructure investment

Project Indicators		
1	*Indicator | Unit*	**GHG Emissions reduction/avoided** (Tier 1) | tonnes per year
	Definition	Amount of greenhouse gas (GHG) emissions or emissions avoided during the reporting period, measured in tonnes. Project-level emissions information provided by client can be used to calculate derivative indicators (e.g., emissions savings /reduction /avoidance) according to the most relevant methodology. (see HIPSO guidance)
	Data source	Project documents, any approved United Nations Framework Convention on Climate Change (UNFCC) or Multilateral Development Banks (MDBs) climate finance tracking methodology.
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, World Resources Institute (WRI), NDB, Caribbean Development Bank, Brazil (BNDES), South Africa (DBSA), Indonesia (BPS - Statistics), India Ministry of Power, Turkey Ministry of Energy and Natural Resources
2	*Indicator | unit*	**Local air pollutants reduced** (Tier 2) | tonnes per year
	Definition	Amount of local air pollutants reduced by the project (see AIIB guidance). Tonnes of NOx and SOx per year.
	Data source	Project Environmental and Social Impact Assessment (ESIA) or Environmental and Social Action Plan (ESAP)
	Institutions applying the indicator	Asian Infrastructure Investment Bank (AIIB), Brazil (BNDES), India (Ministry of Environment Forest and Climate Change), Saudi Arabia
3	*Indicator | Unit*	**Energy consumption (conservation)** (Tier 2) **|** kWh or MJ
	Definition	Energy consumption in infrastructure operation (i.e., operation of water and wastewater, transport, ICT, waste infrastructure) measured in kilowatt-hours or megajoules of energy consumed during the reporting period. Distinguishing heat and electricity consumption is recommended. This indicator may be used to measure performance (e.g., kWh/m3 for water supply system) or could be an absolute

		measure (e.g., before and after comparison). (see HIPSO guidance) Amount of energy saved compared to baseline. (see NDB guidance)
	Data source	Project technical documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, New Development Bank (NDB), MDBs Infrastructure Cooperation Platform (see SII), Brazil (SNIS), Mexico (INEGI)
4	*Indicator | unit*	**Water consumption (conservation)** (Tier 2) **|** m^3
	Definition	Water usage in infrastructure operation (i.e., operation of water and wastewater, transport, ICT, waste infrastructure) may include: • Total water withdrawal • Total salt/brackish water withdrawn • Total municipal water supplies (or from other water utilities) • Total water from all other sources • Water returned to the source of extraction at similar or higher quality as raw water extracted • Amount of reused water. This indicator may be used to measure performance or could be an absolute measure (e.g., before and after comparison).
	Data source	Project operational documents
	Institutions applying the indicator	IDB, ITU, MDBs Infrastructure Cooperation Platform (see SII), Mexico (SENER), South Africa (Eskom)
5	*Indicator | Unit*	**Sustainability certification** (Tier 1) **|** Y/N
	Definition	Yes, if project secures voluntary sustainability certification from a domestically or internationally recognized sustainability certifying authority whose standards are consistent with the United Nations Sustainable Development Goals 2030, such as the ISO 14000 family of standards.

		Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.
	Data source	E&S project documents, other project legal agreements
	Institutions applying the indicator	International Organization for Standardization (ISO), IFC, European Bank for Reconstruction and Development (EBRD), ADB, Indonesia (BPS – Statistics), Turkey, CAEPI
6	*Indicator | unit*	**Adopts an environmental and social mitigation hierarchy framework** (Tier 1) **|** Y/N
	Definition	Yes, if the project will assess, manage and monitor the environmental risks and impacts of the project throughout the project life cycle, so as to meet the requirements of a mitigation hierarchy framework in accordance with international standards. The World Bank Group mitigation hierarchy provided in ESS1 or other recognized frameworks by MDBs could be used. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Operational reports, other project legal agreements. For more information: refer to the latest World Bank Group E&S framework
	Institutions applying the indicator	WBG, Green Climate Fund, AIIB, South Africa (DBSA)
7	*Indicator | Unit*	**Provides tools, and data to improve E&S practices for stakeholder engagement** (Tier 2) **|** Y/N
	Definition	Yes, if the project develops and implements a Stakeholder Engagement Plan (SEP) proportionate to the nature and scale of the project and taking into consideration its potential risks and impacts in accordance with international standards. The World Bank Group mitigation hierarchy provided in Environmental and Social Standards (ESS10) could be used. Stakeholder refers to individuals or groups who: (a) are affected or likely to be affected by the project (project-affected parties); and (b) may have an interest in the project (other interested parties). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*

	Data source	Operational reports, other project legal agreements For more information: refer to the latest World Bank Group E&S framework
	Institutions applying the indicator	WBG, Green Climate Fund, AIIB

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator | Unit*	**Improvement in employee technical and disaster management skills** (Tier 2) **|** Y/N
	Definition	Yes, if there exists a training program that builds network of skilled employees in disaster risk management including service continuity plans in the event of disruption of critical infrastructure assets (see European Union RESCCUE) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project operational documents
	Institutions applying the indicator	European Union, UN Habitat
2	*Indicator | Unit*	**Design durable to disaster risks** (Tier 2) **|** Y/N
	Definition	Yes, if the project includes measures in the project design and surrounding areas (where possible) to reduce stressors, shocks, and exposure and vulnerability to disaster events such as severe winds, landslides, floods, volcanic eruptions and earthquakes and droughts. This indicator covers infrastructure assets that incorporate or are retrofitted to incorporate measures to strengthen their physical ability to withstand the impacts of extreme weather events, geophysical hazards, sea level rise, changes in precipitation patterns and rising temperatures. These measures include (but are not limited to):

		• transmission and distribution lines that incorporate measures such as “low-sag” conductors, increased height of poles supporting power lines, and installing conductors with hotter operating limits to address climate risks; • mini and micro hydropower plants incorporating engineering options and designs including sediment removal technology, auxiliary spillways, settling basins, and underground power houses; • dams strengthened to manage increased water flows from glacial melting and increased precipitation; • wind turbines that can operate with and withstand higher wind speeds, gusts, and direction changes; • roads built or improved that incorporate adjustment in the choice of construction materials (e.g., for road surfaces to avoid melting from higher temperatures); or raising crest level; • septic tanks and superstructures of public toilets, school toilets, and community latrines constructed above flood levels. Alternatively, indicator can be measured by the total number of infrastructure assets made climate and disaster resilient. (See ADB Tracking Indicator Definitions) *Entities who wish to gather additional information on the quality of the result reported may use ‘commentary’ to do so.*
	Data source	Project operational documents, insurance documents
	Institutions applying the indicator	UNECE, ADB
3	*Indicator | unit*	**Budget committed to disaster and climate risk resilience measures** (Tier 2) **|** Currency
	Definition	Project budget allocated for incorporation of disaster resilience measures such as implementation of an early warning system. (see A Framework and Principles for Climate Resilience Metrics in Financing Operations)
	Data source	Project financial documents, insurance documents
	Institutions applying the indicator	AfDB, ADB, AIIB, EBRD, EIB, IADB, IsDB, International Development Finance Club

4	*Indicator* | *Unit*	**Disaster risk financing** (Tier 2) **|** Currency
	Definition	Total value of disaster risk financing secured to provide contingent disaster financing or transfer disaster risk. Contingent disaster financing involves preapproved lines of financing provided that can disburse in the immediate aftermath of a disaster to provide timely budget support, alleviating fiscal pressures. The achievement of agreed prior policy actions enables eligibility to disburse funds. However, funds only disburse, in part or in full, in the event of a pre-agreed trigger event. Disaster risk transfer instruments entail regular, typically annual, payments of premiums and coupons in return for promises for compensation for losses caused by perils covered under the terms of a contract. They include infrastructure, property, crop, livestock, business interruption, and micro insurance products covering losses triggered by extreme weather and/or geophysical events. They also include sovereign and/or sub-sovereign parametric disaster insurance products, catastrophe bonds, and resilience bonds. (See ADB Tracking Indicator Definitions)
	Data source	Project financial documents, insurance documents
	Institutions applying the indicator	ADB

Principle 5: Integrating social considerations in infrastructure investment

Project Indicators		
1	*Indicator* | *Unit*	**Female direct jobs <u>supported</u> by the project (Operations and Maintenance)** (Tier 2) **|** # or %
	Definition	Number or share of full-time equivalent female workers, as per local definition, working for the client company or investment project at the end of the reporting period unless there is seasonal variation (see HIPSO guidance). This includes female individuals hired directly and female individuals hired through third party agencies, as long as those female individuals provide services related to the operations and maintenance of the client

		company or investment project. This also includes full-time equivalent worked by seasonal, contractual and part-time workers.
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Saudi Authority for Industrial Cities and Technology Zones
2	*Indicator | Unit*	**Female direct jobs created by the project (Operations and Maintenance)** (Tier 2) **|** # or %
	Definition	Number or share of new full-time equivalent female workers, as per local definition, that are hired as a direct consequence of the investment project implementation during the reporting period. (see HIPSO guidance) This includes female individuals hired directly and female individuals hired through third party agencies, as long as those individuals provide services related to the operations and maintenance of the investment project. This also includes new full-time equivalent work by female seasonal, contractual and part-time workers. Existing female workers on the records of the client company prior to the investment project are not to be included in this indicator, except where the base case establishes that existing female jobs are terminating without the investment project.
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Saudi Authority for Industrial Cities and Technology Zones
3	*Indicator | unit*	**Community development contributions** (Tier 1) **|** Currency
	Definition	Amount of money spent by the company towards activities that benefit local communities during the reporting period. (see HIPSO guidance)
	Data source	Financial/Operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group

