



WORLD BANK GROUP

THE WORLD BANK
IBRD • IDA

IFC


International
Finance Corporation

Annex:

Guidelines in Implementing Asset Recycling Transactions

Printed: June 2023. Available [online](#) @ [PPP/LRC](#)





© 2022 The World Bank Group
1818 H Street NW, Washington, DC 20433
Telephone: 202-473-1000; Internet: www.worldbank.org

Disclaimer

This work is a product of the staff of The World Bank Group. “The World Bank Group” refers to the legally separate organizations of the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

While believed reliable, the World Bank Group does not guarantee the accuracy, reliability or completeness of the content included in this work, or for the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries. The findings, interpretations, and conclusions expressed in this volume do not necessarily reflect the views of the organizations of the World Bank Group, their respective Boards of Executive Directors, and the governments they represent.

The contents of this work are intended for general informational purposes only and are not intended to constitute legal, securities, or investment advice, an opinion regarding the appropriateness of any investment, or a solicitation of any type. Some of the organizations of the World Bank Group or their affiliates may have an investment in, provide other advice or services to, or otherwise have a financial interest in, certain of the companies and parties named herein.

Nothing herein shall constitute or be construed or considered to be a limitation upon or waiver of the privileges and immunities of any of the organizations of The World Bank Group, all of which are specifically reserved.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank Group encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given. All queries on rights and licenses should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; e-mail: pubrights@worldbank.org.

Cover photo by Maria Agnes Evaristo

Acknowledgements

This guidance was developed by Jeff Delmon (Senior Infrastructure Finance Specialist, IPGPP), Alex Weber (PPP Consultant, IPGPP), Victoria Rigby Delmon (Manager, Infrastructure Pre-Investment and Advisory in Asia, IFC), Muhamad Ihsani Prawira (Associate Operations Officer, IFC), with a KPMG team led by David Ng (Principal Advisor, Infrastructure Advisory, Deal Advisory KPMG Services Pte. Ltd.) and Rishabh Jain (Associate Director, Infrastructure Advisory, Deal Advisory KPMG Services Pte.Ltd.).

The team is grateful for overall leadership of Fatouma Ibrahima (Practice Manager, IPGPP) and advice/guidance from: Aijaz Ahmad (Lead PPP Specialist, IPGPP), Jenny Chao (Senior PPP Specialist, IPGPP), Jukka Pekka Strand (Senior Infrastructure Finance Specialist (IPGFG), Melania Lotti (Infrastructure Finance Specialist, IPGFG), Shobana Venkataraman (Chief Investment Officer, IFC), Lamtiurida Hutabarat (Principal Investment Officer, IFC), John Graham (Principal Industry Specialist, IFC).

The online version was designed by Maria Agnes Evaristo, Sofie Beck-Petersen and Xia Luo.

The team received invaluable support from the Global Infrastructure Facility (GIF), the Canadian Government and the Australian Government.

Using the Guidelines:

The [Guidelines in Implementing Asset Recycling Transactions \(Guidelines\)](#) and its Annex have not been prepared with any specific transaction in mind and are meant to serve only as general guidance. It is therefore critical that the Guidelines be reviewed and adapted for specific transactions.

The contents of this Annex are outlined on the Contents page. Click on the topic/title or scroll through the pdf to find the corresponding section. To go back to the outline, click through the [Back to Contents](#) link located at bottom portion of the pages.

The Annex is also available in web format at the [Public-Private Partnership Legal Resource Center \(PPPLRC\)](#). Find the latest version online at https://ppp.worldbank.org/public-private-partnership/Asset_Recycling or by clicking on the links (text in blue) that you will find on the pages of this report.

For [feedback](#) on the content of this section of the website or suggestions for links or materials that could be included, please contact the PPPLRC at ppp@worldbank.org.

The background of the cover page is a blue-tinted photograph of a train crossing. A train is visible in the middle ground, stopped at a crossing. In the foreground, a person wearing a high-visibility vest and a hard hat stands near the crossing. A checkered crossing sign is visible above the train. The overall scene is set against a clear sky with some power lines visible.

Annex:

Guidelines in Implementing Asset Recycling Transactions

(Modules 1 to 10)

Contents

Module 1 - Airport Module	4
Due Diligence for Airports	4
Sample TOR for Airport Transaction Advisors	9
Sample Risk Matrix – Airports	14
Module 2 - Power Generation Module	20
Due Diligence for Power Generation	20
Sample TOR for Power Generation Transaction Advisors	25
Sample Risk Matrix – Power Generation Sector	31
Module 3 - Toll Roads Module	37
Due Diligence for Toll Roads	37
Sample TOR for Toll roads Transaction Advisors	40
Sample Risk Matrix – Toll Roads Sector	45
Module 4 - Ports Module	51
Due Diligence for Ports	51
Sample TOR for Ports Development Transaction Advisors	54
Sample Risk Matrix – Ports Sector	59
Module 5 - Sample Term Sheet	66
Key Provision Term Sheet	66
Module 6 - Bid Parameters	82
Financial Bid Parameter	82
Module 7 - Bundling and Unbundling Criteria	84

Considerations for Multi-Asset Bundling	84
Module 8 - Climate Finance	86
Overview of Climate Finance	86
Sources of Climate Finance	88
Financing Instruments	92
Accessing Climate Finance	97
Case Studies for Climate Finance in Asset Recycling	103
Additional Resources	105
Module 9 - Islamic Finance	107
Introduction	107
Key Considerations in Assets Recycling	108
Overview of Assets Recycling Through Islamic Finance	111
Assets Recycling Process in Islamic Finance	123
Case Studies on Islamic Finance for Asset Recycling	133
Way Forward for Countries to Tap into Asset Recycling Through Islamic Finance	135
Module 10 - Elements for Governance of Project Company (JV)	140
Checklist of JV Key Terms and Conditions	141

Module 1 - Airport Module

Many airports are owned and operated by government bodies, such as ministries or state-owned enterprises. Airports are highly valuable assets, which serve not only passengers but also support the movement of cargo. In addition, the potential of commercial real estate assets in and around the airports attract investment capital from strategic, institutional, and financial investors, thus making airports a likely asset class for asset monetization and recycling.

This module sets out sector-specific asset recycling guidelines for airport sector, including sector-specific due diligence requirements, sample risk allocation matrix and sample terms of reference (TOR) for selection of transaction advisors.

Due Diligence for Airports

The Relevant Authority should undertake a due diligence study of the airport that is considered for asset recycling. This should form part of the asset recycling transaction preparation process. The due diligence process for an airport should include:

- Air traffic forecast and assessment of demand
- Assessment of current airport infrastructure and future capacity development
- Assessment of airport financial performance
- Legal due diligence
- Assessment of Environmental and Social (E&S) risks and climate risks

Air Traffic Forecast and Assessment of Demand

The Relevant Authority should consider the following aspects when conducting traffic forecast and an assessment of demand for the airport:

Historical analysis

- a macro-economic analysis of the air traffic trend, and the role the airport plays in the economic development of the surrounding region;
- historic enplaned passengers handled, air traffic movement (by category of aircraft), and cargo tonnage at the airport;
- existing non-aeronautical activities and potential of the airport;
- impact on passenger and air traffic movement due to the impact of COVID-19, including outlook for the recovery profile;
- impact of existing and foreseeable policy changes on the demand at the airport.

Forecast

- overview of key economic indicators of the catchment area of the airport, in terms of the population base and its location relative to other competing airports;
- project a baseline forecasts for growth in cargo and passenger volume and air transport movements for the period under consideration;

- impact on passenger and air traffic movement due to the impact of COVID-19, including outlook for the recovery profile;
- identify potential scenarios for both downside and upside growth;
- assess potential for business and development of non-aeronautical activities development.

Airport Infrastructure and Capacity Development

The Relevant Authority should undertake an assessment of airport to analyse whether the existing capacity meets current and future demand.

The analysis of the airport's current conditions and future capacity should include:

- airside (airfield infrastructure including runways and taxiways, aprons),
- review airfield service compatibility with reference to aircraft demand types,
- current condition and number of parking stands (per aircraft type); including future gate requirements based on demand forecast
- terminal complex; including details of:
 - Area size of building space, by terminal subsystem
 - Details of facilities to process passengers and baggage involved in commercial air traffic. These should include the major functions of arrival and departing passengers, including government border control facilities and security screening
 - Historical data with respect to current number of enplaned passengers handled
 - Analysis to assess when capacity within terminal would be reached and the requirements for reconfiguration, operational changes, or terminal expansion
- Assessment of landside access including curbside and car parking facilities
- Assessment of supporting infrastructure including utilities such as water, waste management and power

A gap analysis report, including an assessment of the assets' condition, to determine the adequacy to provide required service levels should be prepared. The gap analysis should cover:

- Assessment of the remaining useful life of the airport assets;
- Potential replacement / overhaul / major maintenance required and the timing thereof;
- Overall performance against benchmark (KPIs local and international) with reference to the current capacity at the airport;
- Service specifications required to meet future needs; including adherence to IATA Service Standards and any target Airport Service Quality (ASQ) rating.

Airport Financial Performance

Due diligence should be undertaken of the airport's financial performance.

To this end, the due diligence process should cover a review of aeronautical revenues, non-aeronautical revenues, and operating expenses, presenting historical and projected EBITDA and EBITDA yield (i.e., per enplaned passenger).

The various components to be analysed are as follows:

Aeronautical Revenues

The due diligence process should cover the following aspects:

- Current structure of the relevant charges (aircraft landing, parking, passenger service charges, etc.) and the applicable fee adjustment mechanism/s:
 - Base charges detailing the prevailing charges and historical revenue therefrom;
 - Base charges growth rate detailing prevailing escalation or indexation regime and an assessment as to whether adjustments have been adequate to cover historical inflation.
- Forecast of all aeronautical revenues as well as revenue associated with other aeronautical activities, such as ramp handling, fuelling, in-flight catering, FBOs, MROs, cargo, etc

Non-aeronautical Revenues

- Review historical non-aeronautical revenues. Non-aeronautical revenue streams include passenger related products and services, or commercial activity not directly related to airlines (or other aeronautical operations) and will encompass the following major categories:
 - commercial and retail
 - food and beverage
 - merchandise/ specialist retail/ tax and duty free
 - services (e.g., automatic teller machines, advertising, airport lounges)
 - car parking and commercial ground transportation
 - rental car
 - airport city facilities and land rentals
- Assess non-aeronautical revenue growth and review revenue mix and opportunities for revenue maximization.

Operating Expenses

- Review operations and maintenance expenses comprising staff and non-staff costs
- Review total operating cost per enplaned passenger and benchmark it against the median average of comparable benchmarked airports (i.e., regional airports)

Capital Expenditure

- Assess projected capital investment in new airport infrastructure and replacement and heavy maintenance costs and detail any required expenditure plans (for improvement of service levels, technological upgrade or increasing capacity) to meet expected growth in air traffic demand of the airport over the term of the concession agreement

Legal Due Diligence

The Relevant Authority should consider the following points when conducting its legal due diligence of an airport asset:

- Institutional, legal and regulatory framework for operating airports:
 - Duration of the Project (Term) (as above);
 - Specific laws and regulations relating to operating airports;
 - Key licenses required.
- Determining which services will be retained by Relevant Authority as Relevant Authority's responsibilities/functions:
 - For example: air traffic control, customs, immigration and quarantine, security, emergency services,
 - Setting out how the Operator's services and the areas operated by the Operator will interface with these services retained by Relevant Authority.
- Land handover/site risks, including:
 - Whether to grant the Operator a lease or a right to use over the Airport assets;
 - Whether Relevant Authority can provide a "clean" site with no title issues, no contamination, or other issues.
- Performance monitoring:
 - What level of output specifications the Operator needs to comply with (KPIs);
 - What are the consequences for failure to comply with the KPIs (liquidated damages/ payment deductions).
- The level of Force Majeure / Change in Law protection granted to the Operator
- Managing the risk to operations of competing activities being developed in the vicinity of the Airport.
- Employees, and obligation to take-over existing employees of Relevant Authority.
- Termination rights of the parties and consequences of termination.
- Permitted transfer/assignment and sell-downs.

E&S and Climate Resilience Due Diligence

The Relevant Authority should consider the following issues when conducting its E&S due diligence of an airport asset:

- identify gaps between national applicable law and GIIP/Lenders requirements and way to bridge them with related timeline for implementation;
- key E&S risks may include, but not limited to: land acquisition and/or clearing, resettlement, impact on livelihood, presence of sensitive receptors in the project area of influence with potential limitation in access to residential and commercial activities and increase in noise levels, air emissions, pollution, dust, wastewater and storm water management, waste management, and hazardous material/waste handling, presence and close proximity of the alignment with key biodiversity areas, legacy issue (if any);

- applicable E&S permitting and E&S studies to be developed and to be considered in the risks allocation between the government contracting party and the private sector.

The Climate Resilience Due Diligence should include at least:

- assessment of GHG emissions baseline of the airport asset;
- historical climate data and natural disaster events affecting the airport asset;
- review of climate and natural disasters risks of the airport asset (e.g. flood risks to airports due to increased precipitation and/or sea-level rise; temperature change; increased intensity of storms disrupting operations; changing icing conditions; changing winds; desertification; lift of aircraft reduced due to higher temperatures; increasing wildlife-strike risks due to changes in the local ecosystem);
- assessment of the Disaster Risk Management plan or Emergency Preparedness and Response plan (if any in place); and (v) assessment of integration of climate resilience concepts in maintenances regimes.

Sample TOR for Airport Transaction Advisors

Terms of Reference - Selection of Transaction Advisors for Airport Development

Introduction

Project Background

The [**Relevant Authority's**] Board of Directors is engaging integrated consultant services (either as a single firm or consortium, referred to as 'the consultant') for the transaction advisory services for the [**operations, maintenance, and management**] of the [xxx] airport for the next [xxx] years under the Asset Recycling Scheme ("the Project").

Objective and Purpose of the Project

The Consultant will directly support the [**Relevant Authority**] in providing advisory and transaction services for this Project. The key project objective is to carry out the technical and financial feasibility studies, develop technical specifications and standards, draft legal contractual framework and assist in the administration of partner selection from inception to the financial close.

During the tender support process, the consultant will assist the [**Relevant Authority**] in implementing a competitive tender, consistent with the best international practices and local laws.

Legal Basis

The legal basis for the framework of the preparation and selection of a partner for [xxx] airport under the Asset Recycling Scheme refers to [.] Laws and Regulations, including but not limited to:

1. [xxx]
2. [xxx]

Scope of Work

Introduction

The Consultant scope of work involves multi-disciplinary capabilities and expertise involving airport planning, air demand traffic forecasting, airport business valuation, airport funding and financing and transaction advisory. In addition, the experience of drawing legal and regulatory framework, with emphasis in concession structuring of transport infrastructure is also needed for this project. The study's scope of services forms a part of the following deliverables/tasks:

- a. Feasibility Study (technical and financial) for transaction structuring;
- b. Tender Process for Partner Selection;
- c. Post-transaction award assistance (up to financial close);

Consultant Governance Structure

It is expected that consultant team will be comprised of a Financial, Technical and Legal advisory team. The Financial Consultant will be the lead consultant and work closely with others as an integrated team under [**Relevant Authority's**] guidance, particularly during the feasibility and tender process.

Scope of Works

The below Scope of Services reflects the minimum requirements which [Relevant Authority] envisages will be necessary to conduct the consultancy advisory services.

- Stakeholders Management and Discussion
- Air Traffic Demand Forecast
- Technical Analysis and Capex Estimation
- Legal and Regulatory Assessment
- E&S and Climate Resilience Assessment
- Preparation of financial model, business and financial analysis
- Project structuring and transaction advisory
- Transaction process management

Project Duration and Reporting

It is expected that the consultant will be appointed and commence its services no later than [xxx]. The entire project scope is expected to be completed within [xxx] weeks with the following indicative timeline allotted to the following:

- Final Feasibility Study- [xxx weeks];
- Report on final project structure - [xxx weeks];
- Tender Selection Process for Partner Selection (including negotiations & contract signing) - [xxx weeks];
- Post-award assistance (till financial close) - [xxx weeks];

Expert Requirements

Composition of Consultant's Expert Team

The project is scheduled to be delivered within [xxx] months, including [xxx] weeks for the completion of monitoring and evaluation report after the project financial close. Under the project requirements, the consultant will mobilize the following experts:

- Team Leader/ Project Manager
- Deputy Team Leader / Deputy Project Manager
- Air Traffic Forecasting Expert
- Legal Expert
- Airport Regulatory and Policy Expert
- Environmental and Social and Climate Resilience Expert
- Airport Planner Expert
- Airport Economist
- Transaction Advisory Expert
- Financial Modelling and Airport Business Senior Analyst

The Consultant will determine the number, effort and the nature of experts/support staff they will require to achieve the objectives of the project, in accordance with their proposed approach and methodology. However, the [Relevant Authority] requires a minimum of [xxx] key experts for proposal evaluation purposes. For any changes in the team composition post award shall have to be agreed with the [Relevant Authority].

Project Deliverables

Project Deliverables

- A report covering technical, financial and legal feasibility, including incorporation of feedback from the [**Relevant Authority**] (due in **XXX** weeks):
- An overview of the project implementation schedule aligned with agreed dates during kick-off meeting;
- A draft Air Traffic Demand Forecast Study;
- Technical assessment covering the review of existing airport and related facilities and available land areas and capacity assessment and its ability to accommodate the future passenger demand with highlighting social and environmental impacts and climate change impacts (including climate resilience strategies) and mitigation strategies;
- Financial and business feasibility analysis for the Project;
- Legal and Regulatory Framework Assessment.
- Project structuring
- Project documentation preparation, including pre-qualification, request for proposal, draft concession agreement, and tender selection process
- Post-award assistance (till financial close)

Indicative Payment Schedule

- Professional fees: The project fee shall be proposed as a lump sum contract value, inclusive of typical travel expenses, including accommodation and per-diem of the professional consultants' team, and exclusive of [.] withholding tax and other applicable taxes and inclusive of consultant's country GST and Taxes;
- Payment terms: Terms of payment are proposed are as follows:
- Inception report submission - **XX**% of the lump sum contract;
- Draft Feasibility report submission - **XX**% of the lump sum contract;
- Final Feasibility report submission - **XX**% of the lump sum contract;
- Report on final project structure -**XX**% of the lump sum contract;
- Completion of Tender Selection Process, Negotiation, & Award Signing - **XX**% of the lump sum contract;
- Post-award assistance (till financial close) - **XX**% of the lump sum contract;
- Schedule of consultant hourly rates

Project Evaluation Criteria

Form of Proposal

The Consultant's proposal must be submitted in [bilingual (both in English and [.] / English], duly signed by the authorized signatory of the Lead Consultant.

The following criteria will be used as guidance in comparing and evaluating the different proposals submitted by the Consultants. The proposal should include a technical and financial proposal comprised of the following:

- Organization Experience
- Specific experience of team members and dedication to the project
- Comments on Terms of Reference
- Description of Approach, Methodology, and Scope of Work Plan for Performing the Project:
- Technical Approach and Methodology
- Work Plan
- Organization and Experts
- Curriculum vitae of each expert and supporting staff
- Financial Proposal as proposed lump sum fee (with a breakdown of fixed professional fee, expenses, contingencies); consultants are also requested to submit discounted hourly rates.

Instruction to Consultants

Notice of Receipt and Queries and/or Clarification

Consultants shall acknowledge receipt of this RFP immediately upon receipt. The Consultants shall also advise of their intention to submit a Proposal no later than **XXXX202Y**.

Consultants may request clarifications and/or raise queries in writing, during the period of submission, with respect to any aspect of this RFP. The final date for requesting any query and/or clarification or further information is **XXX**. No queries and/or clarifications will be responded to after this date.

Should the **[Relevant Authority]** provide additional information or responses to a Consultant, it reserves the right to issue a copy of such information to all Consultants and all additional information or responses will form part of this RFP.

All correspondence including notification of receipt, confirmation of intention to submit a Proposal raising queries and/or clarifications shall be delivered directly to **[Procurement Unit of Relevant Authority]**.

Submission of Proposal

Consultant proposals are to be submitted no later than **XXX202Y** (the "Submission Date") and delivered directly to: **[Procurement Unit of Relevant Authority]**

Validity of Proposal

Proposals shall remain valid and binding upon the Consultants for a period of ninety (90) calendar days from the Submission Date ("Period of Validity"). Proposals valid for a shorter period may be rejected by **[Relevant Authority]** as failing to be deemed substantially responsive pursuant to this TOR. Proposals may be accepted at any time before the expiration of the Period of Validity.

[Relevant Authority] may, not later than fourteen (14) calendar days prior to the expiration of the Period of Validity, request the Consultant's consent to an extension of the Period of Validity. Both the request for extension and the response shall be made in writing.

Reservation of Rights

[Relevant Authority] reserves the right to, at its absolute discretion:

- Amend this TOR and/or the TOR process;
- Amend the indicative timetable as outlined in the earlier sections;
- Suspend, cancel or vary the intended selection process;
- Reject any and/or all Proposals;
- Award the engagement to whichever Consultant best satisfies the TOR requirements, such successful Consultant not necessarily being the Consultant with the lowest fees; and

Cost of Preparation of Proposals

All costs incurred by the Consultant in the preparation and lodgement of their Proposal or otherwise in the course of the evaluation of their Proposal shall be borne by the Consultant. **[Relevant Authority]** will not be responsible for and will not pay for, any expense or loss that may be incurred by the Consultant in the preparation, evaluation or negotiation of their Proposal.

Acknowledgement

Submission of a Proposal by the Consultant will constitute and evidence acknowledgement by the Consultant that it has:

- Examined this TOR (including any amendments or addenda); and
- Satisfied itself as to the correctness and sufficiency of its Proposal and that the fees submitted cover the cost of complying with all matters and things necessary for the due and proper performance of the Services and any other elements deemed necessary by the Consultant for a Project of this nature.

Form of Agreement

The successful agreement should form the basis of client-consultant model services agreement as defined in the draft **[to be drafted at the transaction stage]**.

Sample Risk Matrix – Airports

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
Operating Risk	Inadequate performance	The risk of service quality provided by the concessionaire not meeting contracted service standards or availability		x		Ensuring the appointment of a competent operator who could remediate any inadequacies in performance.
	O&M costs overrun	Risk of O&M costs being higher than forecast or budgeted.		x		Appointment of competent operator and management putting into place timely remedial steps.
	Life cycle costs overrun	Risk of lifecycle costs being higher than forecast or budgeted		x		Appointment of competent operator and management putting into place timely remedial steps to manage increased costs; passing of increased costs to end-users within the parameters of fee and charges setting regime
	Utilities costs overrun	Risks of utility costs being higher than estimated or budgeted due to inefficiencies or increased charges		x		Appointment of competent operator; proactive asset management to ensure that assets are maintained in a manner that optimises costs.
	Latent Defects and Existing Liabilities	Risks of latent defects and existing liabilities in the airport assets			x	Conduct adequate technical due diligence; the Private Sector to bear the risk up to a certain threshold beyond which the risk will be borne by the Public sector.
Demand/ Revenue Risks	Demand and traffic risk	Actual traffic at the airport is lower than forecast causing a shortfall in actual aeronautical revenue against budgeted revenue		x		Ensure that traffic survey and forecast are conducted by competent advisers; defer timing of capacity-driven capital expenditure program; re-deployment of staff

						and re-calibration of level and intensity of operational functions.
	Non-aeronautical revenue risk	The concessionaire fails to attract tenants or patronage at retail concessions is lower than budgeted causing a shortfall in actual vs. budget non-aeronautical revenue		x		Comprehensive feasibility study to be conducted, including detailed review of Government objectives and plan; due planning and marketing initiatives.
	Failure to collect airport charges	Due to failure or non-optimality of collection system from passengers and airlines		x		Proven collection system and good operational performance.
	Charges setting risk	Risk that fees and charges indexation does not match inflation or cost increases and escalations, thereby impacting margins or that the Relevant Authority does not approve escalation as per agreed fee and charges escalation mechanism			x	Clear regulations or contract terms that regulate the rate and adjustments of fees.
Financial	Failure to achieve financial close	Inability to achieve financial close due to market uncertainty or the project capital structure is not optimal		x		Good coordination with potential and credible lenders.
	Foreign exchange rate risk	Fluctuation of foreign exchange rate		x		Financing in local currency to the extent possible; taking into accounts currency fluctuation hedging instruments; such as future contract and currency options.
	Inflation and interest rate risk	Increase of inflation rate used for estimating life-cycle costs and interest rate		x		Fee and charges indexation factor; interest rate hedging.
Change in law/ regulation	General change in law	Change in law such as taxation which impacts all businesses and industries		x		General change in law risk should be borne by the concessionaire.
	Discriminatory or project	Change in project-specific law or regulation such as fee and charges setting	x			Mediation, negotiation; political risk insurance;

	specific change in law					
Force Majeure	Natural disasters	The occurrence of natural disasters disrupting operations			x	Insurance, to extent possible. Climate mitigation and adaptation plan. Emergency Preparedness and Response plan (EPR plan) / Disaster Risk Management plan (DRM plan). Incorporate Qualified Climate Risk Events.
	Political force majeure	Events of war, riots, civil disturbance			x	Insurance, to extent possible; termination with compensation if settlement cannot be reached.
	Prolonged force majeure	If above prolongs for 6 to 12 months, may cause economic problems to the affected party (esp. if insurance does not exist)			x	Either party should be able to terminate the contract and trigger an early termination.
E&S Risks and Climate Risks	E&S risks management	<p>Airport development and operation create many E&S impacts and risks, which if not appropriately managed, can result in impact on the social and natural environment.</p> <p>Changes to noise emission pattern and increased complaints.</p> <p>Changes in ecosystems and associated risks.</p> <p>Reduced air quality.</p>		x		<p>The party in charge for construction and Operation and Maintenance (O&M) should have undertaken E&S Studies prepared management plans to mitigate any adverse impacts and risks and consistent with applicable laws.</p> <p>Reducing the use of electricity by using renewable energy and reducing fuel consumption by using environmentally friendly ground support</p>

		<p>Changes in ecosystems and distributions of wildlife and wildlife attractants.</p>		<p>equipment and transportation.</p> <p>Sustainable landing and take-off cycle of aircraft(s) and ground support operations, single engine taxiing.</p> <p>Targeted charges to airlines based on noise measurement.</p> <p>Restrictions on flight operations during night time.</p> <p>Design and implementation of noise control measures (e.g. noise barriers along the boundaries of the airport such as earthen mounds, walls).</p> <p>Solid waste management plan.</p> <p>Integrated vegetation management (IVM).</p> <p>Wildlife hazard management plan (WHMP), including e.g. bio-acoustic technology.</p> <p>Facilitate ecosystem-based adaptation.</p> <p>Use of supplementary cementitious materials (SCM) in concrete runways and use of recycled aggregates in taxiway and apron construction.</p> <p>Achieve the environmental sustainability of passenger terminals (e.g. Recyclable food packaging, beverage containers and utensils. Composting and/or food procurement practices aimed at</p>
--	--	--	--	--

						minimizing waste. LED and other types of energy-efficient lighting to reduce electricity usage.)
	Risk of noncompliance on the E&S aspect of the concession agreement.				x	The parties to review compliance of the E&S aspect of the Concession Agreement, during construction and O&M.
	Climate risks *	<p>Deterioration of runway surface integrity through softening and aircraft rutting.</p> <p>Flood risks to airports due to increased precipitation and/or sea level rise.</p> <p>Lift of aircraft reduced due to higher temperatures.</p> <p>Temperature change affect navigational signals and satellite coverage.</p> <p>Electrical power supply failed during strong winds and storms.</p> <p>Increasing wildlife-strike risks due to changes in the local ecosystem.</p> <p>Use of airport as shelter or as hub for relief operations.</p>			x	<p>Enhanced runway design criteria (e.g. increase height above sea-level of runway to withstand a 1-in-100 year storm surge event).</p> <p>Integrate climate resilience in maintenance regimes and runway surface specifications.</p> <p>Improve emergency repair procedures.</p> <p>Upgrade drainage systems.</p> <p>Installed permeable pavement to drain storm water.</p> <p>Installation and closure of flood/tidal gates and flood-storage basins within the site.</p> <p>Ensure access roadways are navigable for employees and emergency vehicles during flood events.</p> <p>Standards for buildings including climate adaptation.</p> <p>Integrated adaptation planning into airport master plan.</p> <p>Electrical substations upgraded.</p>

						<p>Increase runway length.</p> <p>Develop a Flight Rescheduling Control System (FRCS) to handle the airlines' rescheduling requests, with a view to quickly resuming normal airport operations once extreme weather has abated.</p> <p>Thunderstorm Warning System.</p>
--	--	--	--	--	--	---

** Based on "WB (2016) - Emerging Trends in Mainstreaming Climate Resilience in Large Scale, Multi-sector Infrastructure PPPs" and based on "ACI Resolution 3/2018 on resilience and adaptation to climate change" and based on "Sydney Airport 2021 Response to the Task Force on Climate-related Financial Disclosures"*

Key variables to monitor on climate risks and its impacts, for airport assets:

- Runway Pavement cracking / potholes (runway area affected)
- Wildfires Events in 100km surrounding area (# of events)
- Maximum temperature and deviation vs. average monthly max temperature (in °C)
- Sea level rise (in meters)
- Flooding (airport area affected)
- Intense precipitation events (in millimetres)
- Wind speed (in km/hour)

Module 2 - Power Generation

Module

This module sets out sector-specific asset recycling guidelines for power generation sector, including sector-specific due diligence requirements, sample risk allocation matrix and sample terms of reference (TOR) for selection of transaction advisors.

Due Diligence for Power Generation

The Relevant Authority should undertake a due diligence study of the power generation asset that is considered for asset recycling. This should form part of the asset recycling transaction preparation process. The due diligence process for a power generation asset should include:

- Technical due diligence
- Commercial structuring and feasibility assessment
- Legal due diligence
- E&S and climate resilience due diligence

Technical Due Diligence

The objective of the technical due diligence is to identify potential technical issues with respect to the Asset Recycling Asset. This exercise should form the basis for determining the scope for management, maintenance, and refurbishment of the Asset Recycling Asset that the Concessionaire may need to invest in to ensure required performance specifications can be met.

The Relevant Authority should carry out the following steps in conducting technical due diligence of the Asset Recycling Asset.