4	*Indicator | Unit*	**Fatal/non-fatal occupational accidents** (Tier 1) **|** #
	Definition	Number of workplace accidents, defined as any personal injury, disease or death resulting from an occupational accident. An occupational injury could be fatal (as a result of occupational accidents and where death occurred within one year of the day of the accident) or non-fatal with lost work time. (see ILO guidance)
	Data source	Project operational documents
	Institutions applying the indicator	International Labor Organization (ILO), IFC, South Africa (Eskom)
5	*Indicator | unit*	**Infrastructure improvement in local community** (Tier 1) **|** Y/N
	Definition	Yes, if the project improves direct/indirect impact on cultural, historic, recreational, or other resources or services important to the local community as identified through, for example, a stakeholder engagement and public participation process (see UNECE guidance) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	UNECE
6	*Indicator | unit*	**Rural infrastructure assets established or improved** (Tier 1) **|** Km/GWh/m^3
	Definition	Total number of rural infrastructure assets established or improved by the project. Infrastructure assets include (but are not limited to): • rural roads constructed or rehabilitated, measured by length of rural road networks built or upgraded, expressed in kilometers; upgrading includes all activities to restore a degraded road to its original intended design capacity (repair or rehabilitation) and improve on its design capacity; only upgrading of road signage is excluded; • rural electricity facilities constructed or rehabilitated for generation, transmission, or distribution of grid (expressed in GW in 24 hours) and off grid (expressed in total GW) energy; they include self-generated electricity for those countries where access to electricity

		has been assessed through surveys by government or government agencies; and the data do not capture unauthorized connections; • rural water facilities constructed or rehabilitated for supply (expressed in m3) and sanitation (expressed in m3); new or improved water supply refers to piped or non-piped water supply systems that are of a higher order than the system that the rural households used before; and new or improved sanitation and waste management refers to a variety of sanitation and waste management systems provided to rural households that are of higher order than the one previously being used; • increased telecommunication and ICT infrastructure in the rural areas. (See ADB Tracking Indicator Definitions)
	Data source	Project documents
	Institutions applying the indicator	ADB, Indonesia (BPS – Statistics), India (Department of Drinking Water and Sanitation – Ministry of Jal Shakti)
7	*Indicator | unit*	**Disability & special needs integration** (Tier 2) **|** Y/N
	Definition	Yes, if the project ensures that infrastructure services are fully accessible to disabled, disadvantaged, and other groups with special needs. It is designed and implemented following accessibility standards and collects and implement feedback from these target groups, ensuring that their input and needs are taken into consideration throughout the project life cycle. (see A Common Set of Aligned Sustainable Infrastructure Indicators (SII)).
	Data source	Project documents
	Institutions applying the indicator	MDBs Infrastructure Cooperation Platform (see SII)
8	*Indicator | Unit*	**Stakeholder engagement** (Tier 1) **|** Y/N, # of beneficiaries
	Definition	Yes, if the project identifies and engages stakeholders, (including women, children, people with disabilities, linguistic, religious and ethnic minorities, and vulnerable populations and affected communities) to

		fully understand their needs and incorporate them into the project. Official public consultation, grievance mechanisms and other engagement processes are in place to ensure the adequate participation of the affected parties. A clear stakeholder engagement and consultation plan is used to monitor progress. (see A Common Set of Aligned Sustainable Infrastructure Indicators (SII) and UNICEF). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Stakeholder engagement plan, project documents
	Institutions applying the indicator	United Nations Children's Fund (UNICEF), ADB, EBRD, WBG, AIIB, Mexico (INEGI)
9	*Indicator* | *unit*	**Compensation to displaced inhabitants** (Tier 2) **|** Currency
	Definition	Nature of compensation to be provided to affected communities. *The indicator should be adapted to the local context given the variability of requirements and practices related to compensation across countries and institutions (SII).*
	Data source	Stakeholder engagement plan, project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, AIIB, WBG
10	*Indicator* | *unit*	**Design minimizes land acquisition and involuntary resettlement** (Tier 2) **|** Y/N
	Definition	Yes, if the project considers feasible alternative project designs to avoid or minimize physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits, paying particular attention to impacts on the poor and vulnerable. To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. To avoid forced eviction. To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use. (IFC Performance Standard also captured in:

		EBRD Performance Requirement, ADB Involuntary Settlement Safeguards, AIIB Resettlement Planning Framework) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents, ESIA, ESAP
	Institutions applying the indicator	IFC, Green Climate Fund, ADB, EBRD, AIIB

Principle 6: Strengthening infrastructure governance

Project Indicators		
1	*Indicator | Unit*	**Fiscal sustainability** (Tier 2) **|** Y/N
	Definition	Yes, if there is an assessment of the fiscal implications of the project such as contingent liabilities. This can be done using the toolkit from the IMF and the World Bank's PPP Fiscal Risk Assessment Model (P-FRAM) to assess potential fiscal costs and risks. The PFRAM is an analytical tool to assess systematically the potential macro-fiscal implications of Public-Private Partnership projects (PPPs). Based on international accounting and statistical standards, the PFRAM allows the user to estimate the macro-fiscal implications of PPP projects—i.e., their impact on the fiscal deficit, gross and net debt, and stock of contingent liabilities for government. It also provides a framework to identify fiscal risks linked to a PPP project, evaluate them, and discuss appropriate mitigation measures. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documentation, IMF
	Institutions applying the indicator	IMF, WBG
2	*Indicator | unit*	**Governance body members that have received training on anti-corruption** (Tier 2) **|** # and %

	Definition	Total number and share of members in the project company or implementing unit's governance body that received anti-corruption training to build the internal and external awareness and the necessary capacity to combat corruption. The governance bodies that exist within the organization include: the board of directors, management committee, or similar body for non-corporate organizations. (See GRI guidance)
	Data source	Company documents
	Institutions applying the indicator	Global Reporting Initiative (GRI) sustainability reporting framework widely used by multinational organizations, governments, small and medium enterprises (SMEs), NGOs and industry groups in more than 90 countries
3	*Indicator* | *Unit*	**Anti-corruption protocols & procedures** (Tier 2) **|** Y/N
	Definition	Yes, if the project develops and implements an anti-corruption and anti-bribery management system along the project life cycle, including measures that promote ethics, accountability, integrity, and transparency. The project upholds standards of conduct and goes through the appropriate channels to report wrongdoing (see SII). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documentation
	Institutions applying the indicator	MDBs Infrastructure Cooperation Platform (see SII)
4	*Indicator* | *Unit*	**Information disclosure** (Tier 2) **|** Y/N
	Definition	Yes, if the project/company has a disclosure process that is focused on ensuring that information such as the purpose, scope, costs and implementation of infrastructure projects is open and accessible to the public, and that it is disclosed in a timely manner. This means that key stakeholders such as civil society, the media and citizens can monitor this information and ultimately increase levels of accountability around decision making. (see Infrastructure Transparency Initiative) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*

	Data source	Project and company documents
	Institutions applying the indicator	Infrastructure Transparency Initiative, Brazil (BNDES)
5	*Indicator* | *Unit*	**Transparency and accountability measures in procurement and financial management supported in implementation** (Tier 2) **|** Y/N
	Definition	Yes, if measures to adopt or enforce principles of transparency and accountability in procurement and financial management are implemented in the context of the project. "Measures" include policy frameworks, compliance mechanisms, implementation mechanisms, etc. (See ADB Tracking Indicator Definitions and ADB's Governance and Anticorruption in Project Design) MAPS Methodology for Assessing Procurement Systems and other World Bank and OECD procurement tools and standards could be used to benchmark the project. (e.g., transparent and robust competitive bid-based procurement, setting up a mechanism that provides for efficient bidding and contract awards). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Financial/Operational reports, other project legal agreements
	Institutions applying the indicator	ADB

2. Energy QII Indicators

The Energy QII Indicators Matrix covers the power, oil and gas sectors and complements the common indicators listed in the cross-sectoral indicators matrix. Indicators in the Energy QII indicators matrix can be applied to projects that support the four segments of the electricity supply chain: *generation*, *transmission*, *distribution*, and *retail* (Figure 2.1) as well as the full oil & gas supply chain: *upstream*, *midstream,* and *downstream* (Figure 2.2).