- Availability and accessibility of technical data:
 - Review relevant documentation: Review available data and documentation with respect to the Asset Recycling Asset, including but not limited to previous feasibility studies, technical reports (engineering drawings and design), financial statements, existing commercial agreements.
 - Organization of data: Data collected should then be organized according to categories – collation and categorization helps to minimize accessibility issues for bidders when data is made available during the bidding process.
- Asset performance and condition: The assessment should include a study on the existing asset condition, understanding of any major technical or operation issues, and identification of potential plant process and equipment improvement alternatives:

Historical – review period: past (3 to 5) years

- Undertake an assessment of the general condition of the Asset Recycling Asset;
 - Site layout
 - power generation units
 - electrical and control system
 - auxiliary systems
 - emission monitoring system
 - supporting facilities (such as workshops / warehouse, etc.)
 - emission factor (if the Asset Recycling Asset is a thermal generation asset)
- Identify any deficiencies in the asset's functions and operations, including staffing plan, sufficiency of experts and manpower;
- Assess annual operational costs of the asset (fixed cost, variable cost and fuel cost);
- Assess annual maintenance costs of the asset (pro-active, preventive, and corrective), maintenance schedule compliance, major maintenance outages and assets upgrades;
- Assess potential replacement / overhaul / major maintenance required;
- Assess remaining useful life of the assets;
- Assess detailed historical performance data and overall performance (i.e. power generation rate, auxiliary consumption rate, constraints on dispatch or curtailment, [fuel consumption & heat rate – for thermal plants] against benchmark KPIs – local and international as well as downtime incidents assessment) and capacity of the assets (asset reliability and asset availability), including performance in relation to safety systems (near-misses, incidents and fatalities);
- (If applicable,) assessment of historical fuel (supply) data (for thermal power plants) and hydrology data (for hydro power plants);
- Environmental and social and climate change impact assessment, including assessing emission factors and identifying (if applicable) asset refurbishment or upgrades required to comply with international standards (e.g. WBG-EHS guidelines);

Future/ Forecast

- Define service specifications required to meet the future needs;
- Identify any change required in technology (including identify potential risks related to obsolescence of that technology (e.g. due to carbon transition, climate policy)) used and assess costs required for implementation;
- Gap Analysis, including sufficiency of fuel supply with generation plan
- Assess if asset condition is sufficient to provide satisfactory service levels; document any gaps (gap analysis) where the efficiencies of private sector can be leveraged.
- Capital, operational and life-cycle expenditure plans:
 - Assess expenditure plan (for improvement of service levels, technological upgrade or increasing capacity) to meet expected growing demand/offtake and service level of the asset over the contemplated concession/power purchase agreement;
 - Assess any proposed timeline/ implementation plan and phasing of the expenditure plan.

The outcome of the technical due diligence should be provided as a report. As a minimum, it should report on the overall performance and conditions of the Asset Recycling Asset, assess future capital, operational, and life-cycle expenditure plans.

Commercial Structuring and Feasibility Assessment

Financial feasibility assessment

- Review initial forecast / budgeted revenue, capex and opex, tax, capital structure, funding schedule and conduct adjustment to the assumptions based on the latest available information, key project documents or term sheets, and benchmarking
- Review existing debt funding facilities
- Develop a project financial feasibility model based on the updated assumptions parameters and value to identify project IRR, NPV, payback period and other relevant investment feasibility indicators.

Commercial parameters

- Identify the key objectives and key commercial drivers for the implementation of Asset Recycling
- Identify key project risks and risk mitigation action plans in place
- Prepare a preliminary asset recycling commercial structure for the transaction considering key bankability requirements including:
 - Offtake structure
 - Service obligation
 - Key performance indicators
 - Concession period
 - Asset ownership
 - Capital funding structure
 - Payment scheme to GCA
 - Fuel supply arrangement (if applicable)
 - Tariff structure and tariff adjustment provision,
 - Termination regime
 - Other project bankability structuring considerations
- Identify any VGF or government support (if required) to achieve financial feasibility

Legal Due Diligence

The Relevant Authority should consider the following points when conducting its legal due diligence of assets in the power generation sector (assuming IPP model):

- Corporate documents
 - Shareholder agreements among IPP developer shareholders (shareholding structure, governance of IPP company, reserved matters, shareholder's exit and transfer of shares provisions) and share certificates
 - Legality of IPP company including members of board of commissioners and board of directors
 - Adequacy and validity of key business operation permits and licenses, including from external technology or intellectual property providers

- Legality of IPP developer ownership over the Asset Recycling Assets
- Key Project Agreements, i.e.
 - Power Purchase Agreement
 - Power generation requirements (minimum generation, curtailment, dispatch credits, penalty)
 - Offtake mechanism
 - Tariff provision (base tariff and adjustments)
 - Consider applicable arrangements in terms of feedstock supply fuel or other primary energy source (such as steam or hydrology resource) to the Operator (if relevant to the asset) including risk allocation in case of fuel supply issues.
 - Liquidated damages
 - Termination regime
 - Metering arrangement calibration
 - Payment regime
 - Assets transfer requirements
 - Dispute resolution
 - Fuel supply agreement (if applicable)
 - Financing Agreement (restrictions to asset recycling implementation)
 - Land ownership / utilization permit or agreement
 - Workforce arrangement and agreement
 - Insurance agreements (insurance coverage, premium, etc.)
- Adequacy of permits related to Health Safety and Environment (“HSE”) for the operation of the existing assets and compliance of HSE reporting to Relevant Authority
- Historical environmental issues and litigation against IPP company
- Good corporate governance policy and standard operating procedures
- Termination rights of the parties and consequences of termination.
- Any other contingent liabilities

E&S and Climate Resilience Due Diligence

The Relevant Authority should consider the following points when conducting its E&S due diligence of a power generation asset:

- identify gaps between national applicable law and GIIP/Lenders requirements and way to bridge them with related timeline for implementation;
- key E&S risks may include, but not limited to: land acquisition and/or clearing, resettlement, impact on livelihood, presence of sensitive receptors in the project area of influence with potential limitation in access to residential and commercial activities and increase in noise levels, air emissions, pollution, dust, wastewater and storm water management, waste management, and hazardous material/waste handling, presence and close proximity of the alignment with key biodiversity areas, legacy issue (if any);

- applicable E&S permitting and E&S studies to be developed and to be considered in the risks allocation between the government contracting party and the private sector.

The Climate Resilience Due Diligence should include at least

- assessment of GHG emissions baseline of the power generation asset;
- historical climate data and natural disaster events affecting the power generation asset;
- review of climate and natural disasters risks of the power generation asset (e.g. insufficient cooling water; temperature of cooling water before and after use; floods risks, particularly in coastal infrastructure; reduced efficiency of solar energy; drought and/or reduced average precipitations affecting output from hydropower generation);
- assessment of the Disaster Risk Management plan or Emergency Preparedness and Response plan (if any in place); and
- assessment of integration of climate resilience concepts in maintenances regimes.

Sample TOR for Power Generation Transaction Advisors

Terms of Reference (TOR) - Selection of Transaction Advisors for Power Generation Development

Introduction

Project Background

The [**Relevant Authority's**] Board of Directors is engaging the integrated consultant services (either as a single firm or consortium, referred to as 'the consultant') for the transaction advisory services for [operations, maintenance, and management] of the [xxx] power plant for the next [] years under the Asset Recycling Scheme ("the Project").

Objective and Purpose of the Project

The Consultant will directly support the [**Relevant Authority**] with the provision of advisory and transaction services for this Project. The key project objective is to carry out the technical and financial feasibility studies, develop technical specifications and standards, draft legal contractual framework and assist in the administration of asset recycling partner selection from inception to the financial close.

During the tender support process, the consultant will assist the [**Relevant Authority**] in implementing a competitive tender, consistent with the best international practices and local laws.

Legal Basis

The legal basis for the framework of the preparation and selection of a partner for [XXX] power plant (XXX MW) under the Asset Recycling Scheme refers to [.] Laws and Regulations including but not limited to:

1. [XXX]
2. [XXX]

Scope of Works

Introduction

The Consultant scope of work involves multi-disciplinary capabilities and expertise involving demand forecasting, power plant development, and power plant financing, economics and investment, commercial, business case planning, stakeholders and risk management. In addition, the experience of drawing legal and regulatory framework is needed for this project. The study's scope of services forms a part of the following deliverables/tasks:

- a. Feasibility Study (technical and financial) for transaction structuring;
- b. Tender Process for Partner Selection;
- c. Post-transaction award assistance (up to financial close);

Consultant Governance Structure

It is expected that consultant team will be comprised of a Financial, Technical, Legal and/or Project Management advisory team. The Financial Consultant will be the lead consultant and work closely with others as an integrated team under [**Relevant Authority's**] guidance, particularly during the feasibility and tender process.

The role of the Lead Consultant (as a financial) is to work with technical and legal consultant team to develop the feasibility study and support the tender process for project, including post-evaluation report.

Scope of Works

The below Scope of Services reflects the minimum requirements which [Relevant Authority] envisages will be necessary to conduct the consultancy advisory services.

- Stakeholders Management Discussion
- Technical Analysis and Capex Estimation
- Legal and Risk Assessment
- E&S and Climate Resilience Assessment
- Preparation of financial model, business and financial analysis
- Project structuring and transaction advisory
- Transaction process management

Project Duration and Reporting

It is expected that the consultant will be appointed and commence its services no later than [xxx]. The entire project scope is expected to be completed within [xxx] weeks with the following indicative timeline allotted to the following:

- Final Feasibility Study- [XXX weeks];
- Report on final project structure - [XXX weeks];
- RFQ and RFP documents including supporting tender documents
- Tender Selection Process for Partner Selection (including negotiations & contract signing) - [XXX weeks];
- Post-award assistance (till financial close) - [XXX weeks];

Expert Requirements

Composition of Consultant's Expert Team

The project is scheduled to be delivered within [XXX] months, including [XXX] weeks for the completion of monitoring and evaluation report after the project financial close. Under the project requirements, the consultant will mobilize the following experts:

- Team Leader/ Project Manager
- Deputy Team Leader / Deputy Project Manager
- Technical Team
 - Senior Electrical Engineer
 - Civil Engineer
 - Mechanical Engineer
 - Control and Instrumentation Engineer
 - Thermal Modelling Expert (assuming thermal power plant)

- Legal and Compliance
 - Power Regulatory and Policy Expert
 - Health Safety and Environmental Expert
 - Social Expert
 - Environmental/Climate Resilience Expert
 - Insurance Due Diligence Expert
- Financial and Commercial
 - Power Commercial / Business Expert
 - Power Finance and Investment Expert
 - Financial Model Specialist
 - Tax Expert (if tax structuring is required)
 - Procurement Expert / Transaction Specialist

The Consultant will determine the number, effort, and the nature of experts/support staff they will require to achieve the objectives of the project, in accordance with their proposed approach and methodology. However, the **[Relevant Authority]** requires a minimum of **[XXX]** key experts for proposal evaluation purposes. Any changes in the team composition post award have to be agreed with the **[Relevant Authority]**.

Project Deliverables

The deliverables of this project addressed to **[Relevant Authority]** are as follows:

1. A report covering technical, social, environmental, climate resilience, financial and legal assessment, including incorporation of feedback from the [Relevant Authority] (final technical and financial feasibility study with tender selection and draft legal contract documents: due in [12-16] weeks):
 - a) An overview of the project implementation schedule aligned with agreed dates during kick-off meeting'
 - b) Assets technicalities study after asset recycling implementation (gross and net capacity, availability factor and degradation, load profile by month, routine and major overhaul maintenance schedule, all in O&M expenses and its breakdown, replacement capex if any)
 - c) Financial and commercial analysis covering a financial and commercial viability analysis for the Project with reference to key parameters such as project cost, funding, operating expenses and revenues.
 - d) Legal and Regulatory Framework Assessment and legal structure recommendation for asset recycling transaction
2. Existing Assets Due Diligence Report (Financial, Tax, Technical, Legal, Insurance, HSE, Climate Resilience)
3. Tender selection process: (Approximately [24-32] weeks)
 - a) Market sounding Report
 - b) Public Consultation Report (if required)
 - c) Request for Qualification and its supporting documents
 - d) Request for Proposal and its supporting documents (draft Asset Recycling Agreement / term sheet, Feasibility Study, Due Diligence Report)

- e) Statement of Qualification ("SOQ") and Proposal evaluation framework (evaluation parameter, mechanism, threshold)
 - f) SOQ and Proposal clarifications to applicants
 - g) SOQ and Proposal Evaluation Report
 - h) Award to Preferred Bidder
4. Post-transaction Award [12-24 weeks]
- a) Asset Recycling Agreement closing progress report
 - b) Signed Asset Recycling Agreement (and other supporting documents as required, i.e. PPA)

Indicative Payment Schedule

- Professional fees: Fees shall be proposed as a lump sum contract value, inclusive of air travel, visa, accommodation and per-diem of the professional consultants' team, and exclusive of withholding tax and other applicable taxes and inclusive of consultant's country GST and Taxes;
- Payment terms: Terms of payment are proposed as follows:
 - Inception report submission - **XX%** of the lump sum contract;
 - Draft Feasibility report submission - **XX%** of the lump sum contract;
 - Final Feasibility report submission - **XX%** of the lump sum contract;
 - Report on final project structure - **XX%** of the lump sum contract;
 - Completion of Tender Selection Process, Negotiation, & Award Signing - **XX%** of the lump sum contract;
 - Post-award assistance (till financial close) - **XX%** of the lump sum contract;
- Schedule of consultant hourly rates

Project Evaluation Criteria

Form of Proposal

The Consultant's proposal must be submitted in Bilingual (both in English and [.]), duly signed by the authorized signatory of the Lead Consultant and must include supporting unincorporated JV or sub consultancy agreements.

The following criteria will be used as guidance in comparing and evaluating the different proposals submitted by the Consultants. The proposal should include a technical and financial proposal comprised of the following:

- Organization Experience
- Experience of team members
- Consultant's Project Experience
- Comments on Terms of Reference
- Description of Approach, Methodology, and Scope of Work Plan for Performing the Project:
 - Technical Approach and Methodology
 - Work Plan
 - Organization and Experts

- Curriculum vitae of each expert and supporting staff
- Financial Proposal as proposed lump sum fee (with a breakdown of fixed professional fee, expenses, contingencies); consultants are also requested to submit discounted hourly rates.

Instruction to Consultants

Notice of Receipt and Queries and/or Clarification

Consultants shall acknowledge receipt of this RFP immediately upon receipt. Consultants shall also advise of their intention to submit a Proposal no later than XXXX202Y.

Consultants may request clarifications and/or raise queries in writing, during the period of submission, with respect to any aspect of this RFP. The final date for requesting any query and/or clarification or further information is XXXX. No queries and/or clarifications will be responded to after this date.

Should the **[Relevant Authority]** provide additional information or responses to a Consultant, it reserves the right to issue a copy of such information to all Consultants and all additional information or responses will form part of this RFP.

All correspondence including notification of receipt, confirmation of intention to submit a Proposal raising queries and/or clarifications shall be delivered directly to {Procurement Unit of **Relevant Authority**}

Submission of Proposal

Consultant proposals are to be submitted no later than XXX 202Y (the "Submission Date") and delivered directly to: [Procurement Unit of **Relevant Authority**]

Validity of Proposal

Proposals shall remain valid and binding upon the Consultants for a period of ninety (90) calendar days from the Submission Date ("Period of Validity"). Proposals valid for a shorter period may be rejected by **[Relevant Authority]** as failing to be deemed substantially responsive pursuant to this TOR. Proposals may be accepted at any time before the expiration of the Period of Validity.

[Relevant Authority] may, not later than fourteen (14) calendar days prior to the expiration of the Period of Validity, request the Consultant's consent to an extension of the Period of Validity. Both the request for extension and the response shall be made in writing.

Reservation of Rights

[Relevant Authority] reserves the right to, at its absolute discretion:

- Amend this TOR and/or the TOR process;
- Amend the indicative timetable as outlined in the earlier sections;
- Suspend, cancel or vary the intended selection process;
- Reject any and/or all Proposals;
- Award the engagement to whichever Consultant best satisfies the TOR requirements, such successful Consultant not necessarily being the Consultant with the lowest fees; and

Cost of Preparation of Proposals

All costs incurred by the Consultant in the preparation and lodgement of their Proposal or otherwise in the course of the evaluation of their Proposal shall be borne by the Consultant. **[Relevant Authority]** will not be responsible for and will not pay for, any expense or loss that may be incurred by the Consultant in the preparation, evaluation or negotiation of their Proposal.

Acknowledgement

Submission of a Proposal by the Consultant will constitute and evidence acknowledgement by the Consultant that it has:

- Examined this TOR (including any amendments or addenda); and
- Satisfied itself as to the correctness and sufficiency of its Proposal and that the fees submitted cover the cost of complying with all matters and things necessary for the due and proper performance of the Services and any other elements deemed necessary by the Consultant for a Project of this nature.

Confidentiality – Consultant’s Obligations

Form of Agreement

The successful agreement should form the basis of client-consultant model services agreement as defined in the draft **[to be drafted at the transaction stage]**.

Sample Risk Matrix – Power Generation Sector

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
OPERATING RISKS	O&M costs overrun	Risk of O&M costs being higher than forecast or budgeted.		x		Evaluation of O&M cost assumption and the adequacy of tariff component for the recovery of O&M cost is critical in ensuring the selection of private sector with credible and robust business plan; specifying the requirement of a long-term O&M (e.g. LTSA) contract as part of IPP bid submission can also be a mitigation strategy.
	Fuel price risk	Risk of fuel price fluctuation.	x			Typically borne by the off taker. Tariff component for fuel cost recovery will typically allow for fuel price pass-through/indexation.
	Plant efficiency	Risk of plant operation not in accordance to design standard (e.g. thermal efficiency below contracted efficiency due to operational issue).			x	Borne by the private sector operator as efficiency is under the control and responsibility of asset owner. Therefore, only fuel price is a typically pass-through component.
DEMAND / REVENUE RISKS	Demand risk	Output of the plant subject to dispatch order by utility.	x			For non-renewable plant, typically tariff payment will be structured into availability payment and output payment, or a Take or Pay will be provided by off-taker. IPP will be neutral on demand risk as it will typically structure its debt servicing and capital repayment requirement based on availability payment (or Take or Pay), which is a factor under their control. Output payment will be structured on cost recovery/cost pass through basis.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						For renewable plant, where resource availability is a constraint, typically will be structure on a “must take” basis by the off-taker, with further compensation from off-taker in the event of risk event caused by the off-taker (e.g. curtailment beyond cap).
FINANCIAL	Failure to achieve financial close	Inability to achieve financial close due to market uncertainty or the project capital structure is not optimal.		x		For IPP tender, evaluation of the comprehensiveness and robustness of IPP participant debt financing plan as part of bid submission is a way to mitigate financial close risk. As part of qualification process, typically shortlisted bidder will go through a screening process of financial strength and debt raising experience in ensuring credible IPP participants are selected for bid submission.
	Foreign exchange rate risk	Fluctuation of foreign exchange rate.	x			Tariff components will allow for the allocation between foreign and local components, where foreign component is indexed to an agreed FX rate. Hence, private sector will be shielded from FX fluctuation risk if the allocation is done in accordance to the foreign-local component split of the cost component.
	Inflation risk	Increase of inflation rate used for estimating operating cost.	x			Same as above, tariff components will typically allow for indexation of foreign and local cost component to the relevant CPI indices. This is applicable only to tariff components meant for the recovery of cost components that are subject to inflation indexation (e.g. O&M cost, but not capital recovery and not fuel cost).

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
	Interest rate risk	Increase in interest rate (base interest rate).		x		Typically borne by private sector (IPP), who is responsible for arrange for debt financing for the capital investment. Mitigation strategy shall be to enter into hedge/swap to mitigate base interest rate fluctuation risk, or to even consider fixed interest rate.
POLITICAL FORCE MAJEURE (CHANGE IN LAW AND GOVERNMENT (IN-)ACTIONS)	General change in law	Change in law such as taxation which impacts all businesses and industries.	x	(x)		Typically to be borne by the government/off-taker, usually with a threshold to be defined (material adverse change). For brownfield assets (in the context of asset recycling transactions), the allocation of change in law risk can be split where the Relevant Authority/government-side party assumes discriminatory and certain specific changes in law.
FORCE MAJEURE	Natural disasters	The occurrence of natural disasters disrupting operations.			x	Insurance, to extent possible. In extended FM, parties will have the right to terminate. Climate adaptation plan. Emergency Preparedness and Response plan (EPR plan) / Disaster Risk Management plan (DRM plan). Incorporate Qualified Climate Risk Events.
	Other Force Majeure	Other force majeure events such as war, earthquakes, etc.			x	Insurance, to extent possible; termination with compensation if settlement cannot be reached.
	Prolonged force majeure	If above prolongs for 6 to 12 months, may cause economic problems to the affected party			x	Either party should be able to terminate the contract and trigger an early termination.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
		(esp. if insurance does not exist).				
E&S Risks and Climate Risk	E&S risks management	<p>Power gen plant development and operation create many E&S impacts and risks, which if not appropriately managed, can result in impact on the social and natural environment.</p> <p>Impact of discharged water temperature on fish populations.</p> <p>High chlorine content in the air.</p> <p>Marine biofouling and/or microplastics affecting cooling systems.</p> <p>Noise pollution affecting plant employees and nearby communities.</p>		x		<p>The party in charge for construction and Operation and Maintenance (O&M) should have undertaken E&S Studies prepared management plans to mitigate any adverse impacts and risks and consistent with applicable laws.</p> <p>Convert to Closed-cycle cooling systems or implementing Cooling ponds or reservoirs.</p> <p>Install noise control equipment (acoustic enclosure, baffles, exhaust silencers, absorptive panels, duct silencers, etc).</p> <p>Cogeneration or Combined Heat & Power (CHP) facilities.</p> <p>Install flue gas desulfurization equipment.</p> <p>Install electric bag filters.</p>
		Risk of noncompliance on the E&S aspect of the concession agreement.			x	The parties to review compliance of the E&S aspect of the Concession Agreement, during construction and O&M.
	Climate risks *	<p>Insufficient cooling water.</p> <p>Temperature of cooling water before and after use.</p> <p>Increasing air temperature leading to reduced generation and</p>		x		<p>Integrate climate resilience in maintenance regimes and materials and equipment design specifications.</p> <p>Improve emergency repair procedures.</p> <p>Temporary shutdowns during heat waves.</p> <p>Increase efficiency of cooling systems. Redesign cooling facilities (water recovery</p>

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
		<p>efficiency of turbines.</p> <p>Floods risks, particularly in coastal infrastructure.</p> <p>Increasing intensity of storm events, sea-level rise, storms surges.</p> <p>Increased precipitation could cause reduced coal quality (and combustion efficiency) due to higher moisture content of coal.</p> <p>Reduced efficiency of solar energy.</p> <p>Drought and/or reduced average precipitations affecting output from hydropower generation.</p> <p>Variations in average wind patterns.</p>				<p>from condenser and heat exchangers, reduction of evaporative losses, secondary or wastewater usage, construction of dry cooling towers).</p> <p>Install a demineralized water treatment system so that it can use saline water for cooling purposes.</p> <p>Fortify coastal, offshore and flood-prone infrastructure against flooding. Develop flood control (embankments, dams, dikes, reservoirs, polders, ponds, relocated flood defense barriers, land levelling and higher channel capacity).</p> <p>Specify cabling and components that can deal with high moisture content and flooding (solar power).</p> <p>Select appropriate tilt panel angle to clean dust. Select module surface conducive to self-cleaning (solar power).</p> <p>Consider effects of extreme temperatures on turbine and blade selection and operation (wind power).</p> <p>Improve airflow beneath mounting structure to reduce heat gain and increase outputs (solar power).</p> <p>Install lightning conductors.</p>

* Based on "WB (2016) - "Emerging Trends in Mainstreaming Climate Resilience in Large Scale, Multi-sector Infrastructure PPPs" and based on "ADB (2013) - Guidelines for Climate Proofing Investment in the Energy Sector"

Key variables to monitor on climate risks and its impacts, for power generation assets:

- Temperature of cooling water before and after use (in °C)
- Cooling water availability (in m³)
- Maximum temperature and deviation vs. average monthly max temperature (in °C)
- Flooding (power gen area affected)
- Sea level rise (in meters)
- Intense precipitation events (in millimetres)
- Drought events (area affected)
- Wind speed (in km/hour)
- Storm surge (# events and intensity)
- Turbine efficiency (in %)
- Solar panel efficiency (in %)
- Moisture content in coal (in %)
- Airport unavailability (hours per year)
- GHG emissions (tons CO₂ e.g., per year)

Module 3 - Toll Roads Module

This module sets out sector-specific asset recycling guidelines for toll roads sector, including sector-specific due diligence requirements, sample risk allocation matrix and sample terms of reference (TOR) for selection of transaction advisors.

Due Diligence for Toll Roads

In conducting due diligence, the objectives are as follows:

- Review the condition of the toll road;
- Review operations of the asset; including the tolling technology used, toll processing systems, safety and patrol services, repairs and maintenance, landscaping and operations of rest stops;
- Review service standards provided under the current operations of the asset including standards pertaining to safety and maintenance, incident response, repairs, signages and street lighting;
- Review the financial status of the asset and the financial feasibility of the asset under private sector party operations;
- Determine measures that can be implemented to enhance the asset's value either through an extension or expansion of the toll road, the introduction of any operational efficiency or tariff adjustments; and
- Identification of key Environmental and Social (E&S) and Climate risks to be taken into account in the asset's selection and the risk allocation process.

In the context of a toll road asset recycling transaction, the following additional due diligence should be undertaken

- Traffic and revenue forecast of the asset;
- Assessment of other ancillary revenues that could potentially be derived from the system;
- Assessment of existing built infrastructure and future capacity development for the asset;
- Assessment of E&S risks and Climate risks;
- Assessment of all operation and maintenance performance; and
- Assessment of financial performance of the Asset including consideration of the asset as interesting to lenders as well as equity.

Traffic Forecast and Demand Assessment

The relevant authority should consider the following aspects when conducting the traffic forecast for the Asset and an assessment of demand of the asset:

- Perform a traffic study, including traffic counts and origin-destination survey using the most appropriate and cost-efficient method (manual counts, automatic traffic counting stations, drones, satellite imagery, etc.)

- Perform a traffic demand assessment to provide a robust forecast over the stipulated concession period.
- Prepare traffic forecasts based on the traffic study and (Origin-Destination) O-D data. Realistic annual traffic growth rates for the base year and over the stipulated concession period; considering factors such as the impact of the national economic growth and future regional development/s, including any relevant ongoing, committed or otherwise planned/expected road projects

Road Infrastructure and Capacity Development

Undertake a preliminary assessment of the existing road alignment, propose any re-alignment (where possible and permitted) to improve the geometric characteristics and road safety. Several options should be proposed and considered, including various technical solutions, and amending the number of total travel lanes and their widths.

A gap analysis report, including an assessment of the asset's condition, to determine the adequacy to provide required service levels should be prepared. The gap analysis should cover:

- Assessment of the remaining useful life of the asset;
- Potential replacement / overhaul / major maintenance required and the timing thereof;
- Major lifecycle costs over the term of the operations of the asset by the private sector;
- Overall performance against benchmark with reference to the current capacity;
- Service specifications required to meet future needs; and
- Any shortfall with respect to the maintenance obligations and the remediation measures and any remediation costs required.

Financial Performance

Due diligence should be undertaken of the toll road's financial performance. To this end, the due diligence process should review toll revenues, and operating expenses, presenting historical and projected Earnings Before Interest, Tax and Depreciation/Amortization (EBITDA). Using reasonable leverage levels, forecast lenders metrics such as Debt Service Coverage Ratio (DSCR) and Loan Life Coverage Ratio (LLCR) as well as key equity metrics such as project rate of return.

Toll Revenues

- Current structure of the relevant toll charges and the applicable fee adjustment mechanism/s:
 - Base charges detailing the prevailing charges and historical revenue there from;
 - Base charges growth rate detailing prevailing escalation or indexation regime and an assessment as to whether adjustments have been adequate to cover historical inflation.
- Forecast of toll revenues based on traffic forecast and prevailing toll charging mechanisms

Operating Expenses

- Review operations and maintenance expenses comprising staff and non-staff costs
- Review total operating cost and benchmark it against the median average of comparable (i.e., regional, or local road assets)

Capital Expenditure

- Assess projected capital investment in extensions or expansions and asset renewal and detail any required expenditure plans (for improvement of service levels, technological upgrade or increasing capacity) to meet expected growth in traffic demand over the term of the concession agreement.
- Assess estimates for the cost of proposed road upgrade (as applicable) including all required services, such as pre-design investigations, design, road safety audit, supervision, etc

E&S and Climate Resilience Due Diligence

This is a high-level summary to be expanded and tailored to the project risks by the E&S and Climate Resilience Advisory engaged to undertake the E&S and Climate Resilience Due Diligence (DD).

During the E&S Due Diligence to identify

- gaps between national applicable law and GIIP/Lenders requirements and way to bridge them with related timeline for implementation;
- key E&S risks may include, but not limited to: land acquisition and/or clearing, resettlement, impact on livelihood, removal of trees and vegetation, disturbance during construction activities with utilities interruption, traffic diversion and safety, presence of sensitive receptors in the project area of influence with potential limitation in access to residential and commercial activities and increase in noise levels, air emissions, pollution, dust, wastewater and storm water management, waste management, and hazardous material/waste handling, presence and close proximity of the alignment with key biodiversity areas, legacy issue (if any);
- applicable E&S permitting and E&S studies to be developed and to be considered in the risks allocation between the government contracting party and the private sector.

The Climate Resilience Due Diligence should include at least an

- assessment of GHG emissions baseline of the toll road asset;
- historical climate data and natural disaster events affecting the toll road asset;
- review of climate and natural disasters risks of the toll road asset (e.g., flood risks to roads, increased scour of bridges, increased instability of embankments, increased damage to road surfaces; increased drought and wildfires);
- assessment of the Disaster Risk Management plan or Emergency Preparedness and Response plan (if any in place); and
- assessment of integration of climate resilience concepts in maintenances regimes and road surface specifications.

Sample TOR for Toll roads Transaction Advisors

Terms of Reference - Selection of Transaction Advisors for Toll Roads

Introduction

Project Background

The [**Relevant Authority's**] Board of Directors is engaging integrated consultant services (either as a single firm or consortium, referred to as 'the consultant') for the transaction advisory services for the [**operations, maintenance, and management**] of the [xxx] toll road for the next [xxx] years under an Asset Recycling Scheme ("the Project").

Objective and Purpose of the Project

The Consultant will directly support the [**Relevant Authority**] in providing advisory and transaction services for this Project. The key project objective is to carry out the technical and financial feasibility studies, develop technical specifications and standards, draft legal contractual framework and assist in the administration of partner selection from inception to the financial close.

During the tender support process, the consultant will assist the [**Relevant Authority**] in implementing a competitive tender, consistent with the best international practices and local laws.

Legal Basis

The legal basis for the framework of the preparation and selection of a partner for [xxx] toll roads under the Asset Recycling Scheme refers to [.] Laws and Regulations, including but not limited to:

1. [xxx]
2. [xxx]

Scope of Work

Introduction

The Consultant scope of work involves multi-disciplinary capabilities and expertise involving planning, toll roads traffic forecasting, toll roads business valuation, toll roads funding and financing and transaction advisory. In addition, the experience of drawing legal and regulatory framework, with emphasis in concession structuring of transport infrastructure is also needed for this project. The study's scope of services forms a part of the following deliverables/tasks:

- a. Feasibility Study (technical and financial) for transaction structuring;
- b. Tender Process for Partner Selection;
- c. Post-transaction award assistance (up to financial close);

Consultant Governance Structure

It is expected that consultant team will be comprised of a Financial, Technical and Legal advisory team. The Financial Consultant will be the lead consultant and work closely with others as an integrated team under [**Relevant Authority's**] guidance, particularly during the feasibility and tender process.

Scope of Works

The below Scope of Services reflects the minimum requirements which [Relevant Authority] envisages will be necessary to conduct the consultancy advisory services.

- Stakeholders Management and Discussion
- Toll Road Traffic Demand Forecast
- Technical Analysis and Capex Estimation
- Legal and Regulatory Assessment
- E&S and Climate Resilience Assessment
- Preparation of financial model, business and financial analysis
- Project structuring and transaction advisory
- Transaction process management

Project Duration and Reporting

It is expected that the consultant will be appointed and commence its services no later than [xxx]. The entire project scope is expected to be completed within [xxx] weeks with the following indicative timeline allotted to the following:

- Final Feasibility Study- [XXX weeks];
- Report on final project structure - [XXX weeks];
- Tender Selection Process for Partner Selection (including negotiations & contract signing) - [XXX weeks];
- Post-award assistance (till financial close) - [XXX weeks];

Expert Requirements

Composition of Consultant's Expert Team

The project is scheduled to be delivered within [XXX] months, including [XXX] weeks for the completion of monitoring and evaluation report after the project financial close. Under the project requirements, the consultant will mobilize the following experts:

- Team Leader/ Project Manager
- Deputy Team Leader / Deputy Project Manager
- Traffic Forecasting Expert
- Legal Expert
- Regulatory and Policy Expert
- Environmental and Social and Climate Resilience Expert
- Transport Planner Expert
- Transport Economist
- Transaction Advisory Expert
- Financial Modelling and Business Senior Analyst

The Consultant will determine the number, effort and the nature of experts/support staff they will require to achieve the objectives of the project, in accordance with their proposed approach and methodology. However, the **[Relevant Authority]** requires a minimum of **[XXX]** key experts for proposal evaluation purposes. For any changes in the team composition post award shall have to be agreed with the **[Relevant Authority]**.

Project Deliverables

Project Deliverables

- A report covering technical, financial, and legal feasibility, including incorporation of feedback from the **[Relevant Authority]** (due in **XXX** weeks):
 - An overview of the project implementation schedule aligned with agreed dates during kick-off meeting;
 - A draft Road Traffic Demand Forecast Study;
 - Technical assessment covering the review of existing toll road and related facilities and available land areas and capacity assessment and its ability to accommodate the future demand with highlighting social and environmental impacts and climate change impacts (including climate resilience strategies) and mitigation strategies;
 - Financial and business feasibility analysis for the Project;
 - Legal and Regulatory Framework Assessment.
- Project structuring
- Project documentation preparation, including pre-qualification, request for proposal, draft concession agreement, and tender selection process
- Post-award assistance (till financial close)

Indicative Payment Schedule

- Professional fees: The project fee shall be proposed as a lump sum contract value, inclusive of typical travel expenses, including accommodation and per-diem of the professional consultants' team, and exclusive of [.] withholding tax and other applicable taxes and inclusive of consultant's country GST and Taxes;
- Payment terms: Terms of payment are proposed are as follows:
 - Inception report submission - **XX%** of the lump sum contract;
 - Draft Feasibility report submission - **XX%** of the lump sum contract;
 - Final Feasibility report submission - **XX%** of the lump sum contract;
 - Report on final project structure - **XX%** of the lump sum contract;
 - Completion of Tender Selection Process, Negotiation, & Award Signing - **XX%** of the lump sum contract;
 - Post-award assistance (till financial close) - **XX%** of the lump sum contract;
- Schedule of consultant hourly rates

Project Evaluation Criteria

Form of Proposal

The Consultant's proposal must be submitted in [bilingual (both in English and [.]) / English], duly signed by the authorized signatory of the Lead Consultant.

The following criteria will be used as guidance in comparing and evaluating the different proposals submitted by the Consultants. The proposal should include a technical and financial proposal comprised of the following:

- Organization Experience
- Specific experience of team members and dedication to the project
- Comments on Terms of Reference
- Description of Approach, Methodology, and Scope of Work Plan for Performing the Project:
 - Technical Approach and Methodology
 - Work Plan
 - Organization and Experts
 - Curriculum vitae of each expert and supporting staff
- Financial Proposal as proposed lump sum fee (with a breakdown of fixed professional fee, expenses, contingencies); consultants are also requested to submit discounted hourly rates.

Instruction to Consultants

Notice of Receipt and Queries and/or Clarification

Consultants shall acknowledge receipt of this RFP immediately upon receipt. The Consultants shall also advise of their intention to submit a Proposal no later than **XXXX202Y**.

Consultants may request clarifications and/or raise queries in writing, during the period of submission, with respect to any aspect of this RFP. The final date for requesting any query and/or clarification or further information is **XXX**. No queries and/or clarifications will be responded to after this date.

Should the [**Relevant Authority**] provide additional information or responses to a Consultant, it reserves the right to issue a copy of such information to all Consultants and all additional information or responses will form part of this RFP.

All correspondence including notification of receipt, confirmation of intention to submit a Proposal raising queries and/or clarifications shall be delivered directly to [**Procurement Unit of Relevant Authority**].

Submission of Proposal

Consultant proposals are to be submitted no later than **XXX202Y** (the "Submission Date") and delivered directly to: [**Procurement Unit of Relevant Authority**]

Validity of Proposal

Proposals shall remain valid and binding upon the Consultants for a period of ninety (90) calendar days from the Submission Date ("Period of Validity"). Proposals valid for a shorter period may be

rejected by **[Relevant Authority]** as failing to be deemed substantially responsive pursuant to this TOR. Proposals may be accepted at any time before the expiration of the Period of Validity.

[Relevant Authority] may, not later than fourteen (14) calendar days prior to the expiration of the Period of Validity, request the Consultant's consent to an extension of the Period of Validity. Both the request for extension and the response shall be made in writing.

Reservation of Rights

[Relevant Authority] reserves the right to, at its absolute discretion:

- Amend this TOR and/or the TOR process;
- Amend the indicative timetable as outlined in the earlier sections;
- Suspend, cancel or vary the intended selection process;
- Reject any and/or all Proposals;
- Award the engagement to whichever Consultant best satisfies the TOR requirements, such successful Consultant not necessarily being the Consultant with the lowest fees; and

Cost of Preparation of Proposals

All costs incurred by the Consultant in the preparation and lodgement of their Proposal or otherwise in the course of the evaluation of their Proposal shall be borne by the Consultant. **[Relevant Authority]** will not be responsible for and will not pay for, any expense or loss that may be incurred by the Consultant in the preparation, evaluation or negotiation of their Proposal.

Acknowledgement

Submission of a Proposal by the Consultant will constitute and evidence acknowledgement by the Consultant that it has:

- Examined this TOR (including any amendments or addenda); and
- Satisfied itself as to the correctness and sufficiency of its Proposal and that the fees submitted cover the cost of complying with all matters and things necessary for the due and proper performance of the Services and any other elements deemed necessary by the Consultant for a Project of this nature.

Form of Agreement

The successful agreement should form the basis of client-consultant model services agreement as defined in the draft **[to be drafted at the transaction stage]**.

Sample Risk Matrix – Toll Roads Sector

In selecting appropriate toll roads for asset recycling, the selected toll roads should have an operating track record, thereby **de-risking the private sector of upstream risks**, such as land acquisition, project planning, design risk, construction risks (time and cost-overrun risk), and development-related approvals.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
OPERATING RISKS	Inadequate performance	The risk of service quality provided by the concessionaire not meeting the toll road minimum service standard and any additional contracted service standards or availability. ¹		x		Ensuring the appointment of a competent concessionaire who could remediate any inadequacies in performance. Periodic monitoring and reporting of the compliance with the toll road minimum service standard.
	O&M costs overrun	Risk of O&M costs being higher than forecast or budgeted.		x		Appointment of competent concessionaire and management putting into place timely remedial steps.
	Life cycle costs overrun	Risk of lifecycle costs being higher than forecast or budgeted.		x		Appointment of competent concessionaire and management putting into place timely remedial steps to manage increased costs; passing of increased costs to end-users within the parameters of toll setting regime.
	Utilities costs overrun	Risks of utility costs being higher than estimated or budgeted due to inefficiencies or increased charges.		x		Appointment of competent concessionaire; proactive asset management to ensure that assets are maintained in a manner that optimises costs.
	Latent Defects and Existing Liabilities	Risks of latent defects and existing liabilities in the road assets.			x	Conduct adequate technical due diligence; the

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						concessionaire to bear the risk up to a certain threshold beyond which the risk will be borne by the public sector.
DEMAND / REVENUE RISKS	Demand and traffic risk	Actual traffic is lower than forecast causing a shortfall in toll revenue against budgeted revenue.		x		Ensure that traffic survey and forecast are conducted by competent advisers; defer timing of capacity-driven capital expenditure program; re-deployment of staff and re-calibration of level and intensity of operational functions.
	Failure to collect toll charges	Due to failure or non-optimality of collection system from users.		x		Proven toll collection system and good operational performance.
	Toll setting risk (1)	Risk that toll charges indexation does not match inflation or cost increases and escalations, thereby impacting margins or that the relevant authority does not approve escalation as per agreed fee and charges escalation mechanism.			x	Clear regulations or contract terms that regulate the rate and adjustments of toll charges.
	Toll Setting Risk (2)	Risk that that the relevant authority does not comply with the toll escalation mechanism and fails to allow for the indexation/increment to the toll charges (even where allowed).	x			This would constitute a default on the part of the relevant authority; such the occurrence of such an event would require compensation.
FINANCIAL RISK	Failure to achieve financial close	Inability to achieve financial close due to market uncertainty or the project capital structure is not optimal.		x		Good coordination with potential and credible lenders.
	Foreign exchange rate risk	Fluctuation of foreign exchange rate.		x		Financing in local currency to the extent possible; taking into accounts currency fluctuation hedging instruments, such as future contract and currency options.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
	Inflation and interest rate risk	Increase of inflation rate used for estimating life-cycle costs and interest rate.		x		Fee and charges indexation factor; interest rate hedging.
CHANGE IN LAW	General change in law	Change in law such as taxation which impacts all businesses and industries.		x		General change in law risk should be borne by the concessionaire.
	Discriminatory or project specific change in law	Change in project/sector-specific law or regulation such as fee and charges setting.	x			Mediation, negotiation, political risk insurance.
FORCE MAJEURE	Natural disasters	The occurrence of natural disasters disrupting operations.			x	Insurance, to extent possible. In extended FM, parties will have the right to terminate. Climate adaptation plan. Emergency Preparedness and Response plan (EPR plan) / Disaster Risk Management plan (DRM plan). Incorporate Qualified Climate Risk Events.
	Political force majeure	Government action and inactions.	x			Insurance, to extent possible; termination with compensation if settlement cannot be reached.
	Prolonged force majeure	If above prolongs for 6 to 12 months, may cause economic problems to the affected party (esp. if insurance does not exist).			x	Either party should be able to terminate the contract and trigger an early termination.
E&S Risks	E&S risks management	Road development and operation create many E&S impacts and risks, which if not appropriately managed, can result in impact on the social and natural environment.		x		The party in charge for construction and Operation and Maintenance (O&M) should have undertaken E&S Studies prepared management plans to mitigate any adverse impacts and risks and consistent with applicable laws.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						<p>Replanting trees and mitigating the cutting of trees in the road area.</p> <p>Reducing the use of electricity by using renewable energy and introducing energy efficiency measures and reducing fuel consumption by using environmentally friendly equipment.</p> <p>Design and implementation of noise control measures (e.g., noise barriers along the border of the right-of way such as earthen mounds, walls, and vegetation).</p> <p>Solid waste management plan.</p> <p>Integrated vegetation management (IVM).</p> <p>Management practices to prevent and control impacts to terrestrial and aquatic habitats (e.g., wildlife underpasses, overpasses, bridge extensions, viaducts, enlarged culverts, and fencing).</p>
		Risk of noncompliance on the E&S aspect of the concession agreement.			x	The parties to review compliance of the E&S aspect of the Concession Agreement, during construction and O&M.
	Climate risks *	Deterioration of road surface integrity.			x	Enhance design criteria to withstand extreme heat.

RISK	DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
	<p>Thermal expansion of bridge joints and paved surfaces.</p> <p>Damage to highways, roads, underground tunnels, and bridges due to flooding, inundation of coastal areas and coastal erosion.</p> <p>Increased scour of bridges.</p> <p>Increased instability of embankments.</p> <p>Damage to road infrastructure due to landslides.</p> <p>Increased susceptibility to wildfires.</p>				<p>Improve emergency repair procedures.</p> <p>Upgrade and reinforce drainage systems.</p> <p>Integrate climate resilience in maintenance regimes and road surface specifications.</p> <p>Using permeable paving surfaces to reduce run-off during heavy rainfalls.</p> <p>Road slope and side cliff design with high water permeability and protection.</p> <p>Install fire barriers beside roads.</p> <p>Bridge foundations reinforced to cope with higher magnitude flood events and river flow speed.</p> <p>Emergency gates in the central reservation allow traffic to turn around if the road becomes impassable.</p>

* Based on "WB (2016) - *Emerging Trends in Mainstreaming Climate Resilience in Large Scale, Multi-sector Infrastructure PPPs*"

Key variables to monitor on climate risks and its impacts, in particular for toll roads assets:

- Pavement cracks / potholes (road area affected)
- Embankment failure / Landslides (road length affected)
- Asphalt wear (roughness)
- Wildfires Events in 100 km surrounding area (# of events)
- Bridge joints expansion (in millimetres)
- Scour (road area affected)
- Maximum temperature and deviation vs. average monthly max temperature (in °C)
- Sea level rise (in meters)
- Flooding (road length affected)
- Intense precipitation events (in millimetres)
- Storm surge (# events and intensity)
- Climate related accidents (# of events)
- Paint peeling (road length affected)
- Road unavailability (days per year)
- GHG emissions (tons CO2 e.g., per year)

Module 4 - Ports Module

This module sets out sector-specific asset recycling guidelines for the ports sector, including sector-specific due diligence requirements, sample risk allocation matrix and sample terms of reference (TOR) for selection of transaction advisors.

Due Diligence for Ports

The objectives of the due diligence process are:

- Review the condition of the ports (including the superstructure and the terminal equipment, as is the case);
- Review the service and performance standards provided under the current operations of the port;
- Review the legal arrangements by which the relevant authority is occupying and operating the port;
- Review the financial status of the port and its financial feasibility if the port is to be operated and managed by a private sector party;
- Determine measures that can be implemented to enhance value through the asset recycling transaction; these may include considerations such as capital investment in the port superstructure and terminal equipment; and
- Identification of key (environmental and social) E&S and climate risks to be taken into account in the selection process and risk allocation.

In the context of a port asset recycling transaction, the following additional due diligence activities should be undertaken

- Demand forecast; including consideration of any competing ports or future port developments;
- Assessment of the port infrastructure and future capacity development;
- Assessment of financial performance;
- Assessment of E&S risks and climate risks.

Traffic Forecast and Demand Assessment

The relevant authority should consider the following aspects when conducting traffic forecast and an assessment of demand for the port:

Historical analysis

- a macro-economic analysis of the port traffic trend, including historical trend of import and export in the region;
- historic container, cargo, port related services and other demands at the port; and

- impact of existing and foreseeable policy changes on the demand at the port, including the potential of upcoming new ports around the region.

Forecast

- project a baseline forecast for growth in container, cargo, port related services and other demands for the period under consideration. With respect to the operations of the terminal, forecasts should be made with respect to terminal handling charges (THCs) with respect to cargo movement/stevedoring services performed by the operator at the terminal. For container terminals, THCs cover the movement of a container between the ship's hold to the exit-entry gate via the container terminal yard;
- identify potential scenarios for both downside and upside growth;
- based on the port infrastructure development plan, assess potential for new types of cargo (for example, liquid / dry bulk, reefer container, etc) or different vessel sizes that the port will have the capacity to handle; and
- assess potential for business and development of other port related services, such as logistics, land rental and warehousing.

Port Infrastructure and Capacity Development

Undertake a preliminary assessment of the existing port infrastructure, propose a plan to improve capacity or ability to handle new types of cargo and vessels.

A gap analysis report, including an assessment of the port's condition, to determine the adequacy to provide required service levels should also be prepared. The gap analysis should cover:

- Assessment of the remaining useful life of the port;
- Potential replacement / overhaul / major maintenance required and the timing thereof;
- Overall performance against benchmark with reference to the current capacity; and
- Service specifications required to meet future needs.
- Based on the above findings and local/international benchmarks, provide a preliminary quantity estimate for the proposed upgrade as applicable including all required services, such as pre-design investigations, design, supervision, etc.

Financial Performance

Due diligence should be undertaken of the port's financial performance.

To this end, the due diligence process should review revenues derived from the port charges, and the operating expense; presenting historical and projected Earnings Before Interest, Tax and Depreciation/Amortisation (EBITDA). The elements are as follows:

Revenues

- Current structure of the relevant charges and the applicable fee adjustment mechanism/s:
 - Base charges detailing the prevailing port charges and historical revenue therefrom;
 - Base charges growth rate detailing prevailing escalation or indexation regime and an assessment as to whether adjustments have been adequate to cover historical inflation.

- Forecast of port revenues based on demand forecast and prevailing charging mechanisms.

Operating Expenses

- Review operations and maintenance expenses comprising staff and non-staff costs
- Review the total operating cost by benchmarking it against the median average of comparable (i.e., regional or local port assets)

Capital Expenditure

- Assess projected capital investment in expansions and asset renewal and detail any required expenditure plans (for improvement of service levels, technological upgrade, increasing capacity and procurement of terminal equipment) to meet expected growth in demand over the term of the concession.

E&S and Climate Resilience Due Diligence

E&S due diligence should be conducted to identify:

- gaps between applicable laws and lenders' requirements and ways to bridge them with the relevant timeline;
- key E&S risks, such as but not limited to: land acquisition and/or clearing, resettlement, impact on livelihood with attention to limitation in accessing the fishing group, terrestrial and aquatic habitat alteration and biodiversity, water quality, air emissions, waste management, hazardous materials, oil spills, noise and vibration (including underwater), legacy issues (if any); and
- applicable E&S permitting and studies to be developed and the risks allocation between the relevant authority and the private sector.

The Climate Resilience due diligence should include:

- assessment of GHG emissions baseline of the port;
- historical climate data and natural disaster events affecting the port;
- review of climate and natural disasters risks of the port asset (e.g. flood risk to ports, increased disruption to port operations; reduced navigability of rivers);
- assessment of the Disaster Risk Management plan or Emergency Preparedness and Response plan (if in place); and
- assessment of integration of climate resilience concepts in maintenances regimes and design specifications.

Sample TOR for Ports Development Transaction Advisors

Terms of Reference - Selection of Transaction Advisors for Ports

Introduction

Project Background

The [**Relevant Authority's**] Board of Directors is engaging integrated consultant services (either as a single firm or consortium, referred to as 'the consultant') for the transaction advisory services for the [**operations, maintenance, and management**] of the [xxx] port for the next [xxx] years under the Asset Recycling Scheme ("the Project").

Objective and Purpose of the Project

The Consultant will directly support the [**Relevant Authority**] in providing advisory and transaction services for this Project. The key project objective is to carry out the technical and financial feasibility studies, develop technical specifications and standards, draft legal contractual framework and assist in the administration of partner selection from inception to the financial close.

During the tender support process, the consultant will assist the [**Relevant Authority**] in implementing a competitive tender, consistent with the best international practices and local laws.

Legal Basis

The legal basis for the framework of the preparation and selection of a partner for [xxx] port under the Asset Recycling Scheme refers to [.] Laws and Regulations, including but not limited to:

1. [xxx]
2. [xxx]

Scope of Work

Introduction

The Consultant scope of work involves multi-disciplinary capabilities and expertise involving planning, port traffic forecasting, port business valuation, port funding and financing and transaction advisory. In addition, the experience of drawing legal and regulatory framework, with emphasis in concession structuring of transport infrastructure is also needed for this project. The study's scope of services forms a part of the following deliverables/tasks:

- a. Feasibility Study (technical and financial) for transaction structuring;
- b. Tender Process for Partner Selection;
- c. Post-transaction award assistance (up to financial close);

Consultant Governance Structure

It is expected that consultant team will be comprised of a Financial, Technical and Legal advisory team. The Financial Consultant will be the lead consultant and work closely with others as an integrated team under [**Relevant Authority's**] guidance, particularly during the feasibility and tender process.

Scope of Works

The below Scope of Services reflects the minimum requirements which [Relevant Authority] envisages will be necessary to conduct the consultancy advisory services.

- Stakeholders Management and Discussion
- Port Traffic Demand Forecast
- Technical Analysis and Capex Estimation
- Legal and Regulatory Assessment
- E&S and Climate Resilience Assessment
- Preparation of financial model, business and financial analysis
- Project structuring and transaction advisory
- Transaction process management

Project Duration and Reporting

It is expected that the consultant will be appointed and commence its services no later than [xxx]. The entire project scope is expected to be completed within [xxx] weeks with the following indicative timeline allotted to the following:

- Final Feasibility Study- [XXX weeks];
- Report on final project structure - [XXX weeks];
- Tender Selection Process for Partner Selection (including negotiations & contract signing) - [XXX weeks];
- Post-award assistance (till financial close) - [XXX weeks];

Expert Requirements

Composition of Consultant's Expert Team

The project is scheduled to be delivered within [XXX] months, including [XXX] weeks for the completion of monitoring and evaluation report after the project financial close. Under the project requirements, the consultant will mobilize the following experts:

- Team Leader/ Project Manager
- Deputy Team Leader / Deputy Project Manager
- Traffic Forecasting Expert
- Legal Expert
- Regulatory and Policy Expert
- Environmental and Social and Climate Resilience Expert
- Transport Planner Expert
- Transport Economist
- Transaction Advisory Expert
- Financial Modelling and Business Senior Analyst

The Consultant will determine the number, effort, and the nature of experts/support staff they will require to achieve the objectives of the project, in accordance with their proposed approach and methodology. However, the [**Relevant Authority**] requires a minimum of [XXX] key experts for proposal evaluation purposes. For any changes in the team composition post award shall have to be agreed with the [**Relevant Authority**].

Project Deliverables

Project Deliverables

- A report covering technical, financial, and legal feasibility, including incorporation of feedback from the [**Relevant Authority**] (due in XXX weeks);
- An overview of the project implementation schedule aligned with agreed dates during kick-off meeting;
- A draft Port Traffic Demand Forecast Study;
- Technical assessment covering the review of existing port and related facilities and available land areas and capacity assessment and its ability to accommodate the future demand with highlighting social and environmental impacts and climate change impacts (including climate resilience strategies) and mitigation strategies;
- Financial and business feasibility analysis for the Project;
- Legal and Regulatory Framework Assessment.
 - Project structuring
 - Project documentation preparation, including pre-qualification, request for proposal, draft concession agreement, and tender selection process
 - Post-award assistance (till financial close)

Indicative Payment Schedule

- Professional fees: The project fee shall be proposed as a lump sum contract value, inclusive of typical travel expenses, including accommodation and per-diem of the professional consultants' team, and exclusive of [.] withholding tax and other applicable taxes and inclusive of consultant's country GST and Taxes;
- Payment terms: Terms of payment are proposed are as follows:
 - Inception report submission - **XX%** of the lump sum contract;
 - Draft Feasibility report submission - **XX%** of the lump sum contract;
 - Final Feasibility report submission - **XX%** of the lump sum contract;
 - Report on final project structure - **XX%** of the lump sum contract;
 - Completion of Tender Selection Process, Negotiation, & Award Signing - **XX%** of the lump sum contract;
 - Post-award assistance (till financial close) - **XX%** of the lump sum contract;
- Schedule of consultant hourly rates

Project Evaluation Criteria

Form of Proposal

The Consultant's proposal must be submitted in [bilingual (both in English and [.]) / English], duly signed by the authorized signatory of the Lead Consultant.

The following criteria will be used as guidance in comparing and evaluating the different proposals submitted by the Consultants. The proposal should include a technical and financial proposal comprised of the following:

- Organization Experience
- Specific experience of team members and dedication to the project
- Comments on Terms of Reference
- Description of Approach, Methodology, and Scope of Work Plan for Performing the Project:
 - Technical Approach and Methodology
 - Work Plan
 - Organization and Experts
 - Curriculum vitae of each expert and supporting staff
- Financial Proposal as proposed lump sum fee (with a breakdown of fixed professional fee, expenses, contingencies); consultants are also requested to submit discounted hourly rates.

Instruction to Consultants

Notice of Receipt and Queries and/or Clarification

Consultants shall acknowledge receipt of this RFP immediately upon receipt. The Consultants shall also advise of their intention to submit a Proposal no later than **XXXX202Y**.

Consultants may request clarifications and/or raise queries in writing, during the period of submission, with respect to any aspect of this RFP. The final date for requesting any query and/or clarification or further information is **XXX**. No queries and/or clarifications will be responded to after this date.

Should the **[Relevant Authority]** provide additional information or responses to a Consultant, it reserves the right to issue a copy of such information to all Consultants and all additional information or responses will form part of this RFP.

All correspondence including notification of receipt, confirmation of intention to submit a Proposal raising queries and/or clarifications shall be delivered directly to **[Procurement Unit of Relevant Authority]**.

Submission of Proposal

Consultant proposals are to be submitted no later than **XXX202Y** (the "Submission Date") and delivered directly to: **[Procurement Unit of Relevant Authority]**

Validity of Proposal

Proposals shall remain valid and binding upon the Consultants for a period of ninety (90) calendar days from the Submission Date ("Period of Validity"). Proposals valid for a shorter period may be rejected by **[Relevant Authority]** as failing to be deemed substantially responsive pursuant to this TOR. Proposals may be accepted at any time before the expiration of the Period of Validity.

[Relevant Authority] may, not later than fourteen (14) calendar days prior to the expiration of the Period of Validity, request the Consultant's consent to an extension of the Period of Validity. Both the request for extension and the response shall be made in writing.

Reservation of Rights

[Relevant Authority] reserves the right to, at its absolute discretion:

- Amend this TOR and/or the TOR process;
- Amend the indicative timetable as outlined in the earlier sections;
- Suspend, cancel or vary the intended selection process;
- Reject any and/or all Proposals;
- Award the engagement to whichever Consultant best satisfies the TOR requirements, such successful Consultant not necessarily being the Consultant with the lowest fees; and

Cost of Preparation of Proposals

All costs incurred by the Consultant in the preparation and lodgement of their Proposal or otherwise in the course of the evaluation of their Proposal shall be borne by the Consultant. **[Relevant Authority]** will not be responsible for and will not pay for, any expense or loss that may be incurred by the Consultant in the preparation, evaluation or negotiation of their Proposal.

Acknowledgement

Submission of a Proposal by the Consultant will constitute and evidence acknowledgement by the Consultant that it has:

- Examined this TOR (including any amendments or addenda); and
- Satisfied itself as to the correctness and sufficiency of its Proposal and that the fees submitted cover the cost of complying with all matters and things necessary for the due and proper performance of the Services and any other elements deemed necessary by the Consultant for a Project of this nature.

Form of Agreement

The successful agreement should form the basis of client-consultant model services agreement as defined in the draft **[to be drafted at the transaction stage]**.

Sample Risk Matrix – Ports Sector

For port assets that are candidates for asset recycling, they should have an operating track record, thereby **de-risking the private sector of upstream risks**, such as land acquisition, project planning, design risk, construction risks (time and cost-overrun risk), and development-related approvals.