Figure 2.1 - Power sector value chain

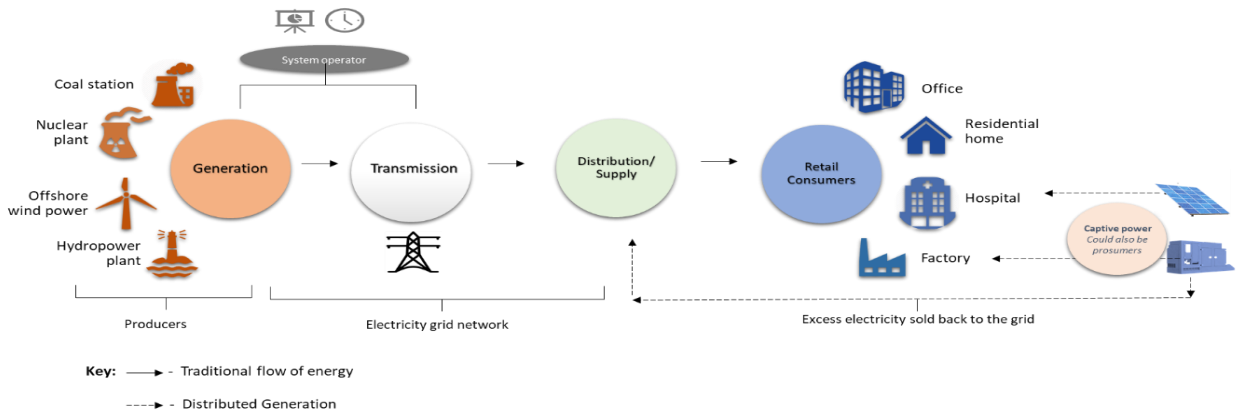
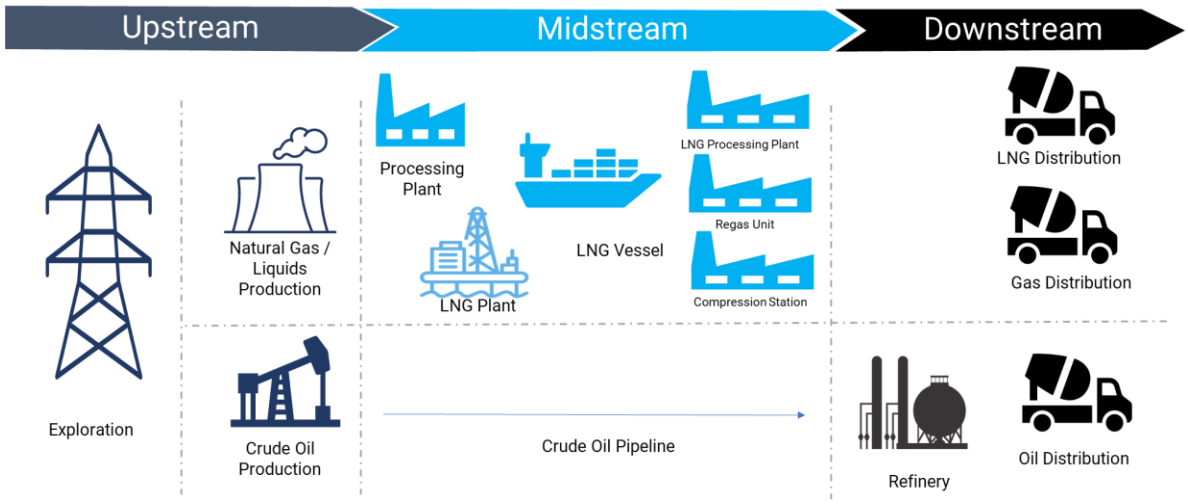


Figure 2.2 - Oil & gas sector value chain



The indicators are drawn from existing indicator frameworks utilized by international organizations, regional bodies as well as sector specific organizations such as the International Energy Agency (IEA), International Renewable Energy Agency (IRENA) and the International Petroleum Industry Environmental Conservation Association (IPIECA).

REMINDER:

The sector-specific indicators below are meant to supplement the cross-cutting indicators to form a menu of voluntary, non-binding, non-prescriptive and customizable indicators.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator* | *Unit*	**Jobs created in renewable energy and other energy transition-related fields** (Tier 2) **|** #
	Definition	Number of direct jobs created by the project in renewables, energy efficiency and energy flexibility related fields (See International Renewable Energy Agency (IRENA))
	Data source	Project documents, National statistics office
	Institutions applying the indicator	IRENA
2	*Indicator* | *Unit*	**Volume of electricity traded** (Tier 1) **|** GWh or currency per day
	Definition	Quantity and value of electricity traded between countries and on the wholesale market
	Data source	Project documents, Energy Regulator, National statistics office
	Institutions applying the indicator	ADB, WBG, IEA, Statistics South Africa, Mexico (SENER), Indonesia
3	*Indicator* | *Unit*	**Export sales** (Tier 1) **|** Currency
	Definition	Value of oil & gas export sales of the product or service over the reporting period. (see HIPSO guidance)

	Data source	Financial/Operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Argentina (Ministry of Economy), Mexico (SENER)
4	*Indicator* | *Unit*	**Domestic intermediate goods in the oil and gas sector** (Tier 2) **|** Index or %
	Definition	Share of domestic intermediate goods in the oil and gas sector. Use Social Accounting Matrix or calculate the % of domestic intermediate goods in the total cost
	Data source	SAM, Government
	Institutions applying the indicator	WBG, World Trade Organization (WTO), OECD
5	*Indicator* | *Unit*	**New electricity or gas connections** (Tier 1) **|** #
	Definition	Number of new residential connections resulting from the project
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Indonesia (BPS – Statistics)
6	*Indicator* | *Unit*	**LNG/CNG stations** (Tier 1) **|** #
	Definition	Number of new LNG/CNG stations.
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group

7	*Indicator* | *Unit*	**Duration and frequency of electricity outages** (Tier 1) **|** SAIDI/SAIFI
	Definition	Average length of power outages measured as system average duration index (SAIDI): sum of all customer interruption durations divided by total number of customers served (annual). Frequency of power outages measured as SAIFI: total number of customer interruptions divided by total number of customers served (annual).
	Data source	Project documents, Distribution or Transmission Company, Energy Regulator
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Mexico (SENER)
8	*Indicator* | *Unit*	**Average national cost of electricity generation** (Tier 1) **|** Currency / kWh
	Definition	Project lowers the average cost of electricity generation e.g., by developing a low-cost energy source that displaces more expensive power imports
	Data source	Project operational reports, Energy Regulator or System operator, Distribution company
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, South Africa (Eskom)

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator* | *Unit*	**Levelized cost of electricity (LCOE)** (Tier 2) **|** Currency per GWh
	Definition	Total cost of building and operating a power plant over its assumed lifetime (currency) divided by the energy production (GWh) (see WBG guidance)
	Data source	Project financial model, Client financial statements, Annual Reports

	Institutions applying the indicator	IEA, IRENA, WBG
2	*Indicator | unit*	**Electric power transmission and distribution losses** (Tier 1) **|** % of output
	Definition	Electric power transmission and distribution losses include losses in transmission between sources of supply and points of distribution and in the distribution to consumers, including pilferage.
	Data source	Project documents, Annual Reports, Energy Regulator, Distribution or Transmission Company
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (Central Electricity Authority), Mexico (SENER), Indonesia
3	*Indicator | Unit*	**Customers with meters** (Tier 1) **|** %
	Definition	Percentage share of customers with meters.
	Data source	Project documents, Annual Reports, Energy Regulator, Distribution or Transmission Company
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
4	*Indicator | unit*	**Reserves/resources-to-production ratio (oil & gas)** (Tier 1) **|** Years
	Definition	The number of years energy reserves/resources will last if production of energy in that year stays the same in future years. Also measures lifetime of proven energy reserves at constant consumption. Alternative indicator could be Total reserves or Depletion rate of reserves. The indicator considers fuels such as oil, natural gas, coal and uranium, and provides a relative measure of the length of time that proven reserves would last if production were to continue at current levels. (See Energy indicators for sustainable development)

	Data source	Project documents, Energy Regulator
	Institutions applying the indicator	IAEA, UN, IEA, Eurostat, EEA, Argentina (Ministry of Economy), Mexico (SENER), Indonesia
5	*Indicator | Unit*	**New technology to improve power network infrastructure reliability and efficiency implemented** (Tier 2) **|** Y/N
	Definition	Yes, if the project introduces or operationalizes new technology to improve reliability and efficiency, including systems to maintain control of the distribution network, monitor consumption, current loading, switching, and resolve any problems. (e.g., SCADA Supervisory control and data acquisition or similar new technology). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Energy regulators requirements, distribution companies, Operational Reports, other project legal agreements
	Institutions applying the indicator	IFC, ADB

Principle 3: Integrating environmental consideration to infrastructure investment

Project Indicators		
1	*Indicator | Unit*	**Renewable energy generated or installed** (Tier 1) **|** GWh or MW
	Definition	Renewable energy generated during the reporting period. Include the source of renewable energy generated, e.g., waste, hydropower, wind, solar, geothermal, biomass, and other sources as relevant. Alternatively: Total renewable energy capacity installed
	Data source	Project documents

	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, AIIB, India (Central Electricity Authority), Argentina (Ministry of Economy), Mexico (SENER)
2	*Indicator | unit*	**Ratio of solid waste generation to units of energy produced** (Tier 2) **|** Toe per MWh
	Definition	Amount of solid waste (excluding radioactive waste) produced annually from activities related to the extraction and conditioning of primary fuels, and waste produced in thermal power plants, expressed as weight of waste per unit of energy produced. The main purpose of this indicator is to provide information on the amount and type of solid waste generated each year by the project. (See Energy indicators for sustainable development) Measured by Tonnes of waste per unit of energy produced (tonnes of oil equivalent [toe], megawatt hours [MWh] or specific units of fuel produced).
	Data source	Project operational documents
	Institutions applying the indicator	IAEA, UN, IEA, Eurostat, EEA, Turkey (Turkstat)
3	*Indicator | Unit*	**Contribution to country's energy sector NDC target** (Tier 2) **|** Y/N
	Definition	Yes, if the project directly contributes to country's energy sector Nationally Determined Contributions (NDC) target under the Paris Agreement. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Government documents on NDC target, UNFCCC, project technical documents
	Institutions applying the indicator	WBG, UNFCCC
4	*Indicator | unit*	**Decommissioning plan (oil & gas)** (Tier 2) **|** Y/N
	Definition	Yes, if the project has an approach to planning and executing decommissioning activities for offshore and onshore assets. Does the plan include information on management of materials

		recovered from decommissioning activities including any applicable data on the percentage of materials reuse and recycling, achieved or planned, for significant decommissioning projects (i.e., for major facilities such as offshore production rigs, refineries or major pipelines / terminals)? (see IPIECA 2020th edition) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	IPIECA

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator* | *Unit*	**Energy project design incorporates climate adaptation & climate risk mitigation measures** (Tier 2) **|** Y/N
	Definition	Yes, if the project incorporates measures such as: - model climate impacts on existing and planned assets in collaboration with meteorological service - revise maintenance schedules; update hydropower operating rules - implement program for pruning and managing trees near transmission and distribution lines - undertake load forecasting using climate information - promote behavioral change measures to reduce peak consumption *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	IEA, OECD, ADB, IsDB, AfDB, IDB, WBG

Principle 5: Integrating social considerations in infrastructure investment

Project Indicators		
1	*Indicator | Unit*	**New connections to energy for underserved groups** (Tier 2) **|** # household connections
	Definition	Number of new residential connections for underserved groups resulting from the project. (see HIPSO guidance)
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
2	*Indicator | unit*	**Installation of pre-payment / smart meters** (Tier 1) **|** #
	Definition	Number of pre-payment or smart meters installed. Pre-payment meters are electricity and gas meters that work on a pay-as-you-go basis.
	Data source	Project documents, distribution company data
	Institutions applying the indicator	IFC, Turkey (EMRA)

Principle 6: Strengthening infrastructure governance

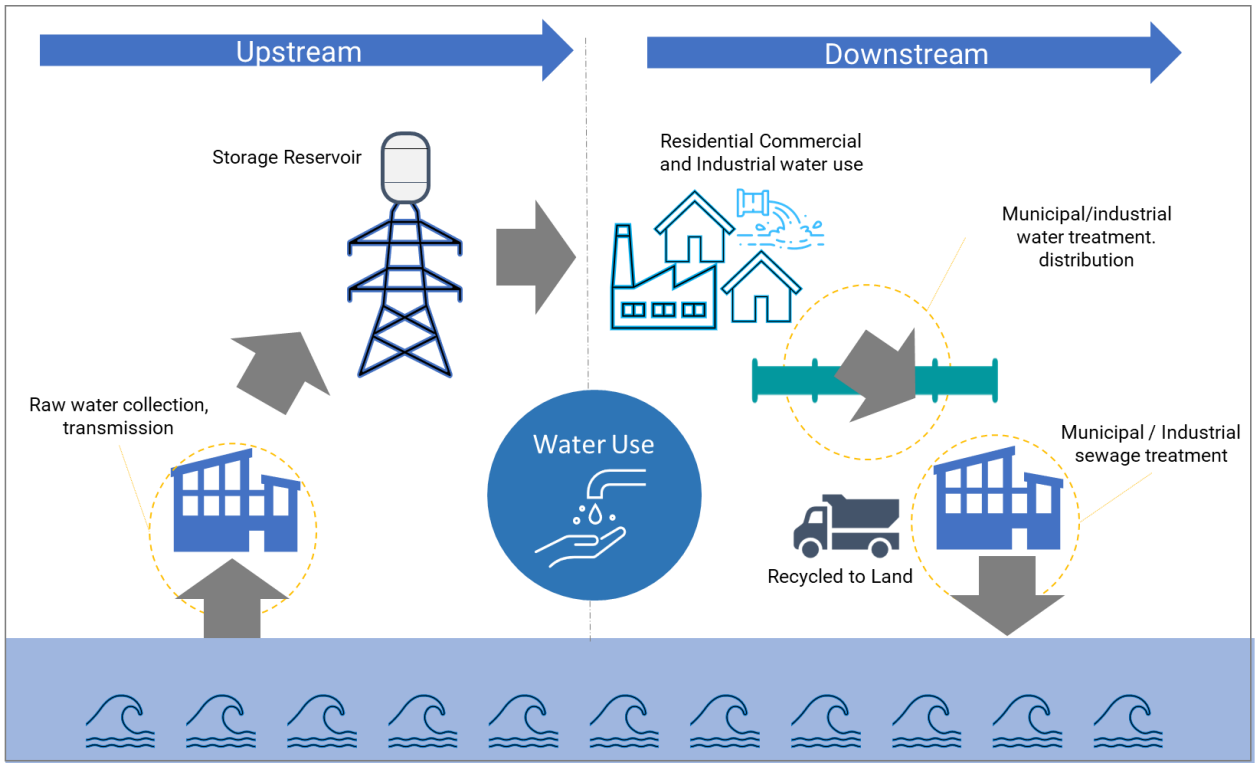
Project Indicators		
1	*Indicator | Unit*	**Fiscal transfers to the power sector** (Tier 2) **|** Currency
	Definition	Project has measurable and attributable impact on energy sector costs in the country and the value of transfers extended to the sector by the government. This includes subsidies on fuels (domestic and imported) for energy generation and on electricity served to end-users. For example, introduces a low-cost generation plant that will reduce average cost of generation substantially with ensuing reduction in need for government

		subsidies to cover the gap between generation cost and end-user tariffs. Potential reduction in transfers could be estimated ex-ante and reported depending on nature of avoided costs and data availability.
	Data source	The IEA database and statistical service provide much of the needed information required for energy subsidies. Other information can be accessed through World Bank-IMF database services, other sources could include local government approved documents.
	Institutions applying the indicator	IEA, IFC, South Africa (Department of Energy, Eskom)
2	*Indicator* | *Unit*	**Transparency of tax/royalty payments to host governments** (Tier 2) **|** Y/N
	Definition	Yes, if the project/company describes the policies and programmes it uses to promote and achieve transparency of payments to host governments. This should include: • participation in transparency initiatives; • the scope of the project's/company's compliance as it applies to national and regional reporting mandates on publication of payments; and • adoption of any other standards or practices on transparency of payments. (See IPIECA 2020th edition (Governance)) *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	IPIECA

3. Water and Wastewater QII Indicators

The Water & Wastewater QII Indicators Matrix covers the full sector value chain including: (i) raw water collection and transmission; (ii) municipal/industrial water treatment; (iii) municipal/industrial water distribution; (iv) sewerage and (v) municipal/industrial sewage treatment.

Figure A.2.1. Water and Wastewater sector overview



The indicators are drawn from existing indicator frameworks utilized by international organizations, regional bodies as well as relevant sector specific organizations such as the International Water Association (IWA) and World Health Organization (WHO).

REMINDER:

The sector-specific indicators below are meant to supplement the cross-cutting indicators to form a menu of voluntary, non-binding, non-prescriptive and customizable indicators.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator | Unit*	**Average period of water supply** (Tier 1) | # hours/day
	Definition	Number of continuous hours of water supply per day from the project
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
2	*Indicator | Unit*	**Piped water pressure** (Tier 2) | # seconds/liter
	Definition	Change in the piped water pressure measured by the time it takes to fill a unit of water (seconds/liter)
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
3	*Indicator | Unit*	**New connections to piped water and wastewater services** (Tier 1) | #
	Definition	Number of new residential connections resulting from the project including, if relevant, to underserved groups e.g., low income, previously excluded, rural populations (residential and non-residential) receiving piped water and wastewater services each year.

	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, IDB, IWA, Indonesia (BPS-Statistics), India (Department of Drinking Water and Sanitation – Ministry of Jal Shakti)
4	*Indicator | Unit*	**Population with access to safe drinking water** (Tier 1) | %
	Definition	Increase in proportion of population using safely managed drinking water services (%) due to the project. This can be through for example: increasing water treatment capacities or increasing coverage of piped water network. A safely managed drinking water service is defined as one located on premises, available when needed and free from contamination. Per the UN SDG framework, water must be free from faecal and priority chemical contamination and meet international standards for microbiological and chemical water quality specified in the WHO Guidelines for Drinking Water Quality. For the purposes of global monitoring the priority indicator of microbiological contamination is E. coli (or thermotolerant coliforms), and the priority chemical contaminants are arsenic and fluoride. For detailed guidance on water quality, please refer to the most recent version of the WHO Guidelines for Drinking Water Quality.
	Data source	WHO, Project documents, SDGs
	Institutions applying the indicator	UN, OECD, SDG, Brazil (SNIS), India (Department of Drinking Water and Sanitation – Ministry of Jal Shakti)
5	*Indicator | Unit*	**Population with access to improved sanitation** (Tier 1) | %
	Definition	Increase in proportion of population using safely managed sanitation services due to the project. A safely managed sanitation facility is one where excreta is safely disposed of in situ or treated off-site. A basic handwashing facility is defined by a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water in the household.

	Data source	WHO, Project documents, SDGs, Indonesia (BPS – Statistics)
	Institutions applying the indicator	UN, OECD, SDG, Brazil (SNIS), India (Department of Drinking Water and Sanitation – Ministry of Jal Shakti)
6	*Indicator | Unit*	**User experience** (Tier 2) **|** %
	Definition	Share of users satisfied with what is provided by water / wastewater service companies.
	Data source	Survey
	Institutions applying the indicator	UK, Mexico, South Africa

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator | Unit*	**Non-revenue water (commercial)** (Tier 1) | %
	Definition	Water effectively delivered by the supplier/ distribution company but not paid for by the end users (water paid for by consumer / water delivered to consumer)
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (SNIS)
2	*Indicator | Unit*	**Non-revenue water (technical)** (Tier 1) | %
	Definition	Physical water losses during transmission and distribution. Difference between the amount of water supplied and the amount of water delivered to the end users.