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
OPERATING RISKS	Inadequate performance	The risk of service quality provided by the concessionaire not meeting contracted service standards or availability.		x		Ensuring the appointment of a competent concessionaire, or private sector party that can remediate any inadequacies in performance. Periodic monitoring and reporting of the compliance with the port minimum service standard.
	O&M costs overrun	Risk of O&M costs being higher than forecast or budgeted.		x		Appointment of a competent concessionaire or private sector party with experienced management that is able to put into place timely remedial steps.
	Life cycle costs overrun	Risk of lifecycle costs being higher than forecast or budgeted.		x		Appointment of a competent concessionaire and management putting into place timely remedial steps to manage increased costs; passing of increased costs to end-users within the parameters of toll setting regime.
	Utilities costs overrun	Risks of utility costs being higher than estimated or budgeted due to		x		Appointment of a competent concessionaire; proactive asset

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
		inefficiencies or increased charges.				management to ensure that assets are maintained in a manner that optimises costs.
	Latent Defects and Existing Liabilities	Risks of latent defects and existing liabilities in the port assets.			x	Conduct adequate technical due diligence; the concessionaire to bear the risk up to a certain threshold beyond which the risk will be borne by the public sector.
DEMAND / REVENUE RISKS	Demand and traffic risk	Actual traffic is lower than forecast causing a shortfall in revenue against budgeted revenue.		x		Ensure that traffic forecast are conducted by qualified and experienced advisers; defer timing of capacity-driven capital expenditure program; re-deployment of staff and re-calibration of level and intensity of operational functions.
	Failure to collect toll charges	Due to failure or non-optimality of collection system from users.		x		Proven collection system and good operational performance.
	Tariff setting risk (1)	Risk that toll charges indexation does not match inflation or cost increases and escalations, thereby impacting margins.			x	Clear regulations or contract terms that regulate the rate and adjustments of toll charges.
	Tariff setting Risk (2)	The relevant authority does not approve escalation as per agreed fee and charges escalation mechanism.	x			Contract should provide that this constitute a default on the part of the authority.
FINANCIAL RISK	Failure to achieve financial close	Inability to achieve financial close due to market uncertainty or the project capital		x		Good coordination with

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
		structure is not optimal.				potential and credible lenders. Ensure quality in financing aspects of the bid (including potential lenders and feasibility of proposed financing) and monitor progress of financing process.
	Foreign exchange rate risk	Fluctuation of foreign exchange rate.		x		This will depend on the currency in which charges and fees are denominated.
	Inflation and interest rate risk	Increase of inflation rate used for estimating life-cycle costs and interest rate.		x		Fee and charges indexation factor; interest rate hedging.
CHANGE IN LAW	General change in law	Change in law such as taxation which impacts all businesses and industries.		x		General change in law risk should be borne by the concessionaire.
	Discriminatory or project specific change in law	Change in project-specific law or regulation such as fee and charges setting.	x			Mediation, negotiation; political risk insurance.
FORCE MAJEURE	Natural disasters	The occurrence of natural disasters disrupting operations.			x	Insurance, to extent possible. In extended FM, parties will have the right to terminate. Climate adaptation plan. Emergency Preparedness and Response plan (EPR plan) / Disaster Risk

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						Management plan (DRM plan). Incorporate Qualified Climate Risk Events.
	Political force majeure	Events of war, riots, civil disturbance.			x	Insurance, to extent possible; termination with compensation if settlement cannot be reached.
	Prolonged force majeure	If above prolongs for 6 to 12 months, may cause economic problems to the affected party (esp. if insurance does not exist).			x	Either party should be able to terminate the contract and trigger an early termination.
E&S Risks	E&S risks management	Ports development and operation create many E&S impacts and risks, which if not appropriately managed, can result in impact on the social and natural environment. Potential oil spills.		x		The party in charge for construction and Operation and Maintenance (O&M) to have in place an ESMS and develop E&S Studies addressing the E&S project impacts and risks and consistent with applicable laws. Oil spill equipment, training and membership to 24/7 365 days response services. Provide shore power to reduce emissions from ships at berth. Foster use of sprinkler system (dust emissions dry bulk).

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						Decarbonize the cargo-handling facilities.
		Risk of noncompliance on the E&S aspect of the concession agreement.			x	The parties to hire an Independent Engineer (IE) having E&S expertise to review compliance of the E&S aspect of the Concession Agreement, during construction and O&M.
	Climate risks *	<p>Damage to port infrastructure and equipment and loss of port operability due to sea level rise, increased storminess, and storm surges.</p> <p>Negative impacts on navigation of inland waterways as river flows are reduced due to changes in average precipitation and increased sedimentation.</p> <p>Reduced navigability due to increased magnitude and frequency of flooding and siltation due to increased extreme rainfall.</p> <p>Erosion and scour of foundations, pilings, footings, and shorelines from overland flow.</p>		x		<p>Increased height and strength of sea walls.</p> <p>Facilitate ecosystem-based adaptation.</p> <p>Implement navigation warning systems.</p> <p>Improve emergency repair procedures.</p> <p>Integrate climate resilience in maintenance regimes (e.g., dredging plans; prioritize materials tolerant to salinity and acidification).</p> <p>Provide hydraulic structures of an adequate capacity to pass water under a canal.</p> <p>Cathodic protection against corrosion.</p>

RISK		DESCRIPTION	PUBLIC	PRIVATE	SHARED	MITIGATION
						<p>Design activities, operations and maintenance related to sedimentation and reduced river flows (e.g., remove redundant structures that promote deposits of sediment or debris; educate local communities about consequences of trash disposal around watercourses; prevent debris washing into navigable areas; introduce diversions, one-way systems or temporary closures of ports or waterways).</p> <p>Design activities, operations and maintenance related to coastal or bank erosion (e.g., use nature-based resilience, for example by creating offshore berms or barrier islands or supplementing or enhancing marsh, mangrove, or other intertidal habitats).</p>

* Based on "WB (2016) - Emerging Trends in Mainstreaming Climate Resilience in Large Scale, Multi-sector Infrastructure PPPs" and based on "IDB (2021) - Climate Risk and Ports: A Practical Guide on Strengthening Resilience"

Key variables to monitor on climate risks and its impacts, for port assets:

- Sea level rise (in meters)
- Wave height (in meters)
- Sea roughness inside port (in meters)
- Flooding (port area affected)
- Intense precipitation events (in millimetres)
- Wind speed (in km/hour)
- Storm surge (# events and intensity)
- Fog (# days affecting port operations)
- River/Channel flow rate (in m³/hour)
- Sedimentation rate (in m³/day)
- Coastal and bank erosion (port area affected)
- Port unavailability (# days per year)
- GHG emissions (tons CO₂ e.g., per year)

Module 5 - Sample Term Sheet

This term sheet provides certain baseline requirements for a proposed concession-type Asset Recycling Agreement which may be initiated by Relevant Authority and sets out a framework for the terms and conditions to be set out in the agreement. These terms and conditions will be subject to further direction or discretion of the Relevant Authority initiating the relevant asset recycling transaction, in accordance with applicable regulations and guidelines in effect.

This term sheet is only an indicative term sheet and should not be used without being reviewed and revised by the transaction advisory team working on the relevant asset recycling transaction. This term sheet will have to be customized to include project-specific and sector-specific provisions during the transaction stage.

Key Provision Term Sheet

Key Provisions
Introduction
<p>The [Asset Recycling] Agreement (the Agreement) is entered into as of [●] by and between:</p> <ol style="list-style-type: none"> a) [●], the Relevant Authority established and organised under the laws of the [●], with its principal address at [●] (Initiator); and b) [●], a limited liability company duly organised and existing under the laws of the [●], with its principal address at [●] (Project Company). <p>Note: The parties will be the Relevant Authority initiating the asset recycling concession transaction and a special purpose project company established by the winning bidder of the asset recycling transaction tender.</p>
Project
<p>The Project comprises:</p> <ol style="list-style-type: none"> a) [the operation, management and maintenance of [●]]; b) [if refurbishments / expansions / operational efficiencies are contemplated during the Term, relevant modifications and enhancements required to the project/asset]; c) [the transfer or hand-back, as applicable, of [●] in accordance with the terms of the Agreement]; d) [the sale of [●] by the Project Company to the Initiator / the provision by the Project Company of the following services [●]]; and e) [the financing of the foregoing activities]. <p>The Project shall be used for [●] and for no other purposes except as may be provided in the Agreement.</p> <p>Note: The foregoing description should be adjusted to align with the project description in the Business Case.</p>
Upfront concession fee
<p>The amount of [●], payable by the Project Company, or on its behalf, to the Initiator, as a condition precedent to the Effective Date of the Agreement.</p>

Note: In a traditional auction process, the winning bidder will be the bidder with the highest unconditional up-front payment. Other auction structures may, however, be selected. The transaction advisory team may recommend alterations to this structure if either (1) the project structure contemplates a series of payments being made by the Project Company to the Initiator, and/or (2) the project structure includes the purchase of goods and/or services from the Project Company by the Initiator.

Effective date

The date on which the Project Company and the Initiator sign a certificate stipulating that all of the following conditions precedent have been fulfilled:

- a) [the Project Company has transferred the Up-front Concession Payment to the Initiator];
- b) [the Project Company has provided any required performance bonds or guarantees in favour of the Initiator];
- c) [the Project Company has established any escrow or reserve accounts which have been specified in the Agreement and have funded such accounts to at least the requisite level];
- d) [the Project Company has provided evidence that it is has been duly established and is validly existing under [●] law];
- e) [the execution and delivery of all Project Documents specified in the Agreement by the parties thereto]; and
- f) [other].

Note: The Effective Date is the first major milestone after the winning bidder has been appointed and should take place as soon as possible after the signing date.

Term

From the [Effective Date] [Closing Date] until the [●] anniversary of the [Effective Date] [Closing Date], subject to any extension made pursuant to the Agreement or the termination of this Agreement.

Note: The transaction advisory team should recommend a duration for the concession term and whether the term should start at the effective date, closing date or some other date (such as a commissioning date). The term of the concession agreement should comply with sector specific regulations.

Closing date

[The date on which the Project Company and the Initiator sign a certificate stipulating that all of the following events have occurred:

- a) [copies of any contracts, subcontracts, service agreements and supply agreements to which the Initiator is a party, and which have been identified in the Agreement, together with duly executed and delivered novation and assignment agreements effective as of the Closing Date, thereby novating or assigning such rights and obligations from the Initiator to the Project Company];
- b) [copies of all subcontracts, service agreements and supply agreements of the Project Company not referred to above (with any Proprietary Information removed) have been provided to and received by the Initiator];
- c) [copies of all funding and financing agreements of the Project Company (with any Proprietary Information removed) have been provided to and received by the Initiator];
- d) [copies of all consents, permits, licenses and approvals required by the Project Company to carry out the Project have been provided to and received by the Initiator];

- e) [the Project Company has provided the Initiator with a legal opinion of the Project Company's counsel which provides that the Project Company is duly established and validly existing, holds all consents, permits, licenses and approvals required by the Project Company to carry out the Project, has validly executed and delivered the Agreement and all other agreements to which the Initiator and its subsidiaries and affiliates are party, that such agreements are enforceable against the Project Company in accordance with their respective terms and such other matters which may specified in the Agreement];
- f) [shares in the Project Company have been duly issued in favour of the Initiator in the amount and with the characteristics and terms described in the Agreement]; and

Note: Issuance of shares in the Project Company to the Initiator is only appropriate if the joint venture structure is recommended in the Business Case. This term sheet contemplates that the private sector will establish the Project Company and issue shares to the Initiator. Where this approach is taken, the transaction advisory team should specify the requisite percentage and characteristics of the shares. The Agreement can also provide detailed terms and conditions of the shares which must be fulfilled for this condition to be fulfilled.

- g) [any other documents specified in the Agreement].]

Responsibilities of Project Company

The Project Company's responsibilities under the Agreement shall include:

- a) [accepting delivery and taking possession of the Project including certain inventory, equipment, consumables and other movable assets specified in the Agreement from the Initiator];
- b) [assuming full responsibility for the site of the Project and the buildings and the immovable assets specified in the Agreement from the Initiator and minimising inconvenience, disruption and damage to the occupants of, and visitors to, the site of the Project and adjacent sites];
- c) [assuming full responsibility for the operation and maintenance in relation to the Project];
- d) [arranging for any modifications or enhancements of the Project to be delivered in accordance with the Agreement and the requirements of the other Project Documents];
- e) [from time to time, supplying all further equipment, materials, consumables and any other items whatsoever, whether of a temporary or permanent nature, which it may require for the proper performance of its obligations in accordance with the Agreement];
- f) [paying the Upfront Concession Fee [and any Recurrent Concession Fee] provided for under the Agreement];
- g) [accepting employment of all employees of the Initiator who were associated with or connected to the Project and whose names are specified in the Agreement, and to supervise, control and manage all such employees in accordance with the terms of the Agreement];
- h) [ensuring that all of Project Company's employees are properly trained and qualified, competent and experienced to carry out their respective responsibilities];
- i) [the preparation and entering into of all subcontracts, service agreements and supply agreements of the Project Company required for the operation and delivery of the Project (other than such agreements which have been novated and/or assigned from the Initiator to the Project Company)];
- j) [due and proper application for, and diligent effort to obtain, all consents, permits, licences and approvals required by the Project Company to carry out the Project, and all extensions, renewals and amendments thereof (other than the consents, permits, licenses and approvals required to be provided/transferred by the Initiator)];

- k) [due and proper application for, and diligent effort to obtain, all work permits, employment passes, dependents' passes, visas and other permits required for all personnel of the Project Company to carry out the Project, and all extensions, renewals and amendments thereof];
- l) [control and management of site of the Project and provision of all reasonable and customary measures within its control required to ensure the protection and security of the site of the Project];
- m) [provision of any non-exclusive easements and/or rights of way in respect of the site of Project in favour of the Initiator];
- n) [providing on or prior to the Effective Date any required performance bonds or guarantees in favour of the Initiator];
- o) [establishing any escrow or reserve accounts which have been specified in the Agreement and funding such accounts to at least the requisite level];
- p) [exercising all reasonable measures within its control to develop and maintain good relations with the people in the community within the vicinity of the Project that could reasonably be expected to be adversely affected or impacted by the implementation of the Project];
- q) [the strict compliance, observation and implementation by the Project Company with GIIP and all Applicable Laws and E&S standards];
- r) [delivering regular reports to the Initiator regarding the Project in accordance with the Agreement];
- s) [payment of all taxes, duties and fees payable in respect of the Project and all related movable and immovable assets, land and buildings, as well as all other equipment, materials, chemicals, consumables and any other items in accordance with Applicable Law unless otherwise so provided in the Agreement];
- t) [Charging and collection of relevant tariffs or fees (as permitted by the Agreement or relevant regulations)and
- u) [other].

Note: This section provides a starting point only and must be customised to the project's specific requirements, as set out in the Business Case.

Responsibilities of the Initiator

The Initiator's responsibilities under the Agreement shall include:

- a) [furnishing the Project Company with, and placing the Project Company in possession of, the [relevant Project asset] including certain inventory, equipment, consumables and other movable assets specified in the Agreement];
- b) [allowing the Project Company full and free access to, and undisturbed use, occupation, possession and enjoyment of, the site of the Project and the buildings and the immovable assets specified in the Agreement];
- c) [transferring to the Project Company all employees of the Initiator who are associated with or connected to the Project and whose names are specified in the Agreement];
- d) [cooperating with the Project Company in connection with the Project Company's applications for all consents, permits, licences and approvals required by the Project Company to carry out the Project, and all extensions, renewals and amendments thereof, so as to expedite the consideration thereof by the appropriate government instrumentality of the [●], provided that such applications are in compliance with all applicable legal and regulatory requirements and the terms of the Agreement /

[where necessary, providing/transferring certain licences required for the operations of the Project which are held by the Initiator or its affiliates];

- e) [cooperating with the Project Company in connection with the Project Company's applications for all work permits, employment passes, dependents' passes, visas and other permits required for all personnel of the Project Company to carry out the Project, and all extensions, renewals and amendments thereof, so as to expedite the consideration thereof by the appropriate government instrumentality of the [●], provided that as such applications are in compliance with all applicable legal and regulatory requirements and the terms of the Agreement];
- f) [the due and proper application for, and diligent effort to obtain, all consents, permits, licenses and approvals required by the Initiator to carry out its obligations under the Agreement, and all extensions, renewals and amendments thereof];
- g) [as reasonably requested by the Project Company, discussing the Project with, and providing publicly available information about the Initiator to, any other party providing financing for the Project; provided, in any event, that the Initiator shall not be required to make any representations or undertakings in connection with any such discussions or in connection with any financing arrangement, except as may be expressly provided for in the Agreement];
- h) [making such easements and rights of way available to the Project Company as may be required to carry out the Project, as detailed in the Agreement];
- i) [if the Project involves an expansion or upgrades, providing support to the Project Company in applying for necessary permits and licences as well as any land procurement necessary for such expansion / upgrade; in a way consistent with national law and E&S standards] and
- j) [other].

Note: This section provides a starting point only and must be customised to the Project's specific requirements, as set out in the Business Case.

Facilities, Equipment and Plant

- a) [The Project Company shall not acquire any title to or ownership interests in or to any of the assets or the works unless expressly provided in the Agreement, and the Project Company shall acknowledge that the works and all such existing assets as at the Effective Date (including all equipment, accessories, supplies, spare parts and materials forming part thereof) are and shall remain the property of the Initiator. The Project Company shall have no right to grant, and shall not permit the creation of, any encumbrances on such existing assets.]
- b) [Unless otherwise specified in the Agreement, assets acquired or constructed after the [Effective Date] [Closing Date] (including all equipment, accessories, supplies, spare parts and materials forming part thereof) may be owned by, and considered the Property of, the Project Company.]
- c) [Subject to the payment of any consideration required therefor, upon termination or expiry of the term of the Agreement, all of the Project Company's ownership and/or rights in respect of the Project (and all related movable and immovable assets, land and buildings, as well as all other equipment, materials, chemicals, consumables and any other items whatsoever), and all related rights and warranties, shall be directly or indirectly transferred to the Initiator, free of all encumbrances or other party claims, with full indemnity from the Project Company to the Initiator, in accordance with the Agreement.]
- d) [The Project Company will ensure that the Project meets the Initiator's return conditions at the end of the term of the Agreement. Such transfer shall occur in accordance with a hand-back procedure to be detailed and set out in the Agreement.]

Note: Hand back procedure to be determined by SOE and its transaction advisory team.

[Remuneration and Payment]

Payment by the Project Company:

In consideration for the concession rights afforded by the Initiator to the Project Company for the Term:

- a) The Project Company shall pay the Upfront Concession Fee to the Initiator as a condition precedent to the effectiveness of the Agreement; and
- b) The Project Company shall pay in a timely manner any Recurrent Concession Fee which may be provided under the Agreement.

Payment by the Initiator/Users of the Project:

- c) [In consideration for the Project Company fulfilling its obligations under the Agreement, [the Initiator shall pay the Project Company the amounts specified in the Agreement][the Project Company shall be entitled to collect and retain all revenue, tariffs and other amounts in respect of the Project from its users and/or the general public, as applicable.]
- d) [Failure by the Project Company to [deliver [] / provide []] to the standards set out in the Agreement shall result in [a reduction in the fees payable] [performance deductions/penalty points], as applicable.]
- e) [For any amounts that may become due from the Initiator to the Project Company, the Project Company shall render to the Initiator an itemised invoice for any billing period in accordance with the Agreement.]
- f) [In the event that the Initiator disputes any portion of an invoice, the Initiator may refer such dispute for resolution in accordance with the Agreement. In this case, the Initiator shall pay any undisputed amounts and continue to make payments, and any disputed amounts shall be paid to a separate joint interest-bearing account, pending resolution of such dispute.]

Note: This section provides a starting point only and must be customised to the Project's specific requirements, as set out in the Business Case.

Payment Default

If either party is in default in making any payment based on the Agreement, the defaulting party shall pay to the other party, interest on the unpaid amount at the late payment interest rate from the day when such amount becomes due and payable until the day such amount is paid.

Performance Security

[●], in a form and from a bank acceptable to the Initiator, which shall be forfeited by the Project Company to the Initiator in the event that the Effective Date does not occur within the time period provided or as otherwise may be provided in the Agreement.

Note: Amount and form of security / guarantee / bond to be described here. The transaction advisory team should advise on an appropriate amount and form of performance security.

Insurance

The Project Company, at its sole cost and expense, shall obtain and maintain the policies of insurance described in the Agreement, in the amounts, on the terms and during the period mentioned therein.

Note: Insurance advice regarding minimum insurance should be sought for inclusion in the Agreement.

Indemnity and Liability

Project Company:

- a) The Project Company will bear the responsibility for any claim against the Initiator in respect of loss of or damage to property, death or injury to any person and all expenses relating thereto or the ownership, operation or maintenance of the Project and resulting from any willful misconduct or negligent act or omission of the Project Company, its employees or subcontractors, without recourse to the Initiator.
- b) The Project Company will fully indemnify and hold the Initiator (together with the Initiator's employees, directors and commissioners) fully indemnified in respect thereof.
- c) The indemnity from the Project Company shall not extend to and the Initiator hereby waives any claims against the Project Company for and indemnifies the Project Company against (a) any such loss, damage, death or injury suffered by the Initiator or its employees, directors or commissioners, or (b) any such claim, to the extent that it was caused by any act or omission of the Initiator or its employees, directors or commissioners, or the failure of the Initiator or any such party to take reasonable steps in mitigation thereof.

Initiator:

- a) The Initiator will bear the responsibility for any claim against the Project Company in respect of loss of or damage to property, death or injury to person and all expenses relating thereto or the ownership, operation or maintenance of the Project and resulting from the any willful misconduct or negligent act or omission of the Initiator its employees or subcontractors, without recourse to the Project Company.
- b) The Initiator will fully indemnify and hold the Project Company (together with the Project Company's employees, directors and commissioners) fully indemnified in respect thereof.

The indemnity from the Initiator shall not extend to and the Project Company hereby waives any claims against the Initiator for and indemnifies the Initiator against (a) any such loss, damage, death or injury suffered by the Initiator or its employees, directors or commissioners, or (b) any such claim to the extent that it was caused by any act or omission of the Project Company or its employees, directors or commissioners, or the failure of the Project Company or any such party to take reasonable steps in mitigation thereof.

Environmental Liabilities

[The Project Company will use GIIP in relation to the Project and will be responsible for all environmental liabilities arising out of the performance of the Project and the component under its responsibility including noise. The Agreement and dedicated annex to the Agreement will detail environmental and social requirements. Any pre-existing impact is responsibility of the Initiator (e.g. existing contamination)]

Project Company Remediable Event

Occurrence of a material breach or default in respect of the Project Company's obligations under the Agreement (other than a Project Company Non-Remediable Event) after the relevant grace period has expired, as may be more specifically detailed in the Agreement.

Project Company Non-Remediable Event

Occurrence of any of the following events:

- a) The Project Company abandons the Project;
- b) the passing of a resolution for the bankruptcy, insolvency, winding up, liquidation of, or other similar proceeding relating to the Project Company;

- c) the appointment of a trustee, liquidator, custodian, provisional manager or similar person in a proceeding referred to in point (a), which appointment has not been set aside or stayed within sixty (60) days of such appointment;
- d) the making by a court having jurisdiction of an order winding up or otherwise confirming the bankruptcy or insolvency of the Project Company, which order has not been set aside or stayed within sixty (60) days; or

after a Project Company Remediable Event shall have occurred and a remedial notice has been given by the Initiator to the Project Company and the Project Company Remediable Event has not been remedied by the Project Company, or waived by the Initiator, within the time period specified in the Agreement.

Initiator Remediable Event

Occurrence of a material breach or default in respect of the Initiator's obligations under the Agreement (other than an Initiator Non-Remediable Event) after the relevant grace period has expired, as may be more specifically detailed in the Agreement.

Initiator Non-Remediable Event

Occurrence of any of the following events:

- a) The dissolution, merger, consolidation, amalgamation, reorganisation, reconstruction or privatisation of the Initiator, except to the extent that it does not affect the ability of the resulting entity to perform its obligations under the Agreement; or

after an Initiator Remediable Event shall have occurred and a remedial notice has been given by the Initiator to the Project Company and the Project Company Remediable Event has not been remedied by the Project Company, or waived by the Initiator, within the time period specified in the Agreement.

Event of Force Majeure

Events of Force Majeure means any event or circumstance or combination of events or circumstances:

- a) beyond the reasonable control of the party affected by such event, circumstance or combination of events or circumstances (the **Affected Party**);
- b) which was not foreseeable or, if foreseeable, could not have been prevented or avoided or overcome by the Affected Party having taken all reasonable precautions and due care;
- c) which directly causes the Affected Party to be unable to comply with all or a material part of its obligations under the Agreement; and
- d) which is not the direct result of a breach by the Affected Party of its obligations under the Agreement or, in respect of the Project Company, under any other Project Agreement.

Force Majeure Events include but are not limited to the following circumstances, provided that they meet the criteria set forth above:

- a) plague, epidemic and natural disaster, such as but not limited to, storm, cyclone, typhoon, hurricane, tornado, blizzard, earthquake, volcanic activity, landslide, tsunami, flood, lightning, drought;

[Note: Plague and epidemics are becoming increasingly difficult to insure and some bidders may request that these be treated as Material Adverse Government Action]

- b) fire, explosion, or chemical contamination (other than a fire, explosion, or chemical contamination caused by the negligence of the Project Company, its contractors, or any subcontractor, supplier or vendor);

c) war (whether declared or not), armed conflict (including but not limited to hostile attack, blockade, military embargo), riots, invasion, act of a foreign enemy, act of terrorism, sabotage or piracy;

d) radioactive contamination or ionizing radiation, occurring outside the [●]; or

general labour disturbances such as boycotts, strikes and lock-out, go-slow, occupation of factories and premises, excluding similar events which are unique to the Agreement and specific to the Project Company or to its subcontractors.

Relief from Force Majeure Events

If a Force Majeure Event has occurred, the Affected Party shall be entitled to relief from its obligations under the Agreement if it meets the requirements below.

To obtain relief above, the Affected Party must:

- a) as soon as practicable, and in any event within [seven (7) business] days after it became aware that the Force Majeure Event has caused or is likely to cause breach of an obligation under the Agreement, give to the other party a notice of its claim for relief from its obligations under the Agreement, including (i) satisfactory evidence of the existence of the Force Majeure Event, (ii) full details of the nature of the Force Majeure Event, (iii) the date of occurrence; (iv) its likely duration; and (v) details of the measures taken to mitigate against the Force Majeure Event.
- b) within [seven (7) business] days of receipt of the notice referred to in clause (a) above, give to the other party full details of the relief claimed, as well as information on all actions being taken by the Affected Party to mitigate the consequences of the Force Majeure Event; and
- c) demonstrate to the other party that:
 - the Affected Party, and its contractors, could not have avoided such occurrence or consequences by steps which they might reasonably be expected to have taken, without incurring material cost;
 - the Force Majeure Event directly caused the need for the relief claimed;
 - the relief claimed could not reasonably be expected to be mitigated by the Affected Party without incurring material cost; and
 - the Affected Party is using all reasonable endeavours to prevent and mitigate the consequences of the Force Majeure Event of its obligations under the Agreement.

If the Affected Party has complied with its obligations above, then it shall be excused from the performance of its obligations under the Agreement to the extent it is prevented, hindered or delayed in such performance by reason of the Force Majeure Event. If information required under the clauses above is provided after the dates referred to in that clause, then the Affected Party shall not be entitled to any relief during the period for which the provision of information is delayed.

The Affected Party shall notify the other party as soon as practicable after the Force Majeure Event ceases or no longer causes the Affected Party to be unable to comply with its obligations under the Agreement. Following such notification, the Agreement shall continue to be performed on the terms existing immediately prior to the occurrence of the Force Majeure Event.

Material Adverse Government Action

For the purposes of the Agreement, a Material Adverse Government Action means any act or omission by the Initiator or any relevant public authority, which occurs during the term of the Agreement and which (i) renders the Project Company unable to comply with all or a material part of its obligations under the Agreement; and/or (ii) has a material adverse effect on the cost or the profits arising from such compliance/performance. Material Adverse Government Action shall mean and be limited to the following circumstances, to the extent that they meet the requirements set forth above:

- a) failure of any relevant public authority to grant to the Project Company, or renew, any permit or approval that is required for the purposes of the Project Company's proper performance of its obligations and enforcement of its rights under the Agreement, in each case within the required timeframe under Applicable Law, except where such failure results from the Project Company's non-compliance with Applicable Law;
- b) expropriation, compulsory acquisition or nationalization by any relevant authority of any material asset or right of the Project Company, including any of the shares in the Project Company;
- c) any act or omission of any relevant authority of the [●] adversely affecting the legality, validity, binding nature or enforceability of the Agreement
- d) any act or omission of any relevant authority of the [●] which adversely impacts on the financial performance of the Project Company; or

any action or failure to act without justifiable cause by any relevant public authority

Consequences of a Material Adverse Government Action

If a Material Adverse Government Action occurs, the Project Company shall be excused from the performance of its obligations under the Agreement to the extent that it is prevented, hindered or delayed in the performance of such obligations by reason of the Material Adverse Government Action, and in some circumstances may be entitled to compensation under the Agreement, in each case subject to and in accordance with the provisions of the Agreement.

To obtain relief and/or claim compensation, the Project Company must:

- a) as soon as practicable, and in any event within [seven (7) business] days after the Project Company becomes aware that the Material Adverse Government Action has occurred, give to the Initiator a notice of its claim for payment of compensation and/or relief from its obligations under the Agreement, following which the parties shall meet and discuss in good faith to consider any option to mitigate the impact of the Material Adverse Government Action;
- b) within [seven (7) business] days of receipt by the Initiator of the notice referred in clause (a) above, give full details of (i) the Material Adverse Government Action; and (ii) any Estimated Change in Project Costs and/or loss of revenue claimed and/or delay and/or any breach of the Project Company's obligations under the Agreement; and
- c) demonstrate to the Initiator that: (i) the Project Company could not avoid such occurrence or consequences by actions which it might reasonably be expected to have taken without incurring material costs; (ii) the Material Adverse Government Action was the direct cause of the Estimated Change in Project Costs and/or loss of revenue and/or delay and/or breach of the Project Company's obligations under the Agreement; (iii) the Estimated Change in Project Costs, and/or loss of revenue and/or relief from the obligations under the Agreement claimed, could not be mitigated or recovered by the Project Company; and (iv) the Project Company is using all reasonable endeavours to perform its obligations under the Agreement.

If the Project Company has complied with its obligations above, then the Initiator shall:

- a) compensate the Project Company for the actual Estimated Change in Project Costs and/or loss of revenue as adjusted to reflect the actual costs reasonably incurred; and
- b) give the Project Company such relief from its obligations under the Agreement as is reasonable for such Material Adverse Government Action.

In the event that information is provided after the dates referred to above, then the Project Company shall not be entitled to any compensation or relief from its obligations under the Agreement in respect of the period for which the provision of information is delayed.

If the Initiator and the Project Company cannot agree on the extent of any compensation or relief from the Project Company's obligations under the Agreement, or the Initiator disagrees that a Material Adverse Government Action has occurred, the parties shall resolve the matter in accordance with the Agreement.

Qualifying Change in Law

Qualifying Change in Law includes the following:

- c) a Discriminatory Change in Law;
- d) [a Specific Change in Law;] or
- e) [a General Change in Law which comes into effect during the Term and which involves additional expenditure at or above any amount required the Agreement.]