	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (SNIS), Indonesia (BPS – Statistics)
3	*Indicator* | *Unit*	**Total volume of water recycled and reused** (Tier 1) | %, m^3
	Definition	Indicator measures both water treated prior to reuse and water not treated prior to reuse. The rate of water reuse and recycling is a measure of efficiency and demonstrates the success of an organization in reducing total water withdrawals and discharges. Increased reuse and recycling can reduce water consumption, treatment, and disposal costs. Reducing water consumption over time through reuse and recycling also contributes to local, national, or regional goals for managing water supplies. (see GRI guidance)
	Data source	Project operational documents
	Institutions applying the indicator	GRI, Brazil (BNDES), Turkey (Turkstat)

Principle 3: Integrating environmental considerations in infrastructure investments

Project Indicators		
1	*Indicator* | *Unit*	**Wastewater treated** (Tier 1) | m^3
	Definition	Amount of wastewater treated to appropriate standards during the reporting period, measured in cubic meters. May also include the amount of untreated wastewater discharges avoided.
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (SNIS)
2	*Indicator* | *Unit*	**Reused supplied water** (Tier 2) | %

	Definition	Increase in percentage of water entering the system that is reused.
	Data source	Project operational documents
	Institutions applying the indicator	UNESCO, IWA
3	*Indicator* | *Unit*	**Level of water stress** (Tier 2) | %
	Definition	Freshwater withdrawal as a proportion of available freshwater resources, calculated as the ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after taking into account environmental flow requirements. Main sectors, as defined by ISIC standards, include agriculture; forestry and fishing; manufacturing; electricity industry; and services. This indicator is also known as water withdrawal intensity.
	Data source	Project operational documents, sector regulator
	Institutions applying the indicator	SDG, India, Brazil, Mexico

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator* | *Unit*	**Preventive maintenance** (Tier 2) | %
	Definition	Percentage representing annual expenditure on “preventive maintenance” of fixed physical assets linked to the water and wastewater systems as a proportion of their gross value (except land) at the beginning of the year of rating. The average for the year of rating and the two preceding years is considered.
	Data source	Project financial documents

	Institutions applying the indicator	IDB, IWA
2	*Indicator* | *Unit*	**Water pump failures** (Tier 2) | days
	Definition	Average number of days that system pumps were out of order last year (for all system pumps)
	Data source	Project operational documents, sector regulator
	Institutions applying the indicator	European Union (RESCCUE)
3	*Indicator* | *Unit*	**Fortuitous "incidents" affecting the wastewater collection network during dry weather** (Tier 2) | #/1000km
	Definition	Number of "incidents" per thousand kilometers of wastewater collection network in the year of rating. Network length considers all sewers and sewer mains up to discharge into wastewater treatment plants, small scale solutions or the receiving environment. Marine outfalls will not be considered (neither incidents nor length)
	Data source	Project operational documents, sector regulator
	Institutions applying the indicator	IDB, IWA, UK
4	*Indicator* | *Unit*	**Ruptures in transportation and distribution pipes** (Tier 2) | #/km
	Definition	Annual number of reported ruptures in water transportation or distribution pipes per kilometer of such pipes in the "system". The average of the year of rating and the 2 preceding years.
	Data source	Project operational documents, sector regulator
	Institutions applying the indicator	IDB, IWA

5	*Indicator | Unit*	**Design improves resilience to failure of critical links** (Tier 2) | Y/N
	Definition	Yes, if the project contributes to redundant water and wastewater infrastructure and to building resilience to threats, such as extreme weather, cyber-attacks, earthquakes, flooding, tsunamis, wildfires, pandemics and terrorism. Any assessment of network robustness should consider operation during a crisis as well as recovery from failure of critical links. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	OECD, US

Principle 5: Integrating Social Considerations in Infrastructure Investment

Project Indicators		
1	*Indicator | Unit*	**New connections to water, sanitation, and wastewater services for underserved groups** (Tier 2) | # household connections
	Definition	Number of new residential connections for underserved groups resulting from the project. (see HIPSO Guidance)
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (SNIS), Statistics South Africa
2	*Indicator | Unit*	**Water & sanitation education program in schools** (Tier 2) | Y/N or # beneficiaries
	Definition	Yes, if the project has social activities component for the community and other neighboring communities. Alternatively, the number of beneficiaries can be counted.

		Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
3	*Indicator | Unit*	**Multi-generational equity** (Tier 2) | Y/N
	Definition	Yes, if the project considers equity between generations: addressing sustainability and long-term impacts *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	OECD (stakeholder engagement for inclusive water governance)

Principle 6: Strengthening Infrastructure Governance

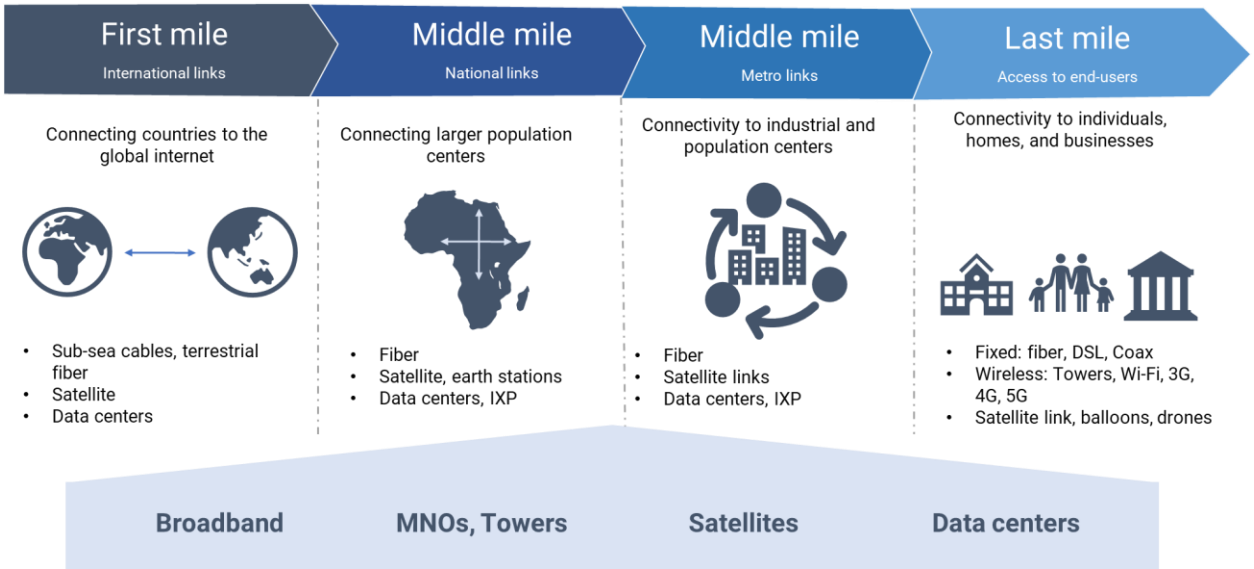
Project Indicators		
1	*Indicator | Unit*	**Updated, timely shared, consistent and comparable water information systems** (Tier 2) | Y/N
	Definition	Yes, if the project/company has water information systems that can guide decisions and policies related to water. Data could encompass, for instance, the status of water resources, water financing, environmental needs, socio-economic features, and institutional mapping. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents including Operational Reports

	Institutions applying the indicator	OECD (stakeholder engagement for inclusive water governance)

4. ICT QII Indicators

The ICT QII Indicators Matrix covers the full sector value chain. It consists of the undersea, underground and above-ground cables, the tower sites, data centers and satellites, as well as the spectrum assets and rights, and the active equipment that interconnects the world through the world wide web and facilitate the delivery of products and services in all sectors (Figure 4.1).

Figure 4.1 ICT sector overview



The indicators are drawn from existing indicator frameworks utilized by international organizations, regional bodies as well as relevant sector specific organizations. Several ICT sector frameworks were consulted to map relevant indicators to the QII Principles including:

- Global ICT Regulatory Outlook by ITU (2020 version)
- Core ICT Indicators and Measuring ICT: the global status of ICT indicators Partnership on Measuring ICT for Development by United Nations, ITU, UNCTAD, UNESCO Institute for Statistics, UNECLAC, UNESCWA and Eurostat
- Toolkit on environmental sustainability for the ICT sector by ITU

REMINDER:

The sector-specific indicators below are meant to supplement the cross-cutting indicators to form a menu of voluntary, non-binding, non-prescriptive and customizable indicators.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator | Unit*	**Proportion of individuals owning mobile phone by gender** (Tier 2) | %
	Definition	Share of the population owning a mobile phone. An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. Mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the Internet, etc.) are included. Individuals who have only active SIM card(s) and not a mobile phone device are excluded. Individuals who have a mobile phone for personal use that is not registered under his/her name are also included. An active SIM card is a SIM card that has been used in the last three months.
	Data source	ITU, UN Stats
	Institutions applying the indicator	ITU, South Africa (Statistics), Argentina (INDEC), Indonesia (Statistics), Saudi Arabia
2	*Indicator | Unit*	**Data center capacity sold** (Tier 2) | TB or % of total
	Definition	Volume or % of data center capacity sold. This indicator can focus on data sold to wholesale clients which supports increased access.
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group

3	*Indicator* | *Unit*	**Median download speed** (Tier 2) | Mbps
	Definition	Median download speed of fixed/mobile broadband in the market. This is applied to MNO, Tower, Fixed broadband, Satellites subsectors.
	Data source	ITU, project operational documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, OECD, UK, India (TRAI)
4	*Indicator* | *Unit*	**Fixed data subscriptions** (Tier 1) | # or %
	Definition	Number of fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s (see ITU guidance).
	Data source	Project documentation ITU provides country level data that can be used for benchmarking purposes if applicable
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (Department of Telecommunications, Ministry of Communications), ITU
5	*Indicator* | *Unit*	**Mobile service subscriptions** (Tier 1) | #
	Definition	Number of clients, i.e., number of personal or commercial connections during the reporting period
	Data source	Project documentation, ITU
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Indonesia (Statistics), Argentina (INDEC)
6	*Indicator* | *Unit*	**Active cloud service clients (firms)** (Tier 2) | #
	Definition	Number of enterprises purchasing at least one of the following cloud computing services from the provider during the reporting

		period: hosting of the enterprise's database, accounting software applications, CRM software, computing power. (See Eurostat)
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	ITU, Eurostat, OECD
7	*Indicator* | *Unit*	**ICT strategy for sustainable development** (Tier 2) | Y/N
	Definition	Yes, if the government/municipality have a harmonized strategy for universal access, taking into account the needs of young people, women, persons with disabilities and specific needs, and indigenous people. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Government ICT agencies
	Institutions applying the indicator	ITU