Note: SOE may not want to provide relief for Specific and General Changes in Law, and this might be an appropriate position depending on specific circumstances of the transaction. A decision on this risk allocation would need to be done on a case-by-case basis including with regards to the general economics of the transaction.

Applicable Law mean all laws, statutes, orders, decrees, resolution, injunctions, licenses, permits, approvals, ordinance, rule, order, treaty, code or regulation as enacted, issued or promulgated by any Governmental Instrumentality including amendments, modifications, exclusions or re-enactments thereof.

Change in Law means, after the date on which the successful bidder submitted its bid, any of the following events:

- a) the enactment of any new Applicable Law;
- b) the repeal, modification or re-enactment of any existing Applicable Law;
- c) a change in the interpretation or application of any Applicable Law;
- d) the imposition by any government entity of any material condition in connection with the issuance, renewal or modification, or the revocation or non-renewal (other than in accordance with the existing Applicable Law) of any approval consents, permits, licenses and approvals; or
- e) the imposition or levying of any taxes on the Project Company or the increase or decrease in the rate or classification of any taxes.

Discriminatory Change in Law means a Change in Law, the terms of which apply expressly to:

- a) the Project and not to similar projects; and/or
- b) the Project Company and not to other persons.

General Change in Law means a Change in Law which is not a Discriminatory Change in Law or a Specific Change in Law.

Governmental Instrumentality shall mean the Government of the [●] and any ministry, department, political subdivision, instrumentality, or agency of the [●], in each case whether central, provincial or regional government level but only within the [●] and any successor to or assignee of any of the foregoing.

Specific Change in Law means any Change in Law which specifically refers to the provision of services the same as or similar to the services provided in the course of the Project.

Consequences of Qualifying Change in Law

If a Qualifying Change in Law occurs or is shortly to occur, then any party may, within [thirty (30) business] days starting from the day it became aware (or should have been aware) of the Qualifying Change in Law, notify the other party to express an opinion on its likely effects, giving details of its opinion of:

- a) any necessary change required to the obligations of the Project Company;
- b) whether any changes are required to the terms of the Agreement to deal with the Qualifying Change in Law;
- c) whether relief from compliance with obligations is required, including the obligation of the Project Company to achieve any contractual deadline and/or meet any contractual performance requirement during the implementation of any relevant Qualifying Change in Law;
- d) any (positive or negative) change of revenue that will result from the relevant Qualifying Change in Law;
- e) any (positive or negative) estimated change in the costs of the Project that will directly result from the Qualifying Change in Law; and
- f) any capital expenditure that is required or will no longer be required as a result of a Qualifying Change in Law.

As soon as practicable and in any event within [thirty (30) business] days after receipt of any notice from the affected party, the Initiator and the Project Company shall discuss and agree the issues referred to above and any ways in which either party can, if applicable, mitigate the effect of the Qualifying Change in Law, including, in relation to the Project Company:

- a) providing evidence that the Project Company has used reasonable endeavours (including (where practicable) the use of competitive quotes) to oblige its sub-contractors to minimize any increase in costs and maximise any reduction in costs;
- b) demonstrating how any expenditure to be incurred or avoided is being measured in a cost-effective manner, including showing that when such expenditure is incurred or would have been incurred, Changes in Law at that time have been taken into account by the Project Company;
- c) giving evidence as to how the Qualifying Change in Law has affected prices charged by any similar businesses to the Project; and
- d) demonstrating that any expenditure that has been avoided, which was anticipated to be incurred to replace or maintain the contractual obligations of the Project Company that have been affected by the Qualifying Change in Law concerned, has been taken into account in the amount which in its opinion has resulted or is required under clauses (e) or (f) above, provided that if the parties cannot agree on the effects of the Qualifying Change in Law, the matter shall be referred for determination in accordance the Agreement.

If the parties have followed the procedure set out above, then:

- a) the affected party shall be excused from the performance of its obligations under the Agreement to the extent it is prevented, hindered or delayed in such performance by reason of the Qualifying Change in Law;
- b) if the Qualifying Change in Law has occurred before the [Closing Date], the scheduled [Closing Date] shall be postponed taking into account the effect of such Qualifying Change in Law; and
- c) the parties shall agree on the amount and payment of any compensation to reflect the actual Estimated Change in Project Costs as adjusted to take into account the actual costs or gains reasonably incurred or obtained further to the Qualifying Change in Law, provided that no compensation shall be

made in relation to a Qualifying Change in Law under this clause unless the Project Company can demonstrate that the aggregate impact of all Qualifying Change in Laws that have occurred [during the year during which the Qualifying Change in Law in respect of which compensation is claimed occurs / in aggregate] exceed [●].

In the event that the notice and relevant information are not provided within the periods referred to above, the affected party shall not be entitled to any compensation or relief from its obligations under the Agreement in respect of the period for which the provision of information is delayed.

Termination

Termination due to failure to achieve Effective Date [or Closing Date]

In the event that the Effective Date does not occur within the time period specified in the Agreement and such period has not been extended, the Initiator may terminate the Agreement in its sole and absolute discretion on notice to the Project Company and retain any performance security provided under the Agreement.

Termination due to Project Company Non-Remediable Event or Initiator Non-Remediable Event

Upon the determination that a Project Company Non-Remediable Event or an Initiator Non-Remediable Event has occurred, the following procedure shall apply:

- a) The party which is not the subject of such event may give a notice (**Termination Notice**) to the other party, specifying in reasonable detail the Project Company Non-Remediable Event or Initiator Non-Remediable Event, as the case may be, giving rise to such Termination Notice, and the date on which the party giving such Termination Notice proposes to terminate the Agreement, which date shall not be less than [thirty (30)] days after the date of such notice;
- b) During the period of [thirty (30)] days (or such longer period set forth in the Termination Notice or as the parties may agree) following the giving of such Termination Notice, the parties shall consult as to what steps shall be taken with a view to mitigating or remedying the consequences of the relevant event having regard to all the circumstances;
- c) If the party receiving the Termination Notice intends to raise a Dispute regarding the right to give effect to the Termination Notice and/or to refer such Dispute to an expert or to arbitration in accordance with the Agreement, such party shall within [fifteen (15)] days of receipt of the Termination Notice so inform the party giving the Termination Notice and shall immediately refer to an expert the question of whether the party receiving the Termination Notice has a reasonable basis to dispute the other party's right to give effect to the Termination Notice, which reference shall instruct the expert to render such determination not later than [thirty (30)] days after the appointment of such expert; and
- d) at the expiry of the period referred to above the Agreement shall be terminated and the Project Company shall be entitled to the compensation set out in the Agreement.

Termination due to Prolonged Force Majeure

If a Force Majeure Event subsists for a continuous period of more than [180-360 calendar] days, which prevents the Project Company from complying with its obligations under the Agreement, either party may in its discretion terminate the Agreement by issuing a written termination notice to the other party which shall take effect [thirty (30) calendar] days after the receipt of the termination notice by the other party.

If, at the end of this [thirty (30)]-day period, the Force Majeure Event continues, the Agreement shall be terminated, and the Project Company shall be entitled to the compensation set out in the Agreement.

Termination due to Prolonged Material Adverse Governmental Action

If a Material Adverse Government Action subsists for a continuous period of more than [180-360 calendar] days, which prevents the Project Company from complying with its obligations under the Agreement, either

party may in its discretion terminate the Agreement by issuing a written termination notice to the other party which shall take effect [thirty (30) calendar] days after the receipt of the termination notice by the other party.

If, at the end of this [thirty (30)]-day period, the Material Adverse Government Action continues, the Agreement shall be terminated, and the Project Company shall be entitled to the compensation set out under the Agreement.

Termination due to a Qualifying Change in Law

If a Qualifying Change in Law:

- a) results in the Project Company not being able to achieve the [Closing Date] within [●] months after the scheduled [Closing Date]; or
- b) prevents a party from performing its material obligations under the Agreement for a period of [●] consecutive days,

either party may in its discretion terminate the Agreement by issuing a written termination notice to the other party which shall take effect [thirty (30) calendar] days after the receipt of the termination notice by the other party.

If, at the end of this [thirty (30)]-day period, the Qualifying Change in Law continues, the Agreement shall be terminated, and the Project Company shall be entitled to the compensation set out under the Agreement.

Consequences of Termination

In the event of termination of the Agreement due to failure to achieve the [Effective Date] [or the Closing Date], the Initiator shall be entitled to payment under the terms of any performance bonds or guarantees in favour of the Initiator.

In the event of termination of the Agreement due to either of an Initiator Non-Remediable Event, a Project Company Non-Remediable Event, a Force Majeure Event, a Material Adverse Government Action or a Qualifying Change in Law:

- a) the Initiator shall purchase the Project or the shares in the Project Company at the purchase price determined in the Agreement for those respective circumstances;
- b) the Project Company shall hand over and transfer to the Initiator the Project, or the shares in the Project Company, for no other consideration, or assumption by the Initiator of any liability in respect thereof, except as expressly provided for in the Agreement; and

the effect on any required performance bonds or guarantees in favour of the Initiator shall be provided in the Agreement.

Note: In principle, the purchase price in the event of a termination due to an Initiator Non-Remediable Event, a Force Majeure Event affecting Initiator, a Material Adverse Government Action or a Qualifying Change in Law should ideally consider the concession fee less financial benefits accrued to the private section till termination.

Initiator Step-in

The Initiator shall have the right to step-in to the Agreement and assume some or all of the obligations of the Project Company in certain circumstances (and for so long as these circumstances are occurring), including:

- a) an emergency;

- b) a serious risk to the environment, the public or users of the Project; or
a serious risk of material damage to public or private property.

Initiator Take Back Option

At any time during the term of the Agreement, the Initiator has the option to take back the Project upon giving notice to the Project Company. The purchase price under the option will be the same as the purchase price paid due to an Initiator Non-Remediable Event.

Financing and Lender Direct Agreement

The Initiator shall provide all documents and other assistance as Project Company and its financiers may reasonably request in connection with any financing relating to the Project. If, following such financiers' review, the financiers require amendments to be made to this Agreement, then the Initiator shall negotiate with Project Company in good faith with regard to such required amendments to this Agreement. The Initiator shall (i) furnish consents to assignment, certifications, representations, estoppel certificates and opinions of counsel and other closing documents and (ii) enter into a direct agreement, in each case as may be reasonably requested by Project Company and its financiers from time to time, and in a form reasonably acceptable to Project Company and its financiers in connection with such financing.

For the purpose of financing relating to the Project, Project Company may assign or create a security interest over its rights, title and interest under or pursuant to this Agreement, the Project, the moveable property and intellectual property, or the revenues or any of the rights or assets of Project Company within the scope of this Agreement.

Dispute Resolution

Mutual Discussions:

If any dispute or disagreement of any kind whatsoever (a **Dispute**) shall arise between the parties in connection with, or arising out of, the Agreement, or the breach, termination or validity hereof, the parties shall attempt for a period of 30 days after the receipt by one party of a written notice from the other party of the existence of the Dispute, to settle such Dispute in the first instance by mutual discussions between the parties.

Referral to an independent expert:

If the dispute is of a technical (e.g. operational) or financial (e.g. accounting) nature, and the parties fail to reach an agreement on such a dispute by mutual discussions within the required 30-day period, then the parties shall appoint an approved independent expert to resolve the dispute between the parties. If the expert does not render a decision within a period of 90 days from completion of the hearing, either party may terminate the appointment of the expert upon given written notice to the party and a new expert shall be appointed in accordance with the process stated above. If the Dispute is not resolved by one or more experts so appointed within a 12-month period from the occurrence of the Dispute, either party may refer the Dispute to arbitration.

Arbitration:

If the Dispute cannot be settled within the 30 day period provided for mutual discussions, and in the case of technical or financial matters referred to an independent expert, the Dispute is not resolved within a 12 month period, the Dispute shall finally be settled by an arbitral tribunal under the rules of the [- *international arbitration institution to be named; ICC or SIAC and a neutral arbitration seat would be appropriate*].

Subcontracting

[The Project Company may subcontract to contractors named in the Agreement. A contractor not named in the Agreement may only be appointed by the Project Company with the written approval of the Initiator.]

Governing Law

The Agreement will be governed by and construed in accordance with the laws of the [●].

Language

The Agreement will be prepared in [●] and English. In the event of any conflict or inconsistency between the English language version and the [●] language version of the Agreement, the English language version shall prevail save to the extent that the [●] language version is required to prevail in accordance with Applicable Law from time to time in effect.

Waiver of Immunity

Each party will unconditionally and irrevocably:

- a) agree that the execution, delivery and performance by it of the Agreement constitutes private and commercial acts, rather than public or governmental acts;
- b) agree that should any legal proceedings be brought against it or its assets in relation to the Agreement, no immunity (sovereign or otherwise) from such legal proceedings shall be claimed by or on behalf of itself or with respect to its assets;
- c) waive any right of immunity (sovereign or otherwise) which it, or any of its assets now has, or may acquire in the future; and

consent generally in respect of the enforcement of any judgment (or arbitral award) against it in any such proceedings to the giving of any relief or the issue of any process in connection with such proceedings including the making, enforcement or execution against it or in respect of property whatsoever (irrespective of its use or intended use) of any order or judgment which may be made or given in such proceedings.

Miscellaneous

The Agreement shall contain market standard boiler plate clauses including the following provisions:

- a) confidentiality undertakings;
- b) notices;
- c) no agency;
- d) waivers;
- e) entire agreement;
- f) severability;
- g) survival provisions;
- h) amendments;
- i) costs; and
- j) counterparts.

Module 6 - Bid Parameters

In assessing bids for an asset recycling transaction, it is important that the Relevant Authority tailor the bid evaluation parameters aligned to meeting the objective of the transaction. To this end, it is important that technical bid parameters be considered so that the preferred bidder is best placed to ensure objectives such as operational efficiencies, meeting the service standards and operational and technological innovations can be realised.

With respect to the financial bid parameter, the amount of concession payment, either in the form of an upfront fee or any recurring fees or a hybrid thereof, should be the main financial bid parameter in assessing an asset recycling transaction.

In addition, the length of the concession period (to be bid by private sector bidders) may be used as another bid parameter.

Financial Bid Parameter

Bid Parameter	Description	Pros	Cons
Concession Payment to the relevant authority, in the form of:			
Upfront Fee	A single lump-sum payment to be made by the Project Company before Effective Date of the Project Agreement	An upfront payment can be directly utilized into re-investment of new infrastructure and is a clear and objective financial bid parameter to evaluate	May discourage private sector to bid if the upfront fee is substantial and not supported by a traffic/demand forecast. A pure upfront fee arrangement (without any revenue sharing arrangements) will entail the relevant authority losing out on any potential upsides if actual traffic exceeds traffic/demand forecast at the time of the Asset Recycling transaction.
Annual Recurring Fee	Payment is made annually by the Project Company either in a form of fixed annual payment or revenue sharing	Will allow the relevant authority to generate a stream of revenue over the terms of concession. This may be more attractive to potential private sector investors as it does not require the financing of the upfront fee, thereby avoiding the incurring of financing costs.	Loss of upfront proceeds to be re-invested to new infrastructure. The lack of any upfront payment may not provide the right incentives to the Private Sector to ensure that the Asset

			<p>is managed and operated optimally as the Private Sector does not stand to lose any capital investment should the Asset not be successful.</p> <p>Higher level of complexity to devise a mechanism to remunerate the relevant authority over the concession terms to ensure that relevant authority achieve an appropriate level of return for granting of the concession or divesting its (partial) interest in the Asset.</p>
Hybrid	A combination of both Upfront Fee and Annual Recurring Fees	<p>The relevant authority will be paid a periodic revenue stream while part of the fees will be paid as an upfront payment that can be applied to be re-invested in the development of new infrastructure.</p> <p>A lower upfront fee may attract more bidders; depending on how the on-going fees are structured.</p> <p>This payment structure can help to rebalance the concession contract by sharing some of the risks with the private operators (reducing the periodic payments in certain events)</p>	Lower level of upfront proceeds to be re-invested to new infrastructure
Other Bid Parameters:			
Concession Period	Evaluation is based on the shortest concession period offered by the private sector until hand back of the Asset to the government.		

Module 7 - Bundling and Unbundling Criteria

Considerations for Multi-Asset Bundling

For an Asset Recycling transaction, the Relevant Authority can consider bundling multiple assets as part of a single Asset Recycling transaction. Key considerations that a relevant authority should consider for bundling are:

Parameter	Considerations for Multi-asset Bundling
Criteria to Consider Bundling	
Value for Money Outcome	Smaller scale Assets may not achieve either value for money outcomes or generate sufficient proceeds for re-investment given the costs involved in preparing an Asset Recycling transaction.
Private Sector Interest in Scale	Asset size and potential should be sufficient to generate market and private sector interest as the private sector will have to mobilize resources for project implementation. Given the costs and commitment involved in bidding for an Asset, private investors such as institutional funds typically set a minimum investment threshold for an Asset to warrant their attention. The potential overall value of the bundled Assets can be tested as part of the initial market sounding.
Investor/ Lender Confidence	Debt and equity financiers generally view bundled projects as more favourable given the higher ticket size. Specifically, for equity investors, this helps to justify committing to higher bidding and resourcing costs.
Multi-asset Synergies	There may be operational synergies (for instance, in cases of road networks or rail networks) in bundling several assets together. This is provided that attributes of the Assets (such as location and specific features of each asset in terms of asset maturity, servicing requirements etc) in the grouping allows for the generation of economies of scale.
Cross-subsidization	There may be opportunities to bundle commercially viable and sub-viable projects wherein the private sector can cross-subsidize the losses.
Risk Diversification	By bundling assets into a single package, diversification can be achieved thereby reducing the overall risk of the transaction.
Efficiencies in Procurement	More efficient procurement and contract administration thus minimising transaction costs and time. Pricing efficiencies enable the relevant authority to lock in the price of several projects in a single procurement.
Criteria to Not Consider Bundling	
Complexities	Bundling of multiple assets under a single concession may lead to additional complexities and risks, for example, operational delays that impact only one of the bundled assets and has an impact on the entire bundled portfolio due to cross-default provisions. Bundling several assets under one concession can introduce complexity, To a certain extent, this can be managed by introducing greater level of standardisation.

Reduces
Competition

Depending on the size of the transaction (i.e., number of bundled assets), bundling may reduce the pool of bidders, thus reducing competition. Conversely, if the relevant authority can optimise the size of the transaction, bundling of assets may increase competition.

Module 8 - Climate Finance

Climate finance has a central role in enabling sustainable transitions to a low-carbon, climate resilient future and asset recycling transactions may benefit from this alternative source of financing. This module provides key guidance for both public sector project owners (in charge of structuring and tendering the asset recycling transaction) and the private sector (selected private investors or Concessionaire) for mobilizing climate finance.

Overview of Climate Finance

Defining climate finance

Climate finance broadly refers to resources, from public and private sources, mobilized to facilitate, materialize, or expand activities that support climate change mitigation actions and adaptation efforts. According to the United Nations Framework Convention on Climate Change (UNFCCC), *"climate finance refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change."*

Climate change mitigation refers to actions that seek to reduce or avoid the release of greenhouse gas (GHG) emissions, or to increase the capacity of carbon sinks, thereby helping slow the pace of global warming. Adaptation refers to efforts to enhance or improve the resilience of infrastructure, communities, economies, and ecosystems, and adjust to both the current adverse effects of climate change and the predicted future impacts.

Landscape for climate finance

According to the Global Landscape of Climate Finance 2021 report from the Climate Policy Initiative (CPI), total climate finance reached USD 632 billion in 2019/2020.¹ The public sector accounted for 51% (USD 321 billion) of all 2019/2020 tracked climate finance. Development Finance Institutions (DFIs)² continued to provide most of the public finance, at 68% (USD 219 billion) of all public contributions. State-owned financial institutions and governments contributed nearly all the remainder, accounting for 14% (USD 45 billion) and 12% (USD 38 billion) of all public flows, respectively.

Private finance from private sector actors (including corporations, commercial financial institutions, households, and non-profit and philanthropic organizations), accounted for the remaining USD 310 billion, with commercial financial institutions and corporations together contributing almost 80% (USD 248 billion) of this amount. Households comprised the third largest share of private climate finance, with annual consumer spending on electric vehicles reaching USD 25 billion in 2019/2020.

¹ All figures cited herein related to the flow of climate finance are as per CPI's Global Landscape of Climate Finance 2021: Climate Policy Initiative. 2021. *Global Landscape of Climate Finance 2021*. CPI: 2021. Accessed November 7, 2022. <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>.

² As used herein, a DFI, also referred to as a development bank or development finance company, broadly refers to a specialized financial institution that provides risk capital for economic development projects, often on a non-commercial basis. A DFI is usually majority owned by governments and may be bilateral, for example Germany's KfW Bankengruppe, or multilateral, for example the Asian Development Bank.

Most climate finance, 61% (USD 384 billion) of global tracked investments, was raised as debt (i.e., via debt instruments including bank loans and bond issuances). Market-rate debt accounted for 88% (USD 337 billion) of this total, while 12% (USD 47 billion) was raised as low-cost or concessional debt. Almost 100% of concessional and low-cost project debt was provided by public institutions. Equity investments accounted for 33% (USD 206 billion) of total climate finance. Grants accounted for 6% (USD 36 billion) of all climate finance in 2019/2020, with governments as the main source of grant funding.

Renewable energy accounted for 57% (USD 324 billion) of all finance for mitigation activities, with solar photovoltaic and onshore and offshore wind accounting for over 91% of this amount. Renewable energy projects were primarily financed privately (USD 222 billion), reflecting the sector's growing commercial viability, with an additional USD 101 billion coming from public sources.

Adaptation finance reached USD 46 billion in 2019/2020, reflecting a 53% increase compared to USD 30 billion in 2017/2018. The public sector provided nearly all tracked adaptation financing, with adaptation finance accounting for 14% of total public sector climate finance.

Most climate finance flowed domestically, with about 76% (USD 479 billion) of all tracked climate finance raised and spent within the same country. International flows reached USD 153 billion (24%), driven mainly by increased investment by DFIs. Regionally, East Asia and Pacific, Western Europe, and North America accounted for 75% (USD 474 billion) of global climate investments, with East Asia and Pacific comprising almost half (USD 292 billion) of all tracked investments. Approximately 81% (USD 237 billion) of this amount was concentrated in China. Most climate investment in more economically advanced regions, namely Western Europe, United States, Canada, and Oceania, came from private sources, while other regions primarily relied on public sources.

Advantages and barriers to accessing climate finance

Key advantages of climate finance include expanding the pool of available financing for climate-related projects and opportunities to leverage risk sharing mechanisms to increase viability at the project level. This includes access to dedicated funds (international and in some cases national), multilateral and bilateral development institutions, and strategic private investors (such as pension funds), as well as non-governmental and philanthropic organizations that are committed to investing in climate mitigation and adaptation efforts. In addition, for some activities or interventions, more favourable funding and financing instruments, such as, grants, seed funding, and concessional loans, may be available.

Government resources alone cannot provide the amount of finance needed for the climate transition, making unlocking private sector capital fundamental to achieving transformational and long-term impacts across all economies. Climate finance can play a catalytic role in mobilizing private investments in mitigation and adaptation activities and aligning public and private investment incentives. The combination of traditional investments with innovative financing instruments is increasingly gaining traction, with larger climate finance sources expecting to leverage more private investments alongside public finance.

The private sector is also exposed to various climate-related risks that may prompt action and investment. These risks range from economy-wide risks to entire sectors or industries, to

company- and asset-specific risks. Adverse impacts can be direct, including damage to infrastructure and disruption of production processes, and indirect, through disruption to supply chains and changes in regulations, product demand, and business reputation. Climate finance accelerates investments that reduce vulnerability to these risks.

At the same time, seeking climate finance requires additional time and expense, both to prepare a climate finance proposal on the front end and then monitor and report on results on the back end. The level of effort can be substantial, particularly if the climate impacts are difficult to quantify and evaluate. It also tends to increase overall transaction costs, as time and resources must be devoted to identifying and applying to an appropriate climate financier, including obtaining any required certifications and/or accreditations. Accessing climate finance can be a complex process, in some cases involving multiple layers of governance and institutional arrangements (at the domestic and/or international level), public and private actors and institutions, and an array of financial instruments that may be mobilized to deliver the funds.

Climate change mitigation and adaptation projects may have different financial characteristics and face distinctive financing challenges. Some common barriers to accessing climate finance include:

- The time and cost associated with understanding the specific requirements and criteria of climate investors and submitting specific project proposals and supporting technical documents that satisfy investor criteria.
- The time and cost associated with gathering and processing climate-related data and information (for example, weather data covering wind, sun radiation, and precipitation; information on the nature, likelihood, and intensity of meteorological and hydrological implications of climate change).
- Uncertainty over, or unfamiliarity with, the use of new technologies, new project types, and innovative transaction structures.
- Uncertainty over methodological issues for evaluating climate-related benefits, for example how to calculate energy savings from investments in energy efficiency.
- Absence of domestic enabling conditions for climate finance, for example the availability of reliable third-party verifiers and legal frameworks for defining and certifying green financing instruments and projects.
- Absence of, or insufficient, carbon pricing schemes or feed in tariffs that would level the playing field with more emissions-intensive alternatives.
- Immature or underdeveloped financial markets.
- Political and regulatory risks.
- Macroeconomic volatility (fluctuations in exchange rate, inflation, interest rates, etc.).

There are, however, dedicated funding sources and Project Preparation Facilities that support institutions that lack adequate in-house capacity to access climate finance. These funds support the project development process (for example, by providing funding to procure third-party specialists/consultants to complete necessary studies) and related activities, including technical assistance and capacity building, preparation of climate finance proposals, and improving the enabling conditions set by the government for the effective deployment of climate finance.

Sources of Climate Finance

There are a wide variety of climate finance sources, with different financiers having different focuses, objectives, criteria, and processes. These sources offer a range of flexible financial instruments, enabling them to respond to specific investment contexts and market barriers.

These sources often have the ability to partner with the business world to mobilise institutional investors at scale to fund climate action, and to encourage the development of the local private sector in emerging markets and developing economies to deliver climate solutions. As climate change impacts continue to create greater challenges and threats, more stakeholders are mobilizing to invest in and contribute to the various dedicated climate funds, carbon funds, financing channels, and other funding mechanisms that are available to support actions to mitigate and efforts to adapt to climate change. On one end of the spectrum are purely private, purely commercial investors, which are motivated primarily by the expected risk-adjusted rate of return on their investment. This type of market-driven investment is virtually indistinguishable from commercial lending for any other type of project, as in the case of bank loans for financially viable renewable energy projects. From the lender's perspective, the climate impacts may be viewed as an added benefit, but they are not the principal driver of the decision to invest. On the other end of the spectrum are non-profit investors, including non-governmental and philanthropic organizations, which may provide grant funding for climate activities with little or no expectation of realizing a financial return. In between are an array of public and private financiers that place varying degrees of emphasis on achieving climate outcomes versus realizing financial returns.

Different climate financiers, mechanisms and funds have specific operational modalities and differing requirements, which should be assessed prior to determining whether to seek climate finance. Access, eligibility criteria, and monitoring, reporting and evaluation frameworks currently differ considerably across the myriad climate finance sources. The proliferation of approaches and criteria entails time, effort, and money for the actors involved and more harmonization and coordination in this area is needed. When deciding whether to pursue climate finance, practitioners need to weigh the additional transaction costs against the likely availability of the desired financing and its key characteristics, including terms, pricing, and conditions, among others. The likelihood of accessing any specific climate finance source will vary and depend on the specific aspects of the asset recycling transaction (such as sector, project size, availability of co-financing, and risks), as well as the desired financial instrument. Some of the key, early-stage criteria for assessing the likelihood of accessing climate finance are set forth in the section "Transaction characteristics and amount: financing needs" 0, below.

Different climate finance sources have diverse focuses and criteria that bear on the kinds of project activities they will finance. A few of the more common characteristics to consider include:

- **Thematic area focus:** Some financiers may support only mitigation actions or only adaptation efforts, though most of the largest sources finance both.
- **Results area focus:** Some financiers lend only to specific sectoral activities, for example energy generation and access (renewable energy and energy efficiency), transport, forest and land use, agriculture, health, food and water security, or for activities that engender specific outcomes, for example ecosystem services, biodiversity, land degradation, and disaster risk reduction.
- **Geographic focus:** This includes, for example, dedicated funds that invest only in specific countries and/or regions, or to specific groups of countries (for example, Small Island Developing States or Least Developed Countries).
- **Borrower focus:** Some sources only lend to public sector actors, some only private, and some preference public-private partnership (PPP) projects.
- **Direct lenders versus intermediaries:** Some sources lend and accept proposals at the project level (i.e., direct access), while others invest through public or private funds or

bodies (at the national level or via DFIs) that in turn invest in projects and programs (i.e., intermediaries).

- **Types of support:** Some financiers may support project or program preparation or delivery, while others focus on technical assistance and capacity building to improve the overall enabling environment for accessing climate finance.³

While the divergent sources of climate finance can seem daunting, by understanding the typical motivations of different categories of sources, practitioners can better assess the likelihood that any given project may be able to obtain climate finance and on what terms.

Public Sources

Traditionally, public sources have been the main source of capital available for climate finance, including financial resources from multilateral and bilateral DFIs, other types of multilateral and bilateral organizations and aid agencies, governments, and dedicated climate funds.

Bilateral sources and channels: Bilateral financial institutions (BFIs) are institutions, agencies, or funds primarily belonging to or governed by individual countries. This includes bilateral DFIs and development cooperation agencies of individual countries. These institutions are capitalized through the public budget of the donor country, supplemented by own-source funds and funds raised on global capital markets. Examples of bilateral channels for climate finance include Germany's International Climate Initiative (IKI), the United Kingdom's International Climate Finance (ICF) commitment, Germany's Global Climate Partnership Fund (GCPF), and Norway's International Climate and Forest Initiative (NICFI), among many others.

Multilateral sources and channels: Multilateral financial institutions and funds have several governing members, including both borrowing developing countries and developed donor countries. This includes multilateral development banks (MDBs), which may be global (for example, the World Bank Group) or regional (for example, the Inter-American Development Bank, the Development Bank of Latin America, and the Asian Infrastructure Investment Bank) in focus, as well as other regional institutions and United Nations (UN) agencies. Funds for these multilateral institutions are raised from a variety of sources and donors, including capitalization from member governments, fees for services, and income from different financial instruments such as concessional and non-concessional loans, among others.

Climate Funds: Sometimes referred to as carbon funds, these are dedicated, climate-specific funds, often multi-donor, set up and managed by national, bilateral, and multilateral organizations that usually provide trustee and administrative services. These funds may have a specific thematic focus, such as climate change mitigation and adaptation, and specific sectoral focuses, such as transport, energy, forestry, or land use, among others. In addition to money pledged from donors, many of these funds leverage significant sums of finance, frequently from DFIs and by de-risking investments to mobilize additional private finance. Multilateral climate funds play a key role in supporting developing countries to adopt low-carbon, climate resilient development pathways as well as adapt to the impacts of climate change. Examples of climate funds include: (i) Global donor funds established by UN agencies, such as the Global Environment Fund (GEF), the Climate Investment Funds (CIF), and the Green Climate Fund (GCF); (ii) other global donor funds, such as the Global Energy Efficiency and Renewable Energy Fund (GEEREF); and (iii) regional and national climate funds and channels, such as those established by several developing countries, with a

³ See, for example, Buchner, Barbara, et al. 2013. *The Role of National Development Banks in Catalyzing International Climate Finance*. Inter-American Development Bank: Washington, D.C. 2013. Accessed November 7, 2022. <https://publications.iadb.org/en/role-national-development-banks-catalyzing-international-climate-finance>.

variety of forms and functions, resourced through international finance and/or domestic budget allocations as well as the domestic private sector. The Indonesian Climate Change Trust Fund was one of the first of these institutions to be established.

Private Sources

As the cost of mitigating and adapting to climate change increasingly outweighs the amount of public funding and financing available, there is a global need to close the financial gap by mobilizing more private investment to ensure transformational and long-term impacts across all economies. The sources of private finance include funds and savings of individuals and corporations (which are often managed, pooled, and/or invested through intermediaries such as commercial financial institutions, portfolio management firms, asset management companies, and/or pension funds), institutional investors, asset managers, corporate actors, institutional funds, philanthropic organizations, and non-profit organizations, among others.

In many cases, the primary motive of private climate investors is to realize a risk-adjusted rate of return on their investment, as well as co-benefits such as sustainable development, gender-related, or social outcomes, which may be explicitly or implicitly included in their mandate as related filters for investment decisions. Nonetheless, private sources vary in their risk appetites and objectives. Some of the general categories of private finance sources are summarized, as follows.

- **Traditional commercial investors:** These types of traditional financiers make investments primarily to generate financial returns and, as noted above, comprise the largest share of private sector climate finance. This category includes private equity firms, commercial banks, bond issuances, and other common and established sources of commercial finance. As compared to other categories of private investors, discussed below, these investors generally target more proven, less risky projects that promise a commercially viable rate of return, meaning financing is priced on market terms. Large-scale infrastructure projects usually require special purpose vehicles (SPVs) to attract project finance through project loans, private equity, or project bonds. Large commercial banks and infrastructure funds (often capitalised by institutional investors) are among the main actors that provide private sector financing for infrastructure.
- **Angel investors/venture capitalists:** Private investors that target earlier stage, higher risk projects with a relatively high rate of failure. Due to the high expectation of failure, however, these investors expect a correspondingly high return on investment for those projects that succeed.
- **Impact investors:** Impact investing is an approach to investing that aims to generate both financial returns and achieve positive environmental and/or social impacts. Impact investors play an important role because they inhabit a unique space between private investors, which tend to expect a relatively high risk-adjusted return, and public and philanthropic investors, which can absorb more risk and expect less return. While impact investors need some return on investment to maintain financial sustainability, their return expectations may be more flexible, especially if they are seeing significant environmental and/or social impacts from their investments.
- **Philanthropic investors:** Donor-based organizations that are motivated to make investments predominantly to generate positive social and/or environmental impacts and by achieving maximum impact in terms of climate-related outcomes, with relatively less or no financial return on invested funds.

Blended Finance

Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development. Blended finance refers to the use of both public and private financing for projects that contribute to low carbon, climate resilient interventions and achieving sustainable development outcomes, but where actual or perceived risks are too high for commercial lenders to bear on their own. Blended finance attracts commercial capital to projects that contribute to sustainable development, while mitigating risk and helping ensure adequate financial returns to investors. Public financing is used to reduce investment risks for the private sector and to reduce the cost of financing. To this end, blended finance aims to: (i) finance projects that would otherwise not be financed by pooling of resources; and (ii) ensure a high leverage effect on limited public resources. Blended finance can play an essential role in unlocking, scaling up, and channelling commercial finance towards sustainable development in developing countries. Similarly, public co-financing can be key to unlocking climate finance from the private sector by taking on certain risks that the private sector will not bear, such as technological risk where projects rely on new or relatively untested technologies that, if successful, have the potential to be transformative.

Blended finance is not an approach to investing but an approach to structuring transactions in a way that brings in multiple types of investors. Blended finance makes it possible, for example, for a government agency, a private equity investor, and an impact investor to all invest alongside each other while achieving their own objectives. Impact investors often, but not always, invest in blended finance transactions alongside other kinds of capital. Similarly, climate funds and DFIs are increasingly seeking to co-finance projects alongside private investors, to increase flows of private capital into projects that support sustainable development and increase the development impact of every public dollar invested. Accordingly, the financial leverage ratio, here referring to the amount of private capital mobilized as compared to the amount of public investment, is an increasingly important criteria for many of these climate finance sources.

However, it can be difficult for different public, private, and non-profit groups to collaborate in existing structures, particularly across borders.⁴ In addition, preparation costs associated with blended financing can be high, making it more challenging, particularly for small projects. These challenges, coupled with the overall inadequacy of concessional finance resources relative to climate investment needs, have contributed to a decline in blended finance projects in recent years. Specifically, the USD 14 billion in tracked blended finance deals 2019-2021 reflects a steep drop from \$36.5 billion in the previous three-year period.⁵ Accordingly, more must be done to improve coordination between the public and private sectors to realize the significant leverage potential promised by blended finance transaction structures.

Financing Instruments

Climate finance is, first and foremost, finance, so the available instruments are the typical financial instruments that may be used for any type of financial transaction. In other words, what makes an investment climate aligned is not the nature of the instrument used, but the fact that

⁴ Tett, Gilian. 2022. "The flood of green finance must be diverted from the west." *Financial Times*, October 27. Accessed November 8, 2022. <https://on.ft.com/3TKb8Rq>.

⁵ Gold, Shabtai. 2022. "Blended finance for climate fell 60% despite calls for more funds." *Devex*, October 26. Accessed November 8, 2022. <https://www.devex.com/news/blended-finance-for-climate-fell-60-despite-calls-for-more-funds-104317>.

the investment supports interventions that contribute to climate change mitigation action and adaptation efforts.

Accordingly, the four (4) main categories of financial instruments to be utilized by an asset recycling transaction for climate finance are the typical financial instruments available for any type of financial transaction, namely:

- I. debt instruments;
- II. equity instruments;
- III. credit enhancement instruments; and,
- IV. risk transfer instruments.

The difference between a typical financial instrument and a climate finance instrument is that funds raised under climate finance sources are ring-fenced for the purpose of achieving the specific climate-related objective, project, or physical asset.

The following table lists the types of financial instruments that can be utilized for climate finance, the definition of each financial instrument, and related examples of climate finance providers from public and private sources.

Financial Instruments		Definition	Finance provider from Public or Private sources
Debt instruments	Non-concessional loans	Loans that are provided at a market rate of interest for climate change activities.	Commercial banks, corporate
	Concessional loans	Loans provided for the purpose of addressing climate change/sustainable objectives, characterized by longer repayment terms, lower interest rates and extended grace periods.	Governments, DFIs, Climate Funds
	Grants	Sum of money that is given for climate change activities but does not need to be repaid. They are usually allocated to support early-stage activities of a project such as the development of a project concept, or for specific capacity building activities.	Climate Funds, Governments, DFIs, public and private institutions (including philanthropic)
	Debt swaps	Sale of a foreign currency debt to an investor or debt forgiveness by the creditor, in exchange for the debt relief being invested in climate change related activities.	Governments, public and private investors
	Green, social, and sustainable bonds) (also known as	Debt instruments where proceeds are used to finance or refinance, in part or in full, new and/or existing eligible projects/assets/companies that	Public governments (national, sub-national or municipal) and private investors, banks or corporations

	thematic bonds) and sustainability-linked bonds	have climate and/or environmental and/or social and/or sustainable benefits.	
	Microfinance loans	Small-scale financial credits to entrepreneurs, small businesses, and individuals that lack access to traditional banking services for the purpose of addressing climate change.	Microfinance institutions
	Quasi equity	Debt, typically unsecured and subordinated, that raises capital base with no changes to the ownership structure for the purpose of addressing climate change.	Public and private investors
Equity instruments	Equity securities	Ownership interest held by shareholders in an entity—a company (including SPV), partnership (including Joint Venture), or trust—realized in the form of shares of capital stock for the purpose of addressing climate change.	Public and private investors
	Co-financing	Joint financing between two entities working to finance an activity with climate change objectives.	Public and private investors
	Crowdfunding	Funding climate change mitigation or adaptation project activities by raising small amounts of capital from many individuals, typically through an online platform.	Household, companies
Credit enhancement instruments	Interest-rate softening mechanisms	Lower interest rates and other subsidies to reduce financing costs below market rates to finance climate change activities.	Governments, DFIs
	On-lending	Borrowing from external or domestic sources and thereafter passing the loan to another entity for the purpose of addressing climate change.	Governments, DFIs
	Refinancing	Replacement of an existing debt obligation with another debt obligation under different terms for the purpose of addressing climate change.	Commercial banks, Governments, DFIs

	Project bond credit enhancement	Subordinated instrument, either a loan or contingent facility, to support senior project bonds issued by a project company for low carbon projects.	Governments, DFIs
	Subordination of credit trenching excess spread, over collateralization, reserve accounts, etc.	Prioritization of collateralized debts, ranking one behind another for purposes of collecting repayment from a debtor. Subordinated debts are riskier than higher priority loans, transferring risk in the event the results of climate projects are not fully achieved.	Local and national governments
Risk transfer/sharing instruments and mechanisms	Insurance	The creation of risk transfer mechanisms that provide resources for climate-related disasters and transfer loss liabilities to capital market investors.	Insurance companies
	Guarantees	A promise to repay the debt of another, in relation to a climate change activity, in the event of default.	Governments, DFIs
	Results-based climate finance	Funds are disbursed by the donor or investor after pre-agreed results of the climate activity are achieved and verified.	Governments, DFIs
	Risk capital	Funds (equity/concessional loans) allocated to climate mitigation/adaptation activity with high level of uncertainty.	Governments, DFIs

The appropriate financial instrument(s) selected by the borrower will depend on the project's specific attributes, such as type of infrastructure, sector, scale, financing and co-financing needs, mitigation and/or adaptation objectives, as well as the borrower's characteristics, investor appetite for risks and returns, and the type of sources of financing available. Depending on the selected climate finance source (public or private) and financial instrument(s), the financier's key criteria will be different, with specific requirements to be followed by the climate finance proponent.

While the types of instruments available are those typical of any project finance transaction, climate finance instruments can further be categorised by the results the funds are lent against. Specifically, some climate finance is based on the greenness of the investment to be financed, i.e., the focus is on the proceeds are used. Other climate finance is linked to predefined, improved climate results that must be achieved by the borrower – either the interest rate goes down if the borrower meets the climate target, or the interest rate goes up if it does not. These two distinct approaches to climate finance are summarized in the figure below.

Item	“Use of Proceeds” - Green/Social/Blue/Sustainable	“Target Driven” - Sustainability-Linked Financings
Description	<ul style="list-style-type: none"> Financial instruments with a dedicated use of proceeds focused on eligible categories, including: <ul style="list-style-type: none"> ✓ Climate adaptation ✓ Climate mitigation ✓ Social ✓ Ocean conservation ✓ Biodiversity 	<ul style="list-style-type: none"> Pricing linked to achievement of ambitious targets Target compliance is verified at an agreed point in time and generally no rebates apply Targets are normally corporate ESG metrics Targets need to be material – i.e., relevant to the business; and ambitious compared to “business as usual” and peers
Pricing	<ul style="list-style-type: none"> Normally priced as conventional instruments Market demand has led to a “greenium” for borrowers/issuers 	<ul style="list-style-type: none"> Interest rate and fees indexed to performance on targets: <ul style="list-style-type: none"> For bonds, at least 25 bps step-up if targets are missed For loans, up to 25 bps step-down if targets are met
Verification	<ul style="list-style-type: none"> Implementation and validation methodology laid out in a Sustainable Financing Framework Second Party Opinion usually required 	<ul style="list-style-type: none"> Target rationale, ambitiousness and validation methodology laid out in a Sustainability-Linked Financing Framework Second Party Opinion usually required
Standards	<ul style="list-style-type: none"> Aligned with ICMA or LMA’s Green Loan Principles and Green, Social and Sustainability Bond Principles. 	<ul style="list-style-type: none"> Aligned with ICMA’s Sustainability-Linked Loan / Bond Principles

Source: International Finance Corporation

Green bonds may be particularly attractive to issuers because they can benefit from a “greenium,” or a premium for bond issuers experienced through lower interest rates than conventional bonds. A recent systematic review of the available literature estimates that an average greenium ranging from -1 to -9 basis points exists for green bonds on the secondary market.⁶ Green bonds appear particularly advantageous for emerging markets, with an average emerging market greenium of -3.4 basis points as compared to conventional bonds by the same issuer, though a relatively small sample size cautions against drawing firm conclusions.⁷

Nevertheless, given the high yield nature of this segment of the market, there could be potential for the emerging market greenium to widen. The negative premium is mostly a result of the imbalance between the supply of green bonds and investors’ demand.⁸ In addition, a greenium may be a part of the overall discount factor (or the required rate of return). That is, assuming the sustainability factor associated with a thematic bond is a credit positive, such that the issuance of the bond is perceived to improve sustainability, this in turn should result in lower overall risk of the issue (issuer) and thereby warrant a lower yield (higher price) relative to the normal curve (i.e., greenium).⁹

As the “greenium” becomes wider, issuers will have greater incentive to issue green bonds, which should support the “greening” of the emerging market debt market. Overall, the green bond market presents a promising opportunity for organizations, and in particular those operating in

⁶ S. MacAskill, E. Roca, B. Liu, R.A. Stewart, O. Sahin. 2021. *Is there a green premium in the green bond market? Systematic literature review revealing premium determinants*. Journal of Cleaner Production, Volume 280, Part 2. ISSN 0959-6526. Accessed November 7, 2022. <https://doi.org/10.1016/j.jclepro.2020.124491>.

⁷ Amundi Asset Management and International Finance Corporation. 2021. *Emerging Market Green Bonds Report 2020: On the Road to Green Recovery*. IFC: Washington, D.C. 2021. Accessed November 7, 2022. <https://www.ifc.org/wps/wcm/connect/0fab2dcd-25c9-48cd-b9a8-d6cc4901066e/2021.04+-Emerging+Market+Green+Bonds+Report+2020+-+EN.pdf?MOD=AJPERES&CVID=nBW.6AT>.

⁸ Ibid.

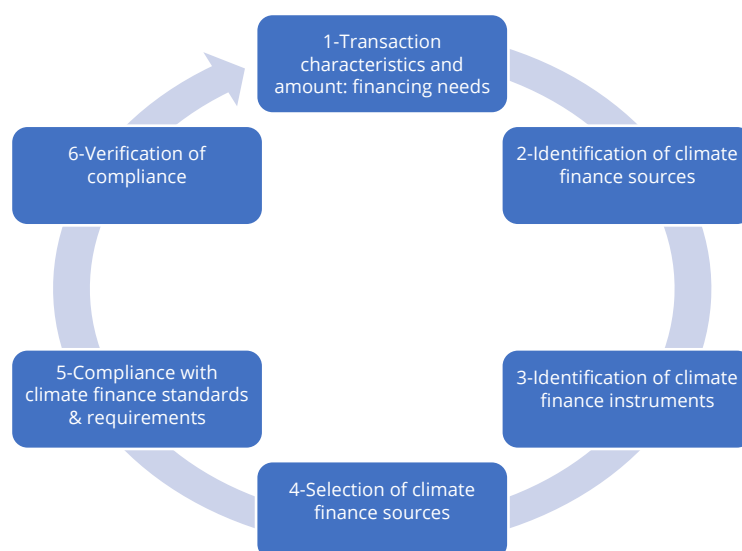
⁹ United Nations Development Program. 2022. *“Identifying the ‘greenium’.” UNDP Blog*, April 25. Accessed November 8, 2022. <https://www.undp.org/blog/identifying-greenium>.

emerging markets, to finance largescale sustainable investments across a wide variety of industries and green technologies, potentially at a lower cost of debt.

The yield of these bonds is typically dependent on the degree of green investment that they are financing, but certain instruments allow for the interest rate to be adjusted based on the degree of improvement in the sustainability of the organization. Green bonds are particularly popular in emerging markets and their contributions to the global market have grown significantly, increasing by 21% in 2020. China is currently the leading issuer of green bonds in emerging markets; other countries that have seen growth include Armenia, Egypt, and Saudi Arabia.

Accessing Climate Finance

While the process for obtaining climate finance will vary depending on the financial source, the following flow chart presents a typical, non-exhaustive overview of the usual process for mobilizing climate finance.



Each step is discussed in more detail, below, after first distinguishing between the respective roles of the public and private partners to an asset recycling transaction in accessing climate finance.

Roles of the public and private partners

In a typical asset recycling transaction, financing risk will usually be assumed by the private sector partner (for example, the Concessionaire), meaning the responsibility for considering and seeking climate finance sources and instruments will rest primarily with the private partner. Nonetheless, even in this case, the public sector project owner should play a cooperative and supportive role, for example by sharing any data, information, studies, or planning documents relevant to the asset that may inform a climate finance proposal and facilitating any government approvals or letters of support that may be required by the climate financier. In addition, in its role as contract manager, the public partner may be well-positioned or required to help monitor, report, and verify the achievement of results set by the climate finance instrument.

In other cases, however, the public sector may bear the financing risk and seek climate financing, for example where a particular climate source (a climate fund) will lend to only the public sector, not only for project preparation but also to finance the project itself. In addition, there may be advantages to the public sector project owner undertaking the preparatory work needed to access climate finance alongside the other project preparation activities, prior to commencing the tender process for the asset recycling transaction. Where a project appears to be a good candidate for climate finance and some form of climate finance is likely necessary for the transaction to be commercially viable, the public partner may consider completing studies needed for the climate finance proposal, or even completing the preliminary or full climate finance proposal, as part of the project preparation activities. This is especially true if the public partner can access project preparation assistance at the domestic or international level that can provide funding and other resources to support project preparation. These resources may be more accessible to public sector project proponents, particularly those in emerging markets and developing economies. In addition to the possibility of obtaining support for project preparation, this approach permits the expected climate finance source and instrument to influence the transaction structure and may reduce overall financing costs.

Transaction characteristics and amount: financing needs

Initially, the public and private parties to an asset recycling transaction should assess its likely eligibility for climate finance predominantly in view of its expected mitigation and/or adaptation impacts or focus, while also considering indirect benefits and other criteria that may bear on eligibility. In general, there are two types of projects: (1) those that focus on mitigation and/or adaptation; and (2) cross-cutting or thematic projects that integrate mitigation and adaptation elements into ongoing projects or programmes. To access climate finance, an asset recycling transaction should provide clear climate benefits, which will be assessed, measured, and reported by the borrower. That is, initial screening should focus on whether the project produces the right kind of outcomes, whether direct (reduced or avoided GHG emissions, reduction in harm, reduction in the risk of harm, or the realization of benefits to address climate variability and change), indirect (market development, capacity building, leveraging effects, sustainable development potential), or both.

While eligibility criteria will vary across climate finance sources, some of the most common, broadly applicable criteria are outlined in the box, below.

Early-stage Screening Criteria for Climate Finance Eligibility

Practitioners, public and private, should understand some of the key criteria and requirements for assessing the likelihood that a project or intervention will be able to access climate finance sources. As with most aspects of project preparation, this process is necessarily iterative and subject to change as more data and details about the project become known. Nonetheless, understanding these basic criteria can help practitioners identify projects with climate finance potential and guide decision-making as projects develop.

1. Mitigation and adaptation: An essential element for any climate finance proposal is the ability to demonstrate verifiable impacts in terms of mitigation action, adaptation efforts, or both. In this regard, practitioners should consider both direct effects (for example, a renewable energy project that avoids emissions from fossil-based power generation) and indirect effects (for example, projects that contribute to market development and thereby create new opportunities for additional, climate positive investments in the future). In addition, a key aspect of this criteria is the extent to which the climate benefits can readily and reliably be forecast, monitored, and

verified. The clearer the impacts and the more easily they can be quantified, evaluated, and reported, the more likely the project is a good candidate for climate finance.

2. Co-financing/blended finance: Practitioners should consider how conducive the project size and risk profile are to co-financing or blended finance transaction structures. Size simply relates to the amount of investment needed – bigger investments create more space for multiple investors – while risk profile considers issues like the use of new technologies or project types that may attract impact investors, venture capitalists, or concessional loans from climate funds or DFIs. In any case, as discussed above, the ability to leverage private finance on top of public contributions is an increasingly important metric for many public climate finance sources.
3. Replicability: Pilot or demonstration projects in untested sectors intended to provide proof of concept, and thereby unlock similar investments in the future, may appeal to some climate finance sources. The same is true of first-mover projects intended to catalyse investment in proven sectors that so far have not developed in the specific jurisdiction. These projects are premised more on their potential to catalyse market transformation—prompting large-scale shifts in economies or sectors to more sustainable technologies or practices—than the more direct and limited climate impacts of the individual project.
4. Scalability: Opportunities for scaling up, including through successive rounds of financing, can increase the appeal of a project to some climate finance sources. Practitioners should consider whether there are options to build on and expand climate benefits after any immediate needs for operating, maintaining, and monetizing an asset are met.

In addition to initial screening for climate finance eligibility, at this stage the financing proponent (public or private) should undertake a reasonable transaction assessment based on relevant and reliable data to determine the transaction amount and establish the financing needs. This will help establish whether there is a need for climate finance and, if so, begin to indicate what available instruments can best fill this need.

The financing proponent should also decide on the need for engaging a climate finance expert as early in the process as possible, which will depend on the availability of in-house expertise and that of potential partners. Another option is to identify potential dedicated Project Preparation Facilities and sources that may be able to provide support with preparing a climate finance transaction.

Identification of climate finance sources

Assuming climate finance may be available and, if so, is needed or desired, the financing proponent should review public and private climate finance sources available and identify those sources most likely to be accessible for the specific asset recycling transaction, in light of the project type, themes, results area(s), and jurisdiction, among others. Once all reasonable options are identified, the available sources should be reviewed in terms of their criteria, due diligence requirements, and decision-making processes, to narrow the options and facilitate identification of the right source of climate finance.

To understand the landscape of available climate finance, the financing proponent should assess the local jurisdiction's readiness and access to international climate funds. This includes identifying any comparable local actors, public or private, that have successfully accessed climate finance and whether there are local accredited intermediaries that can facilitate access to different climate finance sources. While there is an increasing number of climate funding and financing sources, this

does not directly translate into easier access and availability where the local policy framework is not conducive to access.

Identification of climate finance instruments

As a next step, the financing proponent should identify and decide on the kind of financial instrument(s) and mechanism(s) that best suit the needs of the asset recycling transaction. This must take into account availability, transaction costs, financing costs, and the prospective financiers' risk and return appetites, among others.

Selection of climate finance sources

Ultimately, the financing proponent should select the best sources of climate finance according to the asset recycling transaction's needs and the desired financial instrument(s). Depending on the asset transaction (specific objectives, technology, sector, theme, need for climate finance, etc.) and country readiness to access climate finance, a decision must be made whether to commence engaging with the identified financiers. There are a number of common principles that bear on securing climate finance, including capacity of the borrower (for example, creditworthiness, reputation, and experience), expected return on investment, making use of collaborative action, communicating the rationale for action, and building local capacity.

Accessing bilateral or multilateral sources generally requires the preparation of an initial concept note, which is followed by a full project proposal once the concept passes the assessment criteria of the financing source being approached. It is fundamental to make a strong case for justifying the need for financing by the financial source targeted for the asset recycling transaction project being proposed. In some cases, it is useful to prepare the full proposals as bankable documents (i.e., functionally ready for financial close, with all material terms defined). If several funding sources are being approached, this may entail a reiterative process with multiple financiers to reach financial close. In addition, larger projects or programmes that need to blend different funding sources and financial mechanisms often go through multiple funding rounds, either in succession or in parallel.

Compliance with climate finance standards and requirements

The financing proponent will need to ensure that the asset recycling transaction complies with the specific standards, criteria, and requirements of the selected climate finance sources, according to the terms of the financial instrument, which may include the use of funds, as well as specific documentation and methodologies to follow throughout the process of reaching financial close and over the life of the project.

Climate finance standards and principles differ according to the type of financial instruments, sources, and sectors. An overview of the requirements for one (1) type of internationally certified climate finance instrument is provided as an example, as follows.

- The Climate Bonds Standard and Certification Scheme, developed by the Climate Bonds Initiative (CBI), is a labelling scheme for thematic bonds to be verified as Certified Climate Bonds. It is used globally by bond issuers, governments, investors, and financial markets to prioritize investments that contribute to addressing climate change. Certification is available for assets and projects that meet the requirements of the Climate Bonds Standard.

- In order to receive the “Climate Bonds Certified” stamp of approval, a prospective issuer of a thematic bond, in this case titled a Green or Climate Bond, must appoint a third-party Approved Verifier, which will provide a verification statement that the bond meets the Climate Bonds Standard. Examples of verifiers include Bureau Veritas, Deloitte, Carbon Trust, KPMG, and EY, among others.
- The Climate Bonds Standard allows Certification of a bond prior to its issuance, enabling the issuer to use the Climate Bonds Certification Mark in marketing efforts and investor roadshows. The Climate Bonds Standard Board (comprised of members representing USD 51 trillion in assets under management) confirms Climate Bonds Certification once the bond has been issued and the proceeds have been allocated to the projects and assets.
- Certified Climate Bonds (as well as Certified Climate Loans, which CBI also certifies, along with other debt instruments) are fully aligned with the Green Bond Principles. For thematic bonds, a set of principles have been published by the International Capital Market Association (ICMA) to outline best practices when issuing bonds serving social and/or environmental purposes through global guidelines and recommendations that promote transparency and disclosure, thereby underpinning the integrity of the market. The Certified Climate Bond process is premised on these ICMA principles, which include:
 - Green Bond Principles (GBP), which seek to support issuers in financing environmentally sound and sustainable projects that foster a net-zero emissions economy and protect the environment.
 - Social Bond Principles (SBP), which seek to support issuers in financing socially sound and sustainable projects that achieve greater social benefits.
 - Sustainability Bond Guidelines (SBG), which confirm the relevance of the principles and facilitate the application of their guidance on transparency and disclosure to the sustainability bond market.
 - Sustainability-Linked Bond Principles (SLBP), which provide guidelines that recommend structuring features and disclosure and reporting frameworks. They are intended for use by market participants and are designed to drive the provision of information needed to increase capital allocation to such financial products.
- Costs for obtaining verification as a Certified Climate Bond are both fixed and variable, depending on the size of the issuance. A minimum fee of USD 2,000 applies for bond issuers in developed countries and USD 1,000 for issuers in developing countries, which is assessed by CBI upon awarding the Certification label. Following the issuance of any certified bond (or a series of bonds in a programmatic certification process) a variable fee of 1/10th of a basis point (i.e. x 0.00001) of the bond issuance amount will be assessed. For example, on a USD 500 million bond, the certification fee is USD 5,000. If the variable fee exceeds the minimum fee, an additional amount will be payable at the time of bond issuance equal to the difference between the variable fee and the minimum fee.

Verification of Compliance

The financing proponent should provide information for verification of compliance of the climate and/or social objectives that allowed access to climate finance. The use of qualitative performance indicators and, where feasible, quantitative performance measures (for example, energy capacity, electricity generation, GHG emission reductions, avoided GHG emissions, etc.) should be included in the compliance report according to the specific requirements of the climate finance providers and financial instruments used. All sources request quantifiable and measurable impacts in terms of either mitigation (reduced or avoided GHG emissions) or adaptation (increased resilience to the adverse impacts of climate change) that can be reliably measured, reported, and verified.

Third-party verification of compliance may be required, especially where climate finance is sourced internationally. However, this will depend on the particular jurisdiction, including the location of the project as well as the jurisdiction where the financing is procured

Case Studies for Climate Finance in Asset Recycling

This section presents three (3) selected case studies from developing countries (2 country-specific and 1 regional) that show the successful use of climate finance sources and instruments and effectively leveraged private investments through a variety of innovative financial instruments for climate change projects (i.e., clean energy projects), with specific environmental and social impacts and local stakeholder engagement.

Case Study 1: 500 kV Mantaro-Nueva Yanango-Carapongo Interconnection and Associated Substations

Financial Instrument(s): Green Bond

Country: Peru

Project Title: “500 kV Mantaro-Nueva Yanango-Carapongo Interconnection and Associated Substations”

Sector: Renewable energy – Transmission

Issuer: ISA CTM – Consorcio Transmantaro S.A. (Non-Financial Corporate)

Invested Amount: USD 164.4 million and 58% co-financing

Project Highlights: First non-financial corporate international green bond issuance from Peru in 2019. It is also the first to specifically finance energy transmission projects in Peru to increase the use and reliability of renewable energy sources.

Project Description: Thanks to abundant water resources, the central zone of Peru is a large nucleus of hydroelectric power generation. The projects financed by this green bond issuance will help connect several renewable energy sources to the National Interconnected Electric System, in order to meet the expected increase in demand for electric power, as well as strengthening the electric transmission capacity in the central zone of Peru in a timely and effective manner. This will reinforce the transmission system in the central zone of the country and improve the evacuation of surplus generation from the Mantaro zone towards Lima. To support the issuance of the green bonds, the project company procured third-party assessments from Moody’s Investors Service (“Green Bond Assessment”) and S&P Global Ratings (“Green Evaluation”), which evaluated the transparency, governance, and anticipated mitigation impacts related to the use of proceeds. Both assessments scored the bond issuance towards the high end of their respective ratings systems, which score, *inter alia*, alignment with ICMA’s Green Bond Principles.