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator* | *Unit*	**Network coverage** (Tier 1) | %
	Definition	Percentage of population / households that live in a location covered by the project's network during the reporting period.
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, UK, Indonesia (BPS – Statistics), Argentina (INDEC)

2	*Indicator* | *Unit*	**Data center power capacity added or number of racks added** (Tier 2) | MW per currency or # per currency
	Definition	Data center capacity, measured in terms of the number of racks or power (MW), added by the entity during the reporting period per unit (currency) of investment.
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
3	*Indicator* | *Unit*	**Submarine cables capacity installed** (Tier 2) | TB/second per currency
	Definition	Submarine cable data transmission capacity added during the reporting period
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
4	*Indicator* | *Unit*	**New lines installed** (Tier 1) | Km per currency
	Definition	Kilometers of new lines built/in service (long-haul/backhaul/metro, fiber optics or other technologies) during the reporting period
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (TRAI)
5	*Indicator* | *Unit*	**New sites/cells installed** (Tier 2) | # per currency
	Definition	Number of new sites/cells (base transceiver stations (BTS)/towers, antennas, etc.) built during the reporting period

	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (TRAI)
6	*Indicator* | *Unit*	**Tenancy ratio** (Tier 2) | #
	Definition	Average number of tenants (operators) per tower during the reporting period
	Data source	Project document (Financial model and technical appraisal document)
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (TRAI)

Principle 3: Integrating environmental considerations in infrastructure investments

Project Indicators		
1	*Indicator* | *Unit*	**Visual impacts** (Tier 2) | Y/N
	Definition	Yes, if the project has taken measures to prevent visual impact such as: • Minimizing construction of additional towers through colocation of proposed antennae in existing towers or existing structures such as buildings or power transmission towers; • Use of tower and antennae camouflaging or disguising alternatives (e.g., masts or towers designed to look as trees); • Considering public perception about aesthetic issues by consulting with the local community during the siting process of antenna towers. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project documents
	Institutions applying the indicator	IFC, EBRD

2	*Indicator* | *Unit*	**Hazardous materials and waste** (Tier 2) | Y/N or tonnes produced/recycled per year
	Definition	Yes, if the project has taken measures to minimize the impact of hazardous materials and waste such as: • Implementing fuel delivery procedures and spill prevention and control plans applicable to the delivery and storage of fuel for backup electric power systems, preferably providing secondary containment and overfill prevention for fuel storage tanks; • Implementing procedures for the management of lead acid batteries, including temporary storage, transport and final recycling by a licensed facility; • Ensuring that new support equipment does not contain PCBs or ODSs. PCBs from old equipment should be managed as a hazardous waste • Purchasing electronic equipment that meets international phase out requirements for hazardous materials contents *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.* Alternatively, the indicator can reflect: • Total volume of hazardous waste produced or, • Share of hazardous waste reused or recycled.
	Data source	Project operational documents
	Institutions applying the indicator	IFC, IDB, ITU and Global Reporting Initiative (GRI) for ICT, Mexico (INEGI)

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator* | *Unit*	**Network robustness** (Tier 2) | Y/N
	Definition	Yes, if the project strengthens the sector's physical assets or the connection between existent assets. This includes investments in flood barriers, cooling systems and more resistant infrastructure, among others.

		Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.
	Data source	Project documents
	Institutions applying the indicator	ITU

Principle 5: Integrating social considerations in infrastructure investment

Project Indicators		
1	*Indicator* | *Unit*	**New users from underserved groups** (Tier 2) | # or %
	Definition	Number or percentage of new connections for underserved groups resulting from the project.
	Data source	Project documents
	Institutions applying the indicator	IFC, Indonesia (BPS – Statistics)

Principle 6: Strengthening Infrastructure Governance

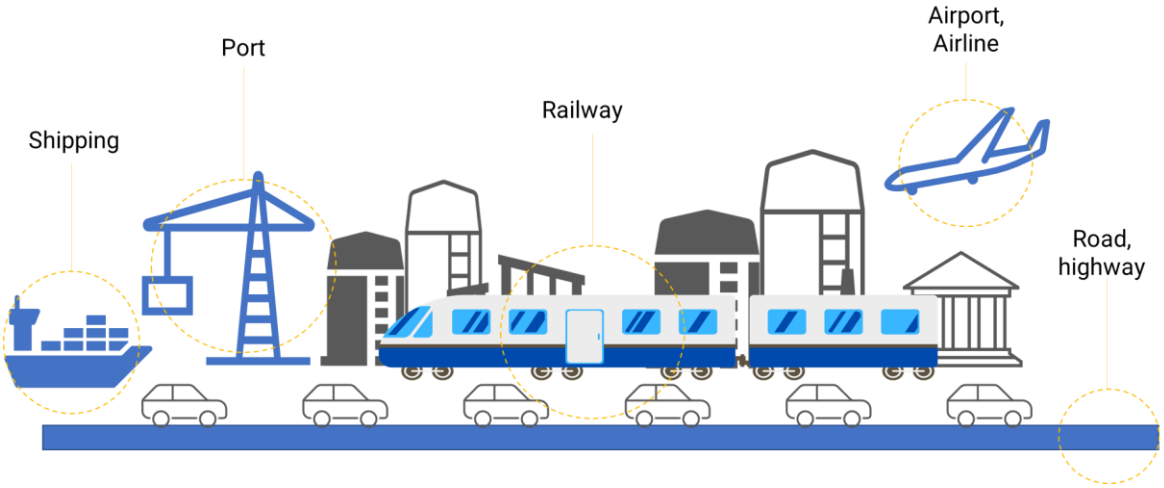
Project Indicators		
1	*Indicator* | *Unit*	**Cyber security and data protection** (Tier 2) | Index
	Definition	The level of preparedness for cybercrime. This can be evaluated by using the following tools: - Global Cybersecurity Index (ITU) - In-country Assessment Tool (WB, UNCTAD)
	Data source	Data from project documentation assessed using ITU, WB methodologies

	Institutions applying the indicator	ITU, World Bank, United Nations member countries

5. Transportation QII Indicators

The Transportation QII Indicators Matrix covers the full sector value chain including air freight and logistics, airlines, marine, road and rail, and transportation infrastructure. These industries can be further broken down into the sub-industries air freight and logistics, airlines, marine, railroads, trucking, airport services, highways and rail tracks, and marine ports and services. The indicators are drawn from existing indicator frameworks utilized by international organization, regional bodies as well as sector specific organizations (Figure 5.1).

Figure 5.1 Transportation sector overview



REMINDER:

The sector-specific indicators below are meant to supplement the cross-cutting indicators to form a menu of voluntary, non-binding, non-prescriptive and customizable indicators.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator | Unit*	**Passenger and freight volumes by mode of transport** (Tier 1) **|** passenger-km, tonne-km, MT, TEUs
	Definition	Passenger and freight volumes are respectively measured in passenger-kilometers and tonne-kilometers, and broken down by mode of transport. For the purposes of monitoring this indicator, passenger-km data are split between aviation, road (broken down between passenger cars, buses and motorcycles) and rail, and tonne-km are split between aviation, road, rail and inland waterways (see UN Statistics division guidance).
	Data source	ICAO, ITF, UNECE, UNCTAD, project data from operational reports, other project legal agreements
	Institutions applying the indicator	SDG, India, Statistics South Africa, Argentina
2	***Indicator | Unit***	**Average terminal charges** (Tier 2) | currency per unit handled
	Definition	Average terminal handling charge (origin/destination/transit terminal handling charges per unit)
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India, Turkey
3	*Indicator | Unit*	**Berth moves** (Tier 2) **|** # Berth moves per hour

	Definition	Number of berth moves per hour
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
4	*Indicator* | *Unit*	**Container dwell time** (Tier 2) **|** hours
	Definition	Duration of cargo dwell time at yard
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, India (NICDC), Indonesia (Transport Ministry)
5	*Indicator* | *Unit*	**Air traffic movement** (Tier 1) **|** #/year
	Definition	Air traffic movement per year
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, ICAO
6	*Indicator* | *Unit*	**Space per passenger** (Tier 1) **|** sqm per passenger
	Definition	Amount of space per passenger in the airport.
	Data source	Project data from operational reports, other project legal agreements

	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, IATA
7	***Indicator | Unit***	Improved airfield infrastructure **(Tier 2) | Y/N**
	Definition	Yes, if project improves IATA Services Level, Instrument Landing System (ILS) category, apron code category, and/or taxiways. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project operational documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
8	*Indicator | Unit*	**Journey times** (Tier 2) **|** hours
	Definition	Decreased journey times for passengers and freight (route-specific indicator)
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Brazil (BNDES), Statistics South Africa
9	*Indicator | Unit*	**Journey frequency** (Tier 1) **|** trips per day
	Definition	Average number of journeys per day on each route. The list of this indicator is improvements in transit infrastructure and equipment that leads to more journeys over a route between point A and B. It shows raised capacities for communities.
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Statistics South Africa, Argentina

10	*Indicator* | *Unit*	**Passenger fare** (Tier 1) **|** currency per km
	Definition	Passenger fare per kilometer
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group
11	*Indicator* | *Unit*	**Average daily traffic (or infrastructure utilization rate)** (Tier 1) **|** # vehicles per year
	Definition	Annual total vehicles using road per year. This indicator captures a straightforward measurement of use of infrastructure investments, expressed as total number of vehicles using a road, and is reported annually. This utilization level may also be expressed for varying time periods (utilization per day, month, etc.). Utilization level of a road, particularly over time, serves as a proxy for the qualitative contribution of new transportation infrastructure to economic activity.
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, UAE Ministry of Energy and Infrastructure, Turkey's Ministry of Transportation and Infrastructure

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator* | *Unit*	**Vehicle operating costs (roads/ports)** (Tier 2) **|** currency per km
	Definition	Freight-related projects that improve roads, rails, and ports frequently generate savings in vehicle operating costs to carriers (e.g., reduced fuel consumption and other operating costs). Project improvements may also lead to efficiencies that reduce other types of operating costs, such as terminal costs (e.g., those associated with the transfer of cargo containers).

	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, US Department of Transportation
2	*Indicator* | *Unit*	**Operation & Maintenance cost recovery from fees / user tariffs** (Tier 2) **|** %
	Definition	Fees and/or user tariffs collected as percent of the cost of operation and maintenance (O&M) of the infrastructure. Reflects the performance of the operator in terms of cost recovery and operational sustainability. Reporting progress on this indicator could lead to instituting policy reforms and improving the financial viability leading to increased investment for the expansion of service provision.
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	UNESCO, World Bank

Principle 3: Integrating environmental considerations in infrastructure investments

Project Indicators		
1	*Indicator* | *Unit*	**Measures to limit noise pollution** (Tier 2) **|** Y/N
	Definition	Yes, if the project takes measures to keep noise pollution levels below limits established by local and/or national regulation. Examples of sources with noise standards applied by G20 members are: EEA, India, Buenos Aires, AIIB.
	Data source	Project data from operational reports
	Institutions applying the indicator	Finish and Swedish Ministry of Transport, OECD, EEA, UK, AIIB
2	*Indicator* | *Unit*	**Efficient use of materials & waste reduction** (Tier 2) **|** Tonnes per year or % of total

	Definition	Amount (or percent) of recycled material used in road construction such as overhead percent of construction materials recycled. (See OECD guidance)
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	MDBs Infrastructure Cooperation Platform (see SII), OECD
3	*Indicator* | *Unit*	**Energy & water efficiency** (Tier 2) **|** unit per year
	Definition	Fuel/water consumption per vehicle mile traveled, person mile traveled, or ton-mile. Projects should monitor and promote the efficient and sustainable use of water and energy (including renewable sources) during the life cycle of the project. The use of water and energy resources during the project must not jeopardize community access to food, land, and water resources. (See OECD guidance)
	Data source	Project data from operational reports, other project legal agreements
	Institutions applying the indicator	MDBs Infrastructure Cooperation Platform (see SII), OECD, India (Indian Urban Mobility Database)
4	*Indicator* | *Unit*	**Contribution to country's transport sector NDC target** (Tier 2) **|** Y/N
	Definition	Yes, if the project directly contributes to country's transport sector Nationally Determined Contributions (NDC) target under the Paris Agreement. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Government documents on NDC target, UNFCCC, project technical documents
	Institutions applying the indicator	WBG, UNFCCC

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator | Unit*	**Project introduces design or technical characteristics that enable operability in all weather conditions** (Tier 1) **|** Y/N
	Definition	The ability of transportation infrastructure to withstand adverse events such as severe weather, seismic activity, and other threats and vulnerabilities that can severely damage or even destroy transportation facilities. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project data from design documents, operational reports, other project legal agreements
	Institutions applying the indicator	OECD, Indonesia (BPS – Statistics), Brazil

Principle 5: Integrating social considerations in infrastructure investment

Project Indicators		
1	*Indicator | Unit*	**Proportion of the rural population who live within 2 km of an all-season road** (Tier 2) **|** %
	Definition	The indicator (commonly known as the Rural Access Index or RAI) measures the share of a country's rural population that lives within 2 km of an all-season road (see UN Statistics division guidance).
	Data source	Project operating report, national statistics office, national road agencies, national census results
	Institutions applying the indicator	SDG, India
2	*Indicator | Unit*	**Design and operation of accessible transportation** (Tier 2) **|** Y/N
	Definition	New vehicle types and operating models are designed with the diverse needs of people that are mobility impaired in mind

		Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.
	Data source	Project documents
	Institutions applying the indicator	Government of U.K.
3	*Indicator | Unit*	**Supports fair and full access to transportation services and economic opportunities by marginalized regions (e.g., rural)** (Tier 2) **|** Y/N
	Definition	Yes, if the project provides mobility to marginalized regions which can be identified by mapping exercises. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project data from design documents, operational reports, other project legal agreements
	Institutions applying the indicator	UK Aid, UNECE

Principle 6: Strengthening infrastructure governance

Project Indicators		
1	*Indicator | Unit*	**Introduction of new type of concession terms** (Tier 2) **|** Y/N
	Definition	Yes, if the project involves the introduction of a new type of concession terms that enable a new distribution of risk between private and public sector. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project data from design documents, other project legal agreements
	Institutions applying the indicator	IFC

2	*Indicator* **|** *Unit*	**Information transparency & access** (Tier 2) **|** Y/N
	Definition	Yes, if there is project makes relevant and reliable information available to all stakeholders. Dissemination data are trustworthy and defendable; data are replicable through a well-documented process; measurement process is methodologically sound; data do not change according to who collects. *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project data from design documents
	Institutions applying the indicator	Africa Transport Policy Program

6. Urban Infrastructure QII Indicators

The Urban Infrastructure QII Indicators Matrix covers urban public transport and solid waste sectors. Urban mobility includes: (i) bus and bus rapid transit (BRT); (ii) metro; (iii) light rail; and (iv) bicycles and other non-motorized vehicles (Figure 6.1). Indicators for solid waste cover the full sector value chain including: (i) collection; (ii) transportation; (iii) treatment; and (iv) disposal. The indicators are drawn from existing indicator frameworks utilized by international organizations, regional bodies as well as sector specific organizations (Figure 6.2).

Figure 6.1 – Urban public transport sector overview

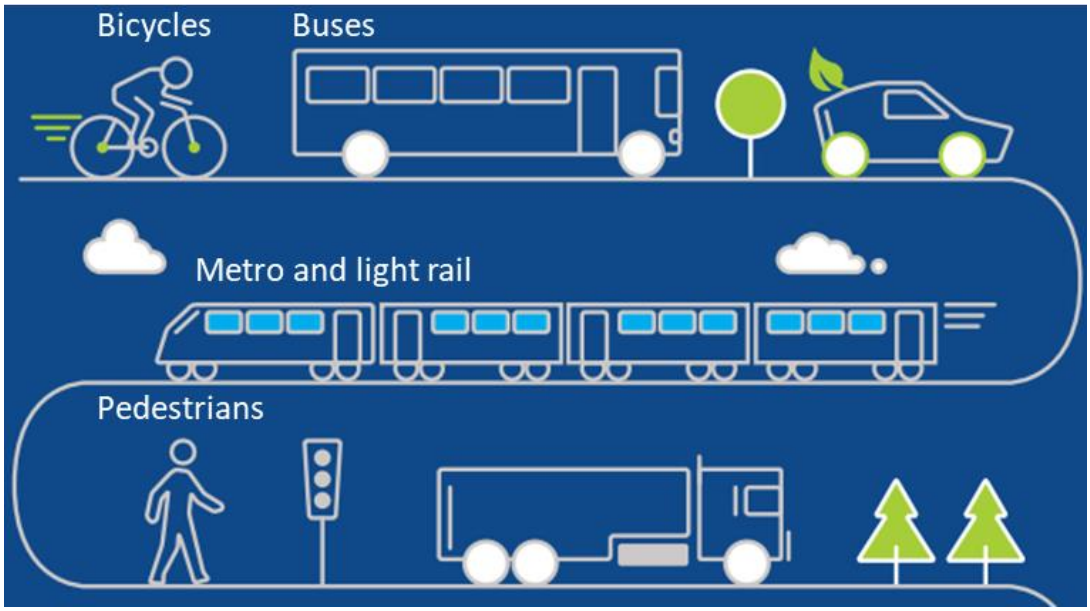


Figure 6.2 - Waste sector overview

REMINDER:

The sector-specific indicators below are meant to supplement the cross-cutting indicators to form a menu of voluntary, non-binding, non-prescriptive and customizable indicators.