Use of Proceeds: The net proceeds of the green financing instruments will be exclusively used to finance and/or refinance eligible green projects in three (3) main categories:

1. Renewable Energy: Investments in the installation of electricity transmission lines that facilitate increased development and connection of renewable electricity generation sources
2. Energy Efficiency: Investments related to energy efficiency improvements to transmission infrastructure
3. Energy Storage: Investments into energy storage systems to allow renewable energy sources to deliver energy needs on a timely basis.

Case Study 2: Indonesia Geothermal Resource Risk Mitigation Project

Financial Instrument(s): Grants, Equity and Loans

Country: Indonesia

Project Title: Indonesia Geothermal Resource Risk Mitigation Project

Sector: Energy sector

Invested Amount: USD 410M

Sources of Finance: International Bank for Reconstruction and Development (USD 325 million loan), Green Climate Fund (GCF) (USD 25 million soft loan, USD 150 million reimbursable grant, and USD 10 million grant), and the private sector (expected to provide USD 100 million in leveraged equity financing).

Project Highlights: The project is expected to enable reduction of 112 MtCO₂e over the generating assets' lifetime, through an additional electric power generation capacity of 1 – 1.5 GW from geothermal resources.

Project Description: The national electricity grid in Indonesia has been dominated by fossil-fuelled generation. This project aims to support a scale-up of investment in geothermal energy development and is expected to contribute to: (i) displacing highly polluting power supply alternatives and diversifying the nation's generation portfolio; (ii) reducing reliance on fossil fuels and exposure to commodity price volatilities; and (iii) ultimately lowering the energy sector's emissions compared to the business-as-usual scenario.

Use of Proceeds: Sarana Multi Infrastruktur (SMI – a nationally-owned DFI), through the Geothermal Facility, will provide geothermal developers with debt financing for their resource exploration and confirmation drilling, through: (i) the extension of soft loans to public sector developers, and (ii) the extension of loans to private developers and the subscription of convertible bonds issued by private sector developers, to be used alongside the private developer's equity. By providing these additional financing options for the expensive and risky geothermal exploration activities, the project aims to help unlock Indonesia's vast geothermal energy resources.

Case Study 3: Microfinance Risk Participation and Guarantee Program

Financial Instrument(s): Partial Guarantees, Loans

Country: Regional – East Asia and Pacific

Project Title: Microfinance Risk Participation and Guarantee Program

Sector: Financial sector

Invested Amount: \$1.48 billion total loans supported

Project Highlights: 37 microfinance institutions (MFIs) approved and 7.73 million borrowers supported, 10 Partner Financial Institutions (PFIs)

Project Description: The Asian Development Bank's (ADB) Microfinance Risk Participation and Guarantee Program is a credit enhancement and a risk-allocation tool, designed to address a market gap and promote local currency lending to MFIs. ADB partners with MFIs to increase their access to local currency funding and address the financial needs of millions of individuals, families, entrepreneurs, and small businesses that lack access to finance, which is a key challenge for economic development. Across Asia and the Pacific, many MFIs struggle to obtain the commercial funding they need to grow and meet the demands of their micro-borrowing clients, a vast majority of which are women.

Given its risk-sharing structure, the program encourages private sector participation on market-determined terms.

Use of Proceeds: Term Loans: Cover payment default risk on loans made by PFIs to MFIs in ADB DMCs.

Additional Resources

A variety of guidelines, toolkits, checklists, landscape assessments, have been published on various aspects of climate finance, including the following selection that has informed the development of this Annex.

- [The Project Preparation Resource Directory](https://citiesclimatefinance.org/project-preparation-resource-directory/), available at: <https://citiesclimatefinance.org/project-preparation-resource-directory/>
- [The NDC Partnership Climate Finance Explorer](https://ndcpartnership.org/climate-finance-explorer#:~:text=The%20Climate%20Finance%20Explorer%20is,can%20help%20you%2C%20click%20here), available at: <https://ndcpartnership.org/climate-finance-explorer#:~:text=The%20Climate%20Finance%20Explorer%20is,can%20help%20you%2C%20click%20here>
- [Compendium of Climate Finance Reports and Tools](https://e-lib.iclei.org/finance/Climate%20finance%20reports%20and%20tools-Website3.pdf), available at: <https://e-lib.iclei.org/finance/Climate%20finance%20reports%20and%20tools-Website3.pdf>
- [Toolkit to Enhance Access to Climate Finance](https://unfccc.int/sites/default/files/resource/Toolkit%20to%20Enhance%20Access%20to%20Climate%20Finance_UPDF.pdf), available at: [https://unfccc.int/sites/default/files/resource/Toolkit to Enhance Access to Climate Finance_UPDF.pdf](https://unfccc.int/sites/default/files/resource/Toolkit%20to%20Enhance%20Access%20to%20Climate%20Finance_UPDF.pdf)
- [A Resource Guide to Climate Finance](https://actalliance.org/wp-content/uploads/2018/06/ENGLISH-quick-guide-climate-finance.pdf), available at: <https://actalliance.org/wp-content/uploads/2018/06/ENGLISH-quick-guide-climate-finance.pdf>
- [Accessing Climate Finance: A step-by-step approach for practitioners](http://www.climasouth.eu/docs/E_Handbook_N8_EN.pdf), available at: http://www.climasouth.eu/docs/E_Handbook_N8_EN.pdf
- [Good Climate Finance Guide](https://pubs.iied.org/sites/default/files/pdfs/2021-01/10207IIED.pdf), available at: <https://pubs.iied.org/sites/default/files/pdfs/2021-01/10207IIED.pdf>
- [Green Climate Fund \(GCF\)](https://www.greenclimate.fund), available at: <https://www.greenclimate.fund>
- [GCF Private Sector Facility](https://www.greenclimate.fund/sites/default/files/document/green-climate-fund-s-private-sector-facility_0.pdf), available at: https://www.greenclimate.fund/sites/default/files/document/green-climate-fund-s-private-sector-facility_0.pdf
- [UNEP Report Demystifying Private Climate Finance](http://www.unepfi.org/fileadmin/documents/DemystifyingPrivateClimateFinance.pdf), available at: <http://www.unepfi.org/fileadmin/documents/DemystifyingPrivateClimateFinance.pdf>
- [The USAID: A Quick Guide to Climate Change Adaptation Funds](https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20Adapt%20Asia%20Pacific_A%20Quick%20Guide%20to%20CC%20Adaptation%20Funds.pdf), available at: https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20Adapt%20Asia%20Pacific_A%20Quick%20Guide%20to%20CC%20Adaptation%20Funds.pdf
- [Global Landscape of Climate Finance 2021](https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/#:~:text=As%20measured%20in%20the%20Global,warming%20to%201.5%20%C2%B0C) report from the Climate Policy Initiative (CPI), available at: <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/#:~:text=As%20measured%20in%20the%20Global,warming%20to%201.5%20%C2%B0C>

- OECD (2021), [The OECD DAC Blended Finance Guidance](https://doi.org/10.1787/ded656b4-en), OECD Publishing, Paris, available at: <https://doi.org/10.1787/ded656b4-en>
- [Climate Bonds Initiative](https://www.climatebonds.net/), available at: <https://www.climatebonds.net/>
- [The Climate Finance Portal](https://unfccc.int/climatefinance?home), available at: <https://unfccc.int/climatefinance?home>
- [The Role of National Development Banks in Catalyzing International Climate Finance](https://publications.iadb.org/en/role-national-development-banks-catalyzing-international-climate-finance), IDB, available at: <https://publications.iadb.org/en/role-national-development-banks-catalyzing-international-climate-finance>

Module 9 - Islamic Finance

Introduction

Financing is a process of providing funds for business activities, making purchases, or investing. Conventional finance achieves this by leveraging the time value of money (TVM) whereas Islamic finance generally achieves this by leveraging the income stream generated from an underlying asset or commodity. By its nature, Islamic finance involves using traditional investment techniques and structures (that comply with the principles of Shari'ah) to leverage the income stream generated from an asset or commodity thus creating arrangements that work in ways that are analogous to, and which achieve the economics of, modern conventional finance. This is what is meant when Islamic finance is described as being "asset-based" financing.

Islamic finance is also often described as involving (even requiring) "risk-sharing". As profit cannot be pre-determined or assured, an Islamic financial institution must assume part of the risks of a given transaction. The financier's assumption of some commercial risks (as opposed to credit risk) relating to the underlying asset will be necessary to ensure Shari'ah compliance. On the other hand, a financier in a conventional financing will seek to ensure that, so far as possible, it does not take on any commercial risk relating to the borrower or the asset it is providing finance for.

Interestingly, "asset-based" and "risk-sharing" are not only key features of Islamic finance, they are also fundamental features of typical assets recycling transactions. In asset recycling transactions, revenue generating public assets are identified for monetization purposes and then monetized proceeds are ring-fenced and invested in new or existing infrastructure assets. Islamic finance is well-suited for assets recycling transactions and is already well-established as part of the project and asset finance industry for many years, driven by high investments in infrastructure in the Middle East.

In this paper, we explore the type of assets that are suitable for Islamic finance-based assets recycling transactions and the issues that governments typically encounter in such transactions and dive into the pros and cons of some selective Islamic finance products which are suitable for structuring an asset recycling transaction. There are numerous Islamic finance products and each of them are different. While certain Islamic finance products appear to be suitable for structuring an asset recycling transaction, others may not work.

The chart below summarises a suitability analysis undertaken further below in this paper in respect of a selection of popular Islamic finance products:

Islamic Finance Product	Sale and leaseback	Long Term Head Lease & Short Term Sublease	<i>Sukuk al-ijarah</i>	Equity Sharing Structures e.g., <i>musharakah</i>	A Sale Based Structure e.g., <i>murabahah</i>	A Lease-Based Structure e.g., <i>ijarah</i>
Ease of Asset Control Transfer	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ★ ★ ☆	★ ★ ☆ ☆ ☆
Stability	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ★ ☆ ☆
Market Appetite	★ ★ ☆ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ★ ★ ★ ☆	★ ★ ☆ ☆ ☆	★ ★ ★ ★ ☆	★ ★ ☆ ☆ ☆
Simplicity	★ ★ ☆ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ★ ★ ☆	★ ★ ★ ★ ☆
Overall Suitability	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ★ ★ ☆	★ ☆ ☆ ☆ ☆	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆

Key Considerations in Assets Recycling

Strategic assets (sovereign ownership)

Recyclable sovereign assets (including oil, gas, real estate, shopping malls, apartment complexes, farms, hotels, power plants, toll roads, ports, airports, fiber-optic networks and pipelines) could be monetized to start a powerful multiplier effect for the economy. Strategic assets can refer to government assets of tremendous value (such as profitable sovereign owned enterprises) or government assets of vital necessity (such as water or electricity generation plants).

Understandably, governments must think twice before recycling any strategic asset.

Consideration must be given to the public sentiment towards recycling a particular strategic asset and what form should the asset recycling take, in light of the shape and demands of the funding itself, and the public sentiment surrounding the recycling of the strategic asset.

Concerns over national security have been one reason why state governments may be reluctant to recycle government assets. In 2016, the Australian government chose to block an asset recycling transaction with Chinese and Hong Kong parties citing national security considerations. Asset recycling transactions have also been the subject of negative public perception due to job cuts in past asset recycling transactions where the control and management of certain government assets passed to the private sector. Asset recycling transactions are often contested by unions as well as opposition parties because of this. Other concerns such as the risk of private information leaks, errors and fraud have similarly been raised in asset recycling transactions.

One way to manage public perception is to be firm and transparent in the clauses that a prospective secured party must abide by if it takes control of the recycled asset. These can be set out at the time the asset is identified publicly as a potential asset for recycling and should include

clear protection for government employees and end users. The need for contractual protections will depend on the level of control and management rights that have been passed down from the government to the private sector. In asset recycling structures where the government still maintains a high level of control over the recycled asset, contractual protections will not be as necessary. Examples of such contractual stipulations include:

- a) **Composition of board members:** governments can retain a level of participation in the decision-making boards of the recycled strategic assets. For example, the Australian Government through TransGrid Company recycled its high voltage electricity transmission network with a consortium including the Abu Dhabi Investment Authority and the Kuwait Investment Authority. In this transaction, the control of the electricity transmission network has passed to the consortium. However, Australian Government required that half the board managing the electricity transmission network be Australian citizens.
- b) **Stake holding by foreign parties:** governments can limit the control, or percentage of ownership, foreign parties can have in the recycled strategic asset. For example, the Australian Government recycled its coastal Port Darwin harbor with Chinese-owned company named Landbridge Group. However, the Australian Government required that 20% of share in the harbor be held by a national Australian company.
- c) **Employment guarantee:** governments can require the new private operator to keep a certain percentage or number of the original eligible staff for certain durations post enforcement over the recycled strategic asset. This is especially relevant in automatable industries. For example, the Australian Government recycled its general cargo Port of Melbourne and as part of that transaction, the counterparty, called Lonsdale Consortium, were not permitted to terminate or change the existing employees of the port for a period of two years.
- d) **Pricing limitation:** governments can set fixed utility prices and toll rates. Price caps can be stipulated as part of the asset recycling transaction. For example, the Australian Government recycled one of its electricity distribution companies, Ausgrid Company. As part of that transaction, the Australian Government required an electricity price guarantee to ensure that utility prices will remain within a certain agreed range notwithstanding the asset recycling transaction and any future change of control to Ausgrid Company.

Beyond the public perception of what assets are acceptable for asset recycling transactions, a government must also set out a clear definition of the assets, if any, where it will not entertain asset recycling transactions, or at least put in place certain restrictions relating to it. The EU and the Australian government are among the government bodies which have put in place guidelines for 'critical infrastructure', although there is no single definition for this term. Each government can then put in place their own specific regulations de-scoping assets which a government wants to maintain complete control over.

Tangible versus intangible assets (including emissions reduction credits)

When developing an asset recycling scheme, governments should not limit the scope of eligible assets to tangible assets. Intangible assets (for example, mobile airtime) could equally be considered Shari'ah compliant assets for an Islamic finance structure. A good asset for recycling is

one that is: (i) cost-effective to hold, (ii) operationally easy to use, and (iii) easy to take delivery of and to liquidate. Falling short on any one of these attributes inhibits the effectiveness of the recycled asset. In addition, the systems used to manage the recycled assets need secure, central, digital ownership records with transparent data and asset status that allow for the real-time flow of information.

This leads to "Cap & Trade" programmes and emissions reduction credits ("ERCs"). Cap & Trade is a common term for government regulatory programmes designed to limit, or cap, the total level of emissions of certain polluting chemicals, particularly carbon dioxide, as a result of commercial industrial activity. The government sets the limit, or "cap" on emissions permitted across a given industry. It issues a limited number of permits that allow companies to emit a certain amount of the pollutants that drive global warming.

The total amount of the cap is split into allowances. Each allowance permits a company to emit a certain amount of emissions (usually one ton of emissions). The government distributes the allowances to the companies, either for free or through an auction. Companies are taxed if they produce a higher level of emissions than their permits allow. They may even be penalised for a violation. On the other hand, companies that reduce their emissions earn ERCs which can be sold to other companies that pollute more or banked for future use.

Governments can also lower the number of permits each year, thereby lowering the total emissions cap. That makes the permits and ERCs more expensive. Over time, companies have an incentive to reduce their emissions more efficiently and invest in clean technology as it becomes cheaper than buying permits. ERCs can be suitable assets for recycling as governments can easily create a legal framework to ensure that they are (i) cost-effective to hold, (ii) operationally easy to use and (iii) easy to take delivery of and to liquidate. Governments can easily set up a secure, central, digital ERC ownership register with transparent data and asset status that allow for the real-time documentation of ERCs recycling transactions or any other transaction involving ERCs. Furthermore, it is typically the governments that control the emissions "cap" and can issue ERCs making them an attractive asset for recycling.

We are not aware of any country that has utilized the idea of asset recycling in congruence with ERCs. Despite that more recently as of 2022, Abu Dhabi Global Market (ADGM) collaborated with Air Carbon Exchange (ACX) to launch the world's first fully regulated carbon trading exchange. Corporates will be able to exchange and finance carbon credits using the same legal framework as other financial assets, enhancing involvement and investment in global carbon reduction.

There is currently no consensus amongst the Shari'ah scholars that ERCs could be treated as Shari'ah compliant asset. Taking into account that Islam promotes the share management of natural resources, it is however perceived that ERCs could be considered as Shari'ah compliant asset.

Despite the uncertainty between Shari'ah scholars as to whether ERCs are to be considered a Shari'ah compliant asset, plans were made to launch the first Shari'ah compliant carbon-trading platform. Advanced Global Trading (AGT) a London based company proposed the idea to GCC investors to trade carbon credits that is Shari'ah compliant. Unfortunately, these plans did not come to fruition; the project had not had any more updates since 2013.

Other issues

It's equally important that a government truly understands the assets in which the private sector is interested in recycling. A government, often through a designated infrastructure agency, can maintain regular dialogue with national and global fund providers to ensure an up-to-date understanding of recycling preferences and expectations. Mismatched expectations regarding the assets available for recycling would have the potential to undermine the success of an asset recycling transaction.

Overview of Assets Recycling Through Islamic Finance

Introduction to Islamic Finance instruments for assets recycling

One strikingly common feature between assets recycling and Islamic finance is that both are primarily based on assets. In asset recycling, revenue generating public assets are identified for monetization purposes and then monetized proceeds are invested in new or existing infrastructure assets. Similarly, Islamic finance is an asset-based and risk-sharing financing technique and money in Islamic finance generally does not move without the movement (in the form of transfer of ownership or usufruct) of certain underlying assets. Accordingly, Islamic finance appears to be a natural fit for assets recycling transactions.

Unlike loan based conventional financing techniques, Islamic finance is asset based and generally involves: (a) an equity-based / sharing-based structure, e.g., musharakah (partnership) and mudarabah (partnership in profit); (b) a sale based structure, e.g., murabahah (sale with profit), istisna'a (build / manufacture) and salam (advance purchase); (c) a lease-based structure, e.g., ijarah (leasing); or (d) a fee-based structure, e.g., wakalah (agency), kafalah (guarantee) and ju'alalah (service contract).

Given a typical asset recycling transaction would involve transferring the control of an asset capable of generating income in exchange for financial consideration, the Islamic finance instruments most suitable to facilitate such transfer for assets recycling purposes are considered to be various forms of lease (ijarah) based structures including: (a) sale and leaseback, (b) long-term lease and short-term lease (head lease and sub-lease); and (c) asset-backed sukuk al-ijarah.

a. Sale and leaseback

Ijarah or lease is the transfer of the usufruct of an asset to another person in exchange for a rent claimed from that person. The leased asset must have a usufruct, or a legal right to use and derive profit or benefit from the assets. In order to be Shari'ah compliant, an ijarah must be transparent, detailed and the terms agreed prior to execution. The lessor under an ijarah must maintain legal and beneficial ownership of the asset and bear responsibility for risks associated with ownership of the asset. In other words, there must be a link between a financier's ability to earn profits and the assumption of risk.

In a sale and leaseback arrangement the obligor sells certain specified assets that it owns to the financiers for an agreed price and then the obligor (as lessee) takes the same assets back on lease from the financiers (as lessor). The result is an immediate cash inflow for the obligor (in the form of sale price of the assets). In the context of an assets recycling financing, the obligor (typically a government) will ring-fence the sale price and invest it in new or

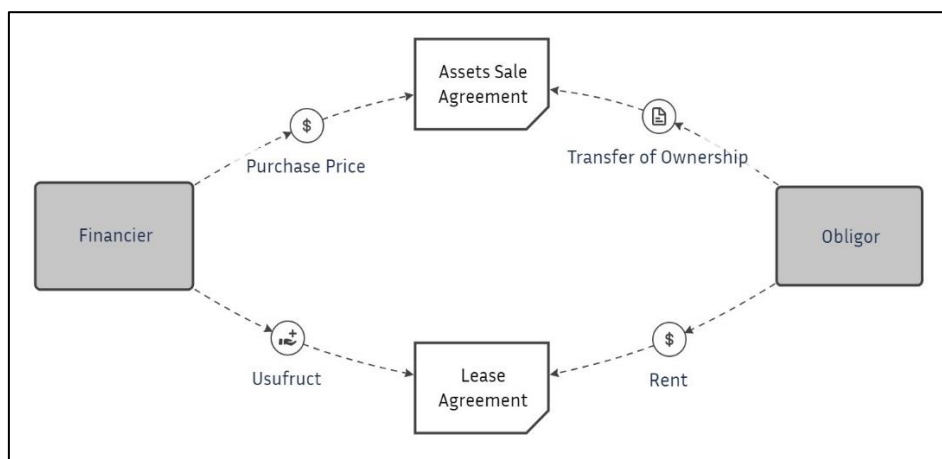
existing infrastructure assets. The obligor continues to use the assets in lieu of periodic rental payment to the financiers who now owns the assets.

An ijarah arrangement must comply with all of the following general Shari'ah requirements applicable to a lease:

- i. the financiers (as lessor) must have ownership of the underlying leased assets or the usufruct right in the underlying assets before entering into a lease agreement;
- ii. the benefit from an ijarah must be lawful under Shari'ah, for example, leasing a property to a shopkeeper selling alcohol would be unlawful under Shari'ah;
- iii. the leased assets must continue to exist throughout the period of the lease and any assets which are consumed during that period cease to be leasable;
- iv. the period of the lease and amount payable therefor in the form of rent must be certain and specified in advance;
- v. the lessee must use the leased asset only for the purpose specified in the lease, or, absent a specified purpose, in conformity with common practice;
- vi. the lessor must maintain and insure the leased assets during the lease period, provided that the lessor may, if it so wishes, delegate such obligation to an agent (including the lessee in its capacity as agent of the lessor); and
- vii. the liabilities arising from the ownership of the leased asset, such as any harm or loss, are borne by the lessor (as the owner of the asset).

In the context of Islamic finance, the form of ijarah typically used is known as an ijarah wa iqtina (i.e., a lease-and-purchase transaction or buy-back leasing). This form of ijarah includes a promise by the financiers as lessor to transfer the ownership of the leased asset to the obligor, as lessee, either at the end of the lease period or in stages during the term of the ijarah.

An ijarah wa iqtina is essentially the Islamic equivalent of a conventional equipment lease contract outlined in the diagram below.



In the context of an assets recycling financing, the obligor (as lessee) and the financiers (as lessor) will enter into a lease agreement to lease the identified underlying assets immediately after signing the assets sale agreement. Pursuant to the lease agreement, the obligor will lease the assets from the financiers in return for lease payments.

The lease payments could be fixed or variable. In the case of a variable lease, rental payments are calculated by aggregating: (a) a fixed element, equivalent to principal on the conventional facilities; (b) a variable element, generally on the basis of a reference such as six-month Term SOFR, plus a fixed fee, which is equivalent to the applicable margin under the conventional facilities; and (c) a service amount, which is equivalent to the amount paid to the obligor, in its capacity as service agent under the service agency agreement, (further explained below) by the financiers. Lease payments can be structured to be made at the same times as equivalent payments under conventional facilities.

In accordance with Shari'ah principles, unlike in conventional operating leases, the financiers (in their capacity as owners of the assets or lessors) are responsible for all major maintenance; typically repair, replacement and maintenance without which the assets could not reasonably be used by the lessee.

The lessee is responsible for all ordinary maintenance (other than major maintenance); typically repair, replacement and maintenance of the assets, for example, basic wear and tear. In addition, the financiers will be responsible for the insurance of the assets and payment of ownership related taxes. To limit the financiers' liabilities and to ensure that third parties do not have any claims on the financiers or its assets, the obligor and the financiers enter into a service agency agreement pursuant to which the obligor is appointed as agent of the financiers for the purpose of carrying out the major maintenance, procuring the insurance and paying the ownership related taxes. If the obligor fails to effect any repairs or replacements, or obtain insurance, the financiers may do so and will be indemnified by the obligor for all amounts paid or costs incurred by the financiers.

If the obligor is found negligent in the use or maintenance of the assets, or in procuring insurance or performing any of its obligations listed under the service agency agreement, it assumes principal liability for and will be required to indemnify the financiers for any related losses.

A sale and leaseback structure typically incorporates purchase undertaking (put option) and sale undertaking (call option) arrangements following termination or expiry of the lease. Pursuant to the terms of the sale undertaking, the financiers usually undertake to sell all or part of the assets to the obligor in the event of a partial or full cancellation or prepayment of the facility and following the discharge by the obligor of all outstanding payments owed to the financiers.

If the obligor defaults, the financiers normally have the benefit of a purchase undertaking (put option) from the obligor. This is a form of acceleration of the facility. Upon occurrence of a default, if the financiers exercise their rights under the purchase undertaking, the obligor is obliged to purchase the leased assets for a purchase price equal to the aggregate of amounts outstanding under the facility. The documentation normally stipulates that title to the assets does not pass to the obligor until the amounts owed to the financiers have

been discharged in full. However, by exercising the purchase undertaking the financiers will have a claim against the obligor for an amount that is immediately due and payable and will thus have a claim in the proceeds of any security package available in relation to the financing.

In an ijarah-based financing, a total loss of the underlying leased assets (that is, if the assets are destroyed, damaged beyond repair or otherwise completely lost) will have a major impact on the leasing arrangements. Pursuant to Shari'ah principles, a lease arrangement will be terminated with immediate effect upon the occurrence of a total loss of the leased assets (i.e., the underlying assets) and any purchase undertaking with respect to those assets becomes ineffective as a result. In order to mitigate this risk, the financiers typically appoint the obligor as their service agent under a service agency agreement and require it, in such capacity, to maintain insurance with respect to the full replacement value of the leased assets. Upon the occurrence of a total loss, the obligor (as service agent) will be under an obligation, within a given timeframe, to provide the financiers with the proceeds of the insurance. In the event that the proceeds are less than the full replacement value of the assets, the obligor will have failed to comply with its strict insurance obligations (as service agent) under the service agency agreement and will be liable to indemnify the financiers for any shortfall.

In light of the above, the process of a sale and leaseback structure can be summarised as follows:

- i. **Assets sale agreement:** pursuant to an assets sale agreement, the obligor sells certain specified asset it owns to the financiers for an agreed price and the title to and the ownership of the assets is transferred to the financiers;
- ii. **Lease agreement:** the obligor enters into a lease agreement with the financiers for the same assets. Accordingly, the possession of the assets remains with the obligor;
- iii. **Rental payment:** the obligor pays periodic rental payment which can be either fixed or calculated with reference to a market rate (for example, Term SOFR) during the tenor of the financing;
- iv. **Service agency agreement:** the obligor undertakes as agent of the financiers to carry out major maintenance, procure insurance and pay ownership taxes related the leased assets by entering into a service agency agreement with the financiers;
- v. **Purchase undertaking:** the obligor generally provides a purchase undertaking (put option) in favour of the financiers whereby the financiers can oblige the obligor to purchase the assets following the occurrence of one or more designated events or circumstances set out in the purchase undertaking;
- vi. **Sale undertaking:** the financiers are also expected to provide a sale undertaking (call option) pursuant to which the obligor can exercise its right to buy the assets at any time during the term of the financing; and
- vii. **Assets revert to the obligor:** unless a purchase undertaking or a sale undertaking has been exercised and the title to and ownership of the assets has been returned

to the obligor, the financiers transfer the title to and ownership of the assets to the obligor at the end of the ijarah period thorough gift or a sale under the sale undertaking.

This structure was used in 2014 when the government of Pakistan adopted a sale and leaseback structure with the Lahore Motorway (located in Islamabad) being the underlying asset. The sale proceeds of the underlying assets were directed towards the State Bank of Pakistan whereby it was used to reduce domestic debt.

Similarly, in the Ras Al Khaimah sukuk, a sale and leaseback structure was adopted involving a road owned by the government of Ras Al Khaimah. The issuer was a Cayman Islands-incorporated company independent from the government.

While a sale and lease-based structure is widely accepted by Shari'ah scholars for Islamic finance transactions, we are aware that some Shari'ah scholars and Islamic finance institutions consider a sale and lease back structure as a less preferred option for structuring an Islamic finance transaction.

b. Long-term lease and short-term lease (head lease and sub-lease)

Under a long-term lease and short-term lease (head lease and sub-lease) arrangement, instead of entering into an assets sale agreement the obligor and the financiers enter into a long-term (for example 99 or 49 years) lease agreement pursuant to which the obligor leases the underlying assets to the financiers for a longer period. In turn, the financiers enter into to a short-term lease agreement pursuant to which the financiers lease the assets back to the obligor for a period during the tenor of the financing. All other aspects including other related transaction documents (i.e., service agency agreement, purchase undertaking and sale undertaking) are expected to be identical as explained under sale and leaseback structure above. For instance, in Bahrain, a head-lease-sublease structure was adopted allowing the Bahraini government to lease certain vacant land at Bahrain International Airport to the obligor, a Bahraini company established by the Central Bank of Bahrain for the purposes of the transaction, for 100 years.

b. Sukuk al-ijarah

While sukuk are often referred to as "Islamic bonds", they are more akin to Islamic trust certificates, representing an undivided beneficial ownership interest in an underlying asset wherein the return is based on the performance of that underlying asset. The assets themselves may be tangible or intangible provided that they are certain, income-generating and not being used for any non-Shari'ah compliant purposes such as gambling or the sale of alcohol.

The salient features of sukuk are that they are generally asset-based securities, and any profit or benefit derived from the sukuk is linked to the performance of a real asset and the risks associated with the ownership of that asset. Sukuk are therefore distinguishable from conventional bonds, which are bearer negotiable debt securities that pay the holder fixed or floating interest on a periodic basis during the term of the bond. However, sukuk have certain common features with conventional bonds, such as being freely transferrable on the secondary market if the sukuk is listed, paying a regular return, and being redeemable at

maturity. Sukuk therefore have to be linked to an underlying asset (using, for example, an ijarah arrangement) to generate revenues that mirror the coupon payments received under a conventional bond.

The return generated is justified as the certificate-holder has an ownership interest in the underlying asset as represented by the sukuk and is thus assuming ownership risks.