Principle 1: Maximizing the positive impact of infrastructure to achieve sustainable growth and development

Project Indicators		
1	*Indicator | Unit*	**Average daily ridership** (Tier 1) | passengers per day
	Definition	Total number of passengers traveling on average each day, measured as the number of passenger boarding. Most public transit users will make at least two trips daily (to and from work), and many will have to use more than one vehicle to make one trip. Thus, a passenger making two boarding per trip would make four boarding daily. The number of daily passengers, therefore, is normally much higher than the number of people who travel every day. In most cities, the number of passengers traveling on working days is significantly higher than at weekends. Thus, the peak hour weekday figure is typically used to determines the required capacity of the system. (see PPIAF)
	Data source	Project operational reports, Urban transport service operator
	Institutions applying the indicator	PPIAF, AIIB, IFC, Manilla Metro, Argentina, Mexico
2	*Indicator | Unit*	**Public transport network daily coverage** (Tier 1) | hour per day
	Definition	Number of hours the service in question is available (24hr is the max)
	Data source	Project operational documents
	Institutions applying the indicator	UN Habitat, EU, multiple NGOs and municipalities

3	*Indicator* | *Unit*	**Journey times** (Tier 1) | hours
	Definition	Passenger and freight: journey times
	Data source	Project operational documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, Mexico, UK
4	*Indicator* | *Unit*	**Access for non-motorized traffic** (Tier 2) | km per 100,000 population
	Definition	Length of transport lines incorporating non-motorized forms of transport to the network, including dedicated bicycle lane and sidewalk coverage. (See SuM4All)
	Data source	Project documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, SuM4All, City of Buenos Aires, Mexico
5	*Indicator* | *Unit*	**Vehicle average speed** (Tier 2) **|** km per hour
	Definition	Average vehicle speed on urban roads.
	Data source	Project operational documents, national or city road authority
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, UK
6	*Indicator* | *Unit*	**Proportion of municipal solid waste (MSW) collected and managed in controlled facilities** (Tier 1) | %
	Definition	Share of MSW collected and managed in controlled facilities of the total MSW generated. MWS managed in controlled facilities includes MSW received by controlled recovery or disposal

		facilities, less residue from controlled recovery facilities and recyclables recovered from controlled disposal facilities. It is recommended to also track the control level of recovery and disposal facilities.
	Data source	Project documents, including technical appraisal reports, data from municipality
	Institutions applying the indicator	IFC, World Bank, OECD, Brazil (SNIS), India (MIS, NSS, MoSPI)
7	*Indicator* | *Unit*	**People benefitting from improved solid waste management facilities** (Tier 1) | # or %
	Definition	Total number of people (or % of population) in urban areas that benefit from improved solid waste management facilities. Can be tracked separately for core city area and areas outside the core city area.
	Data source	Project documents
	Institutions applying the indicator	ADB, IFC, Brazil (SNIS), Indonesia (BPS – Statistics)
8	*Indicator* | *Unit*	**Service frequency** (Tier 1) | # per day or per hour
	Definition	How often a vehicle arrives at a particular stop for a particular route. Average service frequency can be adjusted by the number of individuals within the configured distance from stops. More frequent service in areas of high population would result in a higher metric.
	Data source	Project operational documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, World Bank, European Commission, Manilla Metro, Buenos Aires
9	*Indicator* | *Unit*	**Journey experience** (Tier 2) | various metrics can be applied

	Definition	Quality of journey experience including availability of seats and cleanliness of carriages. Can be measured through ticket sales (i.e., trip passenger numbers to inform density), in-carriage cameras (to record density, seated and standing), and user satisfaction surveys.
	Data source	Project operational documents, user satisfaction surveys
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, UK, South Africa (Statistics)

Principle 2: Raising economic efficiency in view of life-cycle cost

Project Indicators		
1	*Indicator* | *Unit*	**Load factor** (Tier 1) | %
	Definition	The average load on a public transit route throughout the day, calculated by dividing passenger kilometers (the product of the number of passenger and kilometers travelled) by place kilometers (kilometers operated by all the vehicles on a route times the average capacity of the vehicles on the route). Can be used as a measure of profitability.
	Data source	Project operational documents, urban transport service operator
	Institutions applying the indicator	PPIAF
2	*Indicator* | *Unit*	**Vehicle operation cost per km** (Tier 2) | Currency/km
	Definition	The average cost of operating a vehicle, including fuel, oil and maintenance costs, divided by the total distance it is expected to travel over its life.
	Data source	Project financial model or technical appraisal documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group

Principle 3: Integrating environmental considerations in infrastructure investments

Project Indicators		
1	*Indicator* | *Unit*	**Total weight of waste diverted from disposal and its recovery** (Tier 1) | tonnes
	Definition	Total weight of waste (municipal waste or hazardous waste) diverted from disposal, and a breakdown of this total by the following recovery operations: i. Preparation for reuse; ii. Recycling; iii. Other recovery operations (such as composting). The waste management hierarchy prioritizes waste prevention, followed by recovery operations that divert waste from being sent to disposal, such as preparation for reuse, recycling, and other recovery operations. When reporting composition of the waste, the organization can describe the type of waste, such as hazardous waste or nonhazardous waste (See GRI)
	Data source	Project operational documents
	Institutions applying the indicator	GRI, Brazil (SNIS), India (CPCB, Ministry of Environment Forest and Climate Change)
2	*Indicator* | *Unit*	**Energy recovery from waste** (Tier 1) | Gwh
	Definition	The amount of renewable energy generated from waste (For projects focused on waste/wastewater, organizations should note renewable energy generated from waste.)
	Data source	Project operational documents
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, EBRD, Indonesia

3	*Indicator* | *Unit*	**Measures to limit noise pollution** (Tier 2) **|** Y/N
	Definition	Yes, if the project takes measures to keep noise pollution levels below limits established by local and/or national regulation. Examples of sources with noise standards applied by G20 members are: EEA, India, Buenos Aires, AIIB.
	Data source	Project operational documents
	Institutions applying the indicator	Finish and Swedish Ministry of Transport, OECD, AIIB
4	*Indicator* | *Unit*	**Share of electric or renewable energy based public transport fleet** (Tier 1) | %
	Definition	Share of electric or renewable energy based vehicles in the total public transport vehicle fleet. Can be recorded separately for each public transport mode.
	Data source	Project document, urban transport service operators' reports
	Institutions applying the indicator	IFC, International Association of Public Transport, OECD, Mexico (INEGI, Guadalajara City)

Principle 4: Building resilience against natural disasters and other risks

Project Indicators		
1	*Indicator* | *Unit*	**Diligent maintenance and continuity** (Tier 2) | Y/N
	Definition	Yes, if there is robust monitoring, maintenance and renewal of essential urban infrastructure, with effective contingency planning. Indicator part of City Resilience Index *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project operational documents

	Institutions applying the indicator	Part of City Resilience Index that has been piloted in 5 cities: Shimla, India; Concepcion, Chile; Arusha, Tanzania; Hong Kong, China; and Liverpool, UK

Principle 5: Integrating social considerations in infrastructure investment

Project Indicators		
1	*Indicator | Unit*	**Proportion of population that has convenient access to public transport, by sex, age, and persons with disabilities** (Tier 2) | % of population
	Definition	Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities. The access to public transport is considered convenient when a stop is accessible within a walking distance along the street network of 500 m from a reference point such as a home, school, work place, market, etc. Additional criteria for defining public transport that is convenient include: a. Public transport accessible to all special-needs customers, including those who are physically, visually, and/or hearing-impaired, as well as those with temporary disabilities, the elderly, children and other people in vulnerable situations (allowing wheelchair access, percent of stations / network with step free access, etc.) b. Public transport with frequent service during peak travel times c. Stops present a safe and comfortable station environment
	Data source	Project documents including design and technical appraisal reports
	Institutions applying the indicator	SDG, PPIAF, OECD, India (Indian Urban Mobility Database), China, Japan, US, Turkey (Turkstat)
2	*Indicator | Unit*	**Usability of public transport, by gender** (Tier 2) | %
	Definition	Percentage of women who are deterred by fear of crime from getting to and from public transport or while using public transport.

	Data source	Survey, data from public transport service operator
	Institutions applying the indicator	SuM4All, City of London, Statistics South Africa
3	*Indicator* | *Unit*	**Access to waste collection outside core city area** (Tier 1) | # or %
	Definition	Number of households (or % of total) outside the core city area receiving at least weekly waste collection services.
	Data source	Project operational documents
	Institutions applying the indicator	World Bank, Brazil (SNIS)
4	*Indicator* | *Unit*	**Injury / fatality frequency rates (among public transit passengers, pedestrians, cyclists)** (Tier 1) | #
	Definition	Number of road traffic fatalities and injuries among specific road user groups, controlling for the volume of travel by each group. Requires systematically collecting and monitoring the number and length of trips using each mode of transportation.
	Data source	Project operational documents, public transport operator
	Institutions applying the indicator	28 DFIs in the HIPSO Working Group, South Africa Road Traffic Management Corporation, Brazil (BNDES), India, Mexico
5	*Indicator* | *Unit*	**Absolute accessibility of the urban area for underserved groups** (Tier 2)[3] | # or %
	Definition	The total number or percentage of jobs (low-skill and total), schools, and healthcare facilities accessible within a specified maximum travel time (e.g. 30 minutes, 60 minutes) by walking, cycling, and public transport from each geographical location in

[3] The indicator has been included at Brazil's request. The methodology for the indicator is well-established and published by the International Transport Forum.

		the urban area. The indicator can be calculated for the entire population and for underserved groups of interest.
	Data source	Administrative records, surveys, satellite imagery, maps
	Institutions applying the indicator	ITF – OECD, UK, France, Spain, Italy, Germany, Brazil (IPEA)

Principle 6: Strengthening infrastructure governance

Project Indicators		
1	*Indicator | Unit*	**Land use and zoning plans that have been subject to a formal consultation process** (Tier 2) | % or Y/N
	Definition	Percentage of current land use and zoning plans that have been subject to a formal consultation process with utility providers and transport agencies. Land use and zonation should configure appropriately with transport provision, and this metric examines whether this is achieved with effective collaboration. For example, if the city planning department decide to free up some new land for residential usage, they need to ensure that there will be effective transport corridors connecting residents to key urban services. A Y/N indicator can also be used to indicate the presence of a formal consultation process (Yes, if the process is followed). *Entities who wish to gather additional information on the quality of the result reported may use 'commentary' to do so.*
	Data source	Project legal documents, municipality/city authority
	Institutions applying the indicator	City Resilience Solutions