The Bahrain based Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) has identified 14 eligible types of sukuk, of which sukuk al-ijarah and sukuk al-murabahah are the most common. Of these alternatives, sukuk al-ijarah is considered to be the most appropriate structure for asset recycling purposes. A sukuk al-ijarah includes two Islamic finance techniques, namely sale and ijarah. The basic structure and mechanics for an assets sale agreement and a lease agreement in a sukuk al-ijarah is the same as described under paragraph (a) above in the context of a sale and leaseback financing structure.

The Islamic finance industry generally regards sukuk al-ijarah as the classical sukuk structure and it has become the most commonly used structure for issuing sukuk. This structure's popularity stems from its uncontested Shari'ah-compliance and investors' familiarity with the sale and leaseback structure. To structure a sukuk al-ijarah, the obligor needs to have encumbered assets that are commercially leasable (for example, real estate). The rental payments payable to sukukholders can be either fixed or calculated with reference to a market rate, such as Term SOFR.

Sukuk al-ijarah involves the transfer of ownership or benefit/usufruct of tangible assets (such as real estate), from an originator to a special purpose vehicle ("SPV"), which then issues to investors sukuk certificates representing undivided ownership interests in such assets. The asset is then leased back to the originator by the SPV for a specified term, which is typically commensurate with the term of the certificates. Each sukukholder is entitled to receive the rentals generated under the lease pro rata to its ownership interest in the underlying sukuk assets. The amount of these rentals is equal to, and used by the SPV to pay, the periodic distribution amount payable under the sukuk at the relevant time. This amount therefore may be calculated by reference to a fixed rate or variable rate (e.g. Term SOFR) depending on the type of sukuk issued.

On the issuance date, the originator will enter into a purchase undertaking which gives the right to the SPV to oblige the originator to purchase the assets following a sukuk dissolution event or on scheduled maturity, at an exercise price equal to the principal amount plus any accrued but unpaid periodic distribution amounts. The money received by the SPV will be used to pay the dissolution amount due to investors under the sukuk.

A sukuk al-ijarah structure may consist of the following steps:

- i. **Incorporation of a special purpose vehicle:** the originator incorporates an SPV to act as issuer, trustee or agent (as relevant) and lessor;
- ii. **Issuance of sukuk:** the SPV (as issuer) issues the sukuk representing an undivided ownership interest in the underlying sukuk assets;

- iii. **Subscription to sukuk and creation of a trust (or declaration of agency):** the investors subscribe for the sukuk and pay the proceeds to the SPV (as issuer). The SPV declares a trust or agency (as relevant) over the proceeds and began acting as a trustee or agent (as relevant) for the investors;
- iv. **Sale and purchase arrangement of the underlying assets:** the originator (government/ government entity) as seller enters into a sale and purchase arrangement with the SPV, as trustee or agent (as relevant), and transfers the underlying assets to it. The SPV (as trustee or agent), pays the purchase price of the assets, as consideration for the sale, to the originator using the proceeds from the issuance of the sukuk. In the context of an assets recycling financing, it is at this stage where the sukuk assets can be described as being recycled. The originator (typically a government) can ring-fence the purchase price of the sukuk assets and invest it in new or existing infrastructure assets;
- v. **Ijarah (lease back) arrangement:** the SPV (as lessor) then leases the assets back to the originator under ijarah arrangements for an agreed period;
- vi. **Rental payments and periodic distribution amounts:** the originator (as lessee) agrees to make periodic rental payments to the SPV, as lessor and trustee or agent (as relevant). The amount of a rental payment will be equal to the agreed periodic distribution amount to be paid to the investors;
- vii. **Payment of distribution amount:** the SPV (as issuer), uses the rental payments receive from the originator to pay the periodic distribution amounts to the investors;
- viii. **Sale and purchase agreement of the underlying assets at maturity:** At maturity of the sukuk or upon an option call, the SPV (as trustee or agent (as relevant)) will sell and the originator will buy back the underlying assets at the exercise price, which will be equal to the face amount plus accrued but unpaid periodic distribution amounts owing to investors;
- ix. **Payment of the dissolution amount:** the SPV (as issuer) will then use the exercise price it has received to pay the dissolution amount due to the investors under the terms and conditions of sukuk certificates; and
- x. **Reimbursement of servicing costs:** the SPV (as trustee or agent (as relevant)) will appoint the originator as its service agent to carry out or procure performance of the lessor's obligations under the ijarah arrangement which include undertaking, obtaining or paying any major maintenance, insurance, and proprietorship taxes relating to the sukuk assets. In the event that the originator (as service agent) claims reimbursements for servicing costs paid by it, the rental for the subsequent ijarah period will be increased by an amount equivalent to the servicing costs.

Sukuk – asset-backed and asset-based

Sukuk al-ijarah can be categorized into asset-backed and asset-based structure. Although sukuk is generally issued by an orphan SPV, typically the investor will not be bearing an exposure solely to the credit risk of that SPV. Most sukuk transactions in the current sukuk market are primarily

intended to allow the investors to be exposed to the credit risk of the obligor. Sukuk may however be structured as such that investors will not have any recourse to the obligor rather their recourse will be to the segregated and ring-fenced underlying sukuk assets. The connection between the funding arrangement and the underlying sukuk assets to which it relates is fundamental to understand the economic risk of the sukuk and its risk allocation.

Whether (a) the investors will have legal recourse to the underlying sukuk assets (what is generally referred to as an asset-backed sukuk) or (b) the investors only have recourse against the obligor because that transfer of the underlying sukuk assets is not as effective against third parties or the insolvency estate of the obligor (what is generally referred to as an asset-based sukuk) will depend on whether the sukuk assets underlying the funding arrangement has been permanently transferred to the SPV.

In asset-backed sukuk, there is a real (true) sale and absolute transfer of the underlying sukuk assets to the third party which is an SPV. The SPV acts as a trustee or agent (as relevant) on behalf of sukukholders and collects rental from the lessee of the assets and transfer the same to the sukukholders.

The SPV collects money as the issuer of the sukuk and manages the assets, whereas, the ownership of the assets will belong to the sukukholders. Since underlying assets will be separated from the book of originator, there would not be recourse to the obligor. It should be noted that, for asset-backed sukuk to be acceptable from Shari'ah perspective, the underlying assets must be free from any dispute or legal issues, must not have obstacle that void the real transfer of the assets from the obligor to the SPV who act as a trustee or agent (as relevant) on behalf of the sukukholders and must generate cash flow from the underlying assets. Sukukholders own the underlying sukuk assets under an asset-backed sukuk structure and therefore do not have recourse to the obligor if there is a deficit in payment.

On the contrary, the sukukholders do not have the right of ownership of the underlying assets under the asset-based sukuk. If there is a deficit in the payment, the sukukholders have recourse to the obligor not underlying assets as the sukukholders are generally beneficial ownership not legal owner of the underlying assets. Beneficial ownership has rights of the property that belong to a person despite the legitimate title of the assets belongs to someone else. Hence, in such situation, the sukukholders are only guaranteed security interest in the sukuk assets and the sukukholders are recognised as creditors and not owners of the assets.

An asset-backed sukuk al-ijarah permits the holders of sukuk to liquidate the underlying assets in any case of default to recover their investments while asset-based sukuk al-ijarah only represents beneficial ownership on the underlying assets and it limits sukukholders' right in the event of default by the obligor.

In an asset-based sukuk structure, the overriding reliance of the investors is on the credit strength of the obligor rather than the underlying sukuk assets. In an asset-backed sukuk, on the contrary, the return of capital and profit is ultimately based on the underlying sukuk assets themselves. Unlike in an asset-based structure, the investors can be expected to want to try to assess the value of the assets (and the related underlying transaction) themselves.

While most sukuk transactions in the current sukuk market are asset-based, for an assets recycling transaction, asset-backed sukuk al-ijarah structure appears to be more relevant. However, that

does not mean that an asset-backed structure will always be more appealing to investors rather than that would depend on the credit strength of the obligor compared against the value of the underlying assets. Generally, when the sukuk assets are seen to be more bankable than the credit strength of the obligor, investors will prefer asset-backed structures.

Green sukuk as an asset class for assets recycling

It is considered that Islamic finance and ESG (environmental, social and governance) investing are complementary investment approaches sharing significant common ground, such as being a good steward to the society and the environment. Both offer products that appeal to Shari'ah-compliant and non-Shari'ah-compliant investors alike, and hold strong practices and policies that each can learn from the other. There is growing awareness among global investors of the synergy between ESG investing and Islamic finance, contributing to the rising appetite for Shari'ah-compliant investments as investors look for greater portfolio diversification and an alternative to more traditional ESG investments.

Sukuk by their nature are ethical as they cannot be used to finance impermissible activities and they are structured to avoid high degrees of leverage and speculation. Shari'ah compliancy prohibits speculation and demands high levels of transparency, meaning the outcome of transactions must not be entirely dependent on chance and all rights and obligations relating to an investment must be clear.

A green sukuk is a sukuk that is issued to finance assets that benefit the environment, such as renewable energy projects. There are several types of green sukuk, including sovereign (issued by a government) and corporate (issued by a private sector organisation). Green sukuk are Shari'ah compliant investments in renewable energy and other environmental assets. They address Shari'ah concern for protecting the environment. Green sukuk is considered a form of ethical, inclusive and socially responsible finance, because it connects the financial sector with the real economy and promotes risk sharing, partnership style financing, and social responsibility. Green sukuk could be an innovative way of financing green infrastructure. It has the potential to become a new asset class targeting both Islamic and socially responsible investors.

Eligible assets for green sukuk may include solar parks, biogas plants, wind energy, ambitious energy efficiency, renewable transmission and infrastructure, electric vehicles and infrastructure and light rail. The other aspects of an assets recycling through green sukuk will follow the normal course of an assets recycling transaction. That is to say a government can ring-fence the sukuk proceeds collected from the investors in exchange the investors' share in the profit generated from the green assets. Such government can then apply the ring-fenced sukuk proceeds in new or existing infrastructure projects.

Other structured Islamic Finance products

Murabahah based Islamic finance structure could generally be used for almost all circumstances including for an assets recycling transaction. Murabahah is a form of sale where the seller explicitly informs the purchaser of the cost price of acquiring the assets in addition to the seller's profit or mark-up on that cost price. Murabahah is valid only where the exact cost of the assets can be ascertained. If the exact cost cannot be ascertained, the assets cannot be sold on murabahah basis.

The profit in a murabahah can be determined by mutual consent of the parties, either in lump sum or through an agreed ratio of profit to be charged over the cost. All the expenses incurred by the

seller in acquiring the assets (like freight, custom duty or tax) are included in the cost price and the mark-up is applied on the aggregate cost price.

A widely used variation of the murabahah contract is the tawarruq (monetization) structure. Under a tawarruq structure, following the obligor's acquisition of the assets (generally commodities traded on the London Metal Exchange) from the financiers, the obligor appoints an agent (usually one of the financiers, who acts as agent of the financiers in relation to the financing) to sell the same assets to a third party and thereby receives cash.

Islamic Finance product suitability analysis

Islamic finance product	Sale and leaseback	Long-term lease and short-term lease (head lease and sub-lease)	<i>Sukuk al-ijarah</i>	An equity-based / sharing-based structure e.g., <i>musharakah</i>	A sale based structure) e.g., <i>murabahah</i>	A lease-based structure e.g., <i>ijarah</i>	A fee-based structure e.g., <i>wakalah</i>
Can this product be used to facilitate funding via asset recycling?	Yes	Yes	Yes	Yes	Yes	Yes	Not independently
Can this product be used to transfer the control of an asset?	Limited transfer (unless a true sale happens)	Limited transfer	Limited transfer	Limited transfer	Full transfer	Limited transfer	Limited transfer
What is the level of risk for the obligor (the government)?	Low	Mid	Mid	High	Low	Mid	High
What is the level of risk for the financier?	Mid	Low	Low	High	High	Low	Low

Market appetite for this product	Mid	Low	High	Mid	High	Mid	Low
How complex is this product?	To an extent	Complex	Complex	To an extent	Not complex	Not complex	Not complex
Is this product Shari'ah compliant?	Yes (however some Shari'ah scholars / institutions may have some reservations about this structure)	Yes (however some Shari'ah scholars / institutions may have some reservations about this structure)	Yes	Yes	Yes (however some Shari'ah scholars / institutions may have some reservations about this structure)	Yes	Yes
Overall Suitability for Asset Recycling	Suitable	Suitable	Very suitable	Not suitable	Suitable	Suitable	Not suitable

Assets Recycling Process in Islamic Finance

Assets selection and eligibility criteria

(a) **Bankability**

In simple terms, the bankability of an asset refers to the willingness of fund providers to fund against such asset as collateral. Bankability is assessed through a number of factors depending on the nature of the asset, but, apart for the actual value of the asset, most factors revolve around four elements:

- i. **liquidity and marketability:** how quickly and easily can cash be generated from the asset, whether through operating the asset or through disposing of the asset in the market;
- ii. **transferability:** how quickly and easily can the legal ownership and the control over, or possession of, the asset be transferred;
- iii. **appraisability:** how quickly and easily can the asset's worth be evaluated and ascertained; and
- iv. **value stability:** how consistent would the asset's market value be and how widely would its value fluctuate.

It is to be noted that it is not the fund providers nor the commercial banks that make an asset bankable. Rather, it's their role to assess the bankability of an asset and, if found acceptable, provide the funds. As this is a subjective measurement, what constitutes a bankable asset will vary depending on the asset itself as well as the fund provider. In asset recycling, the key aspects that fund providers typically consider when determining if an asset is bankable include:

- i. **Market risk:** The fund providers may ask the following questions to determine market risk of an asset:
 - A. How will the asset's cash flows be earned?
 - B. Is there to be a fixed long-term contract to generate profit from the asset?
 - C. Is there a real market/demand for the asset or is the government the only user / beneficiary of the asset?
 - D. To what extent is the fund provider at risk from price volatility or usage volatility?
 - E. Is the price of operating the asset likely to be an issue?
- ii. **Change in law risk:** The fund providers do not want to be subject to the risk of losing the bankability of an asset as a result of a change in law adversely affecting the asset. This risk is especially relevant where the asset is government owned and subject to public policies. A high traffic toll road could be a perfect example for this. The introduction of a law limiting the tolls that public roads may charge or excluding certain drivers from toll payment will adversely affect the bankability of this toll road.

- iii. **Force majeure risk:** The fund providers may want to see the risk of force majeure events adequately covered and mitigated by:
 - A. Passing the risk to the government;
 - B. Insurance; and
 - C. the establishment of reserve funds
- iv. **Bribery and corruption risk:** The fund providers will be concerned to avoid any reputational damage that they might incur by being associated with assets that are tainted with bribery or corruption in some form.

(b) Single assets versus portfolio of assets

For fund providers, collateralising of a portfolio of assets can rise the probability of repayment and decrease the need to monitor the government (and the related costs). The value of the portfolio of assets is affected by how easily it can be enforced; if collateral is difficult to enforce, it is no longer obvious what creditors can expect to recover. Nonetheless, collateralising a portfolio of assets can in principle allow lending in risky situations that would not otherwise be financed.

For governments, collateralising a portfolio of assets can increase market access and reduce financing costs. But, it can also have negative impacts. The collateralising of a portfolio of assets can raise the risk of debt distress by making it easier to over borrow. Complex collateralisation portfolios can both raise costs and contribute to transparency problems.

Governments should avoid recycling complex forms of portfolios. Greater complexity makes it more difficult to assess all-in costs, especially in countries where capacity is weak. It can also translate into higher transaction costs and legal risks. Complexity can also contribute to non-transparency and corruption. Asset recycling transactions generally involve complex elements, often consist of different related agreements, and may involve additional costs such as export credit agency fees, remuneration of financial intermediaries, legal fees, and non-monetary "costs", such as step-in rights, and other controls over the management and disposal of the recycled asset. Adding to this complex base with other features or complications - for instance, complex collateralization portfolios - is thus highly undesirable.

(c) Standard versus green

Green assets are those assets that have a favourable impact on the natural environment. They can be companies or projects committed to the conservation of natural resources, pollution reduction, or other environmentally conscious business practices. While recycling green assets may attract fund providers keen to support green initiatives, green assets can be as valuable as traditional assets.

Governments can also grant tax incentives such as tax exemption and tax credits, making green assets more attractive for recycling compared to a traditional value comparable asset. These tax advantages provide a monetary incentive to tackle prominent social issues such as climate change and a movement toward renewable sources of energy.

Green assets become of greater relevance in sukuk based asset recycling transaction where the sukuk will be offered to the general public. While this may vary from country to country, individual investors have been found to prefer green investments over traditional investments.

(d) Key eligibility criteria

For any secured fund provider, the recycled asset is of little benefit and cannot motivate improved terms and conditions unless it is enforceable. A government must weigh the benefit of improved borrowing terms against the potential loss of recycled asset, which in some cases could have a significant political impact on the government and society. Enforceability depends on the type of recycled asset and the governing law of the jurisdiction in which it is located. Generally speaking, large escrow accounts in the secured fund provider's jurisdiction are the most readily enforceable (but typically cover only a small portion of the funds), followed by assets which are located outside the governments' jurisdiction (e.g., equity shares in a company). Movable assets (e.g., oil cargoes) can also be subject to enforcement actions. Assets within the government's jurisdiction are typically harder to enforce.

Due diligence process

In any financing transaction, the fund providers generally perform a due diligence exercise over the obligors' business activities and general financial condition to assess the risks of the transaction and, therefore, the likelihood of repayment. However, in asset recycling the fund providers depend more on the revenue stream generated by the asset in question. This nature of asset recycling transactions means that the asset and its revenues will need to ring-fenced to ensure that they remain available for repayment of the funds advanced by the fund providers.

The fund providers in an asset recycling will dig beyond the usually limited balance sheet of the government into the details of the asset's potentially complex web of contractual rights and obligations and government authorisations and consents to gain a full understanding of the economic value of the asset.

As a general rule, an asset recycling due diligence exercise will focus on identifying the matters that could materially affect the economic viability of the asset (for example, potential excessive liabilities on the asset, premature termination of an important offtake or supply agreement or the loss of a key license, authorisation or property right) and the availability and effectiveness of security to be created over the asset to support the financing (for example, whether any provision of the asset related agreements or feature of underlying local law would materially impair the fund providers' available recourse to the asset).

Additionally, the due diligence process should include a Shari'ah compatibility analysis with the aim of identifying and resolving any potential Shari'ah breaches. The Shari'ah compatibility analysis would look into the structure of the transaction, the recycled assets and the transaction documents. In certain countries, an external Shari'ah audit may be required before an asset recycling transaction can be described as being Shari'ah-compliant.

Other than as discussed above, an asset recycling due diligence exercise will generally follow the same process of an investment or privatisation due diligence including:

- (a) appointing external legal, technical, insurance and environmental advisers;
- (b) conducting public searches (such as corporate, insolvency, real property, sanctions, money laundering and financial crime searches);
- (c) preparing due diligence request lists;
- (d) question and answer sessions; and
- (e) interim and final reports.

Governments should be prepared to respond to the due diligence request lists and provide the requested information for the asset recycling due diligence exercise to complete and achieve its goals. If a certain aspect of request lists cannot be addressed or disclosed, reasonable justifications ideally should be provided. Cooperation with the due diligence exercise makes the asset recycling transaction smoother and increases its success likelihood.

Underwriting process

Underwriting has more than one meaning depending on the context in which it is used. In the context of asset recycling through Islamic finance, the financiers (usually the arrangers) which promise to extend the underwritten sum of money to the obligor, if the financing is not fully subscribed at the end of the syndication period.

A financing may be arranged on an underwritten or a best-efforts basis (or best endeavours). If it is underwritten, the underwriting financiers (the "underwriters" and usually also arrangers) guarantee the entire commitment and then syndicate the financing facility. If the financing is not fully subscribed, they will extend the underwritten sum of money to the obligor themselves. An underwritten financing will typically attract higher fees than syndicated financing on a best-efforts basis.

The syndicated financing market is a major contributor to debt finance, particularly for large-scale financing. A syndicated financing is offered by a group, or a syndicate, of financiers to an obligor. When a large financing is needed that a single bank cannot manage alone, a group of banks can pool together and offer a syndicated financing. The benefit of a syndicated financing is that the credit risk is spread over the participants in the syndicate, and the individual bank can participate in a financial transaction it would otherwise not be able to manage alone.

The key players in an assets recycling can be the same as in a typical syndicated financing including lead banks, bookrunners, mandated lead arrangers (MLAS), a coordinator, participant financiers, documentation bank/agent, facility/investment agent, trustee/security agent and credit ratings agencies.

Key structuring issues and legal documentation

(a) Late payment

In the case of a default by the obligor in the payment of any amount on the due date under a financing agreement, the financiers cannot increase the amount due to them in response to the obligor's default and missed payment due date. However, the obligor may be required to undertake in the relevant financing agreements to pay a prescribed amount for a charitable purpose in the case of the late payment in lieu of a fine or equivalent late fee / payment increase. The payment so recovered by the financiers from the obligor shall not

form part of the income of the financiers. The financiers are generally required, as per the principles of Shari'ah, to spend the late payment amount for a charitable purpose on behalf of the obligor after deducting any actual and direct costs incurred by the financiers due to such late payment.

(b) Investment agency agreement and investment agent

Where more than one financier is involved in a financing, it is expected that an investment agency agreement would be entered into between the financiers. Pursuant to an investment agency agreement, the financiers will appoint one of the Islamic finance participants or an external financial institution as their agent in relation to their participation in the financing and (if the financing structure so requires) to hold title to the assets on their behalf and for their benefit. An investment agency agreement includes the financier's and the investment agent's rights and obligations, the funding allocation and disbursement mechanism. While it is not an essential requirement for an obligor to be a party to an investment agency agreement, oftentimes the obligor is made a party to this document. Where the financiers choose to establish an SPV for holding title to the assets, the investment agency agreement may set out provisions for the establishment of the SPV and the rights and obligations of the SPV.

(c) Use of a special purpose vehicle (SPV) by financiers

The financiers may choose to use a special purpose vehicle ("SPV") to act on their behalf in an Islamic finance transaction. As Islamic finance is an asset-based or asset-backed financing, the use of an SPV in certain types of Islamic finance structures may provide certain benefits to both the financiers and the obligor. In the case of the financiers, they are protected from the risks associated with the ownership of the underlying assets; for example, environmental liability. In the case of the obligor, because the assets are not held by the financiers directly, the obligor and the assets are isolated from the risk of insolvency of a financier.

The use of a SPV may also help overcome issues preventing foreign ownership (in jurisdictions where such restrictions apply). However, incorporating an SPV could be time consuming and administratively burdensome. Also, the parties may not agree to incur the relevant costs involved in incorporating an SPV. The use of an SPV may raise some structuring issues related to the impact of the intervening SPV on the contractual relationships between the financiers and the obligor. Holding title to the underlying assets by an SPV may also have some tax implication in some jurisdictions. Accordingly, proper due diligence will be conducted before using an SPV in the financing structure.

(d) Common documents in an asset recycling transaction

Set out below are a list of transaction documents which are generally common in a financing transaction where two or more financiers extend financing on separate financing arrangements to an obligor:

- i. **An intercreditor agreement:** if the obligor chooses to obtain financing from two or more financiers on separate financing arrangements, or from both conventional and Islamic financiers, the rights of each set of financiers (including the Islamic financiers'

rights to take any enforcement action in relation to the assets) may govern by the terms of an intercreditor agreement entered into between all such financiers. An intercreditor agreement generally regulates the respective rights and ranking of different sets of financiers in a financing. Usually an intercreditor agreement regulates, among others, two sets of rights: (i) prior to any enforcement of security, the rights to receive payments (such as principal, profit and fees) from the debtor, and (ii) the rights to enforce security over the assets of the debtor (i.e., the obligor); and

- ii. **A common terms agreement:** where both conventional and Islamic financiers or two or more different sets of financiers extend financing on separate financing arrangements to a obligor for the same transaction, different sets of financiers may choose to have a common terms agreement which typically includes common provisions applicable to all such financing arrangements. A common terms agreement generally sets out the terms that are common to all the financing arrangements and the relationship between them (including definitions, conditions, order of drawdowns, project accounts, voting powers for waivers and amendments). A common terms agreement greatly clarifies and simplifies the multi-sourcing of finance for a project and ensures that the parties have a common understanding of key definitions and critical events related to the obligor and the project or the transaction.

(e) Tax issues for Islamic Finance

As Islamic finance is an asset-based / asset-backed financing, Islamic finance transactions often require multiple title transfers of underlying assets, which may trigger double or even triple tax charges in some jurisdictions. Because of the tax implication, utilizing certain Islamic finance products could be costly and uneconomical in some jurisdictions.

Certain jurisdictions have made some changes to their tax laws to create a "level playing field" so that Islamic finance products are taxed in the same way as equivalent conventional financial products. In some jurisdictions, certain Islamic finance structures are favored over other structures due to the tax implications which need to be carefully examined on a jurisdiction-by-jurisdiction basis.

Both the provider and recipient of an Islamic finance facility should carefully consider tax issues before choosing an Islamic finance product and the structure involved in implementing such product. Furthermore, it needs to be carefully considered whether any payment related to an Islamic finance transaction would be subject to withholding tax as well as whether an Islamic finance mechanism should be accounted for as a debt financing arrangement or otherwise both for the obligor and for the financiers (in terms of accounting and tax deductibility purposes).

(f) Shari'ah compliant hedging

Hedging in general is permitted by the principles of Shari'ah. From an Islamic finance point of view, hedging is an attempt by a party to mitigate or reduce the level of risk inherent to a financing transaction. Many forms of Islamic hedging instruments have been developed in recent years. Shari'ah compliant hedging instruments currently available in the market include Islamic forward FX, Islamic options, Islamic profit rate swaps and Islamic currency swaps.

The Bahrain-based International Islamic Financial Market (IIFM) and the International Swaps and Derivatives Association (ISDA) have jointly developed certain types of Shari'ah compliant hedging instruments (including, Islamic foreign exchange forward, Islamic cross-currency swaps and profit rate swaps) which are reported to be widely used by market participants.

In an Islamic finance transaction, the financiers may require that an obligor use one or more Shari'ah compliant hedging instruments to mitigate certain risks (e.g., currency or profit rate) related to the obligor's obligations under such financing. A financier may also hedge its own exposure to a financing transaction.

(g) Takaful or Shari'ah compliant insurance

Takaful or Shari'ah compliant insurance is a form of insurance based on principles of mutuality and co-operation, encompassing the elements of shared responsibility, joint indemnity, common interest and solidarity. Some Islamic financiers may require that the insurance to be procured by an obligor be placed with Shari'ah compliant insurers on a takaful basis if adequate and viable relevant insurance cover is available from satisfactory and creditworthy insurers on commercially reasonable terms.

Whilst takaful products have been available in the market for some time, only a handful of institutions may offer takaful products relevant to an asset recycling transaction. The Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), a member of the Islamic Development Bank Group (IsDBG), is a pioneer in this respect, and is leading the efforts of offering insurance service to cover sovereign risk based on takaful principle.

While the use of takaful is recommended, Shari'ah scholars allow conventional insurance to be used in a transaction that are financed wholly or partially by Islamic finance if Islamic insurance products are not available or are not economically feasible.

(h) Legal documentation for sale and leaseback transaction

The following legal documentation are expected to be required to implement a sale and leaseback transaction:

- i. **an assets sale agreement:** pursuant to an assets sale agreement between the obligor and the financiers, the obligor sells the underlying assets to the financiers (or to a special purpose vehicle for the benefit of the financiers);
- ii. **a lease agreement:** pursuant to a lease agreement, the financiers (as owner of the underlying assets) lease the underlying assets to the obligor for periodic rental payments (which include both principal amount of the financing and profit on the same);
- iii. **a service agency agreement:** pursuant to a service agency agreement, the financiers appoint the obligor as the service agent to: (i) carry out structural, major maintenance and repair of the underlying assets; (ii) procure insurance against all risks related to the underlying assets; and (iii) pay ownership taxes relating to the underlying assets. The financiers, in their capacity as lessor in relation to a lease

financing transaction, are required to bear the aforementioned costs. However, such costs will be a component of the lease rental payments payable by the obligor under the lease agreement;

- iv. **a purchase undertaking:** a unilateral purchase undertaking (put option) is required to be provided by the obligor in favour of the financiers pursuant to which in the case of: (i) an illegality, (ii) a mandatory prepayment, or (iii) the occurrence of an event of default, the obligor undertakes to purchase the underlying assets from the financiers at a purchase price to be determined in accordance with a pre-agreed formula; and
- v. **a sale undertaking:** a unilateral sale undertaking (call option) is required to be provided by the financiers in favour of the obligor pursuant to which the financiers undertake to sell the underlying assets or part thereof in the case of: (i) a cancellation of participation for a single facility participant; (ii) a voluntary early payment (in full or part) of the financing facility by the obligor at a price to be calculated in accordance with a pre-agreed formula; or (iii) full and final maturity of the financing facility at a nominal price.

(i) Legal documentation for long-term lease and short-term lease (head lease and sub-lease) transaction

The following legal documentation are expected to be required to implement a long-term lease and short-term lease (head lease and sub-lease) based transaction:

- i. **a long-term (head) lease:** pursuant to a long-term (head) lease agreement, the obligor (as owner of the underlying assets) leases the underlying assets to the financier (either to an agent of the financiers or an special purpose vehicle to be incorporated for the purpose of a financing) for a long-term (for example, 99 or 49 years or any other long period agreed between the obligor and the financiers) for a onetime lump sum amount (which is the equivalent to the agreed financing amount to be provided by the financiers to the obligor). For a long-term (head) lease agreement, the lessee / the financiers (being the owner/holder of the long-term usufruct of the underlying assets) may be required to undertake to: (i) carry out structural, major maintenance and repair of the underlying assets; (ii) procure insurance against all risks related to the underlying assets; and (iii) pay ownership taxes relating to the underlying assets (together the "Assets Related Obligations"). The obligor and the financiers may also agree that the obligor (being the ultimate owner of the underlying assets) retain the Assets Related Obligations;
- ii. **a short-term (sub) lease agreement:** pursuant to a short-term (sub) lease agreement, the financiers (as the owner/holder of the long-term usufruct of the underlying assets acquired pursuant to the long-term (head) lease agreement) lease the underlying assets to the obligor for a shorter period on a periodic rental payment (which include both principal amount of the financing and profit on the same) basis;
- iii. **a service agency agreement:** to the extent the financiers are required to perform the Assets Related Obligations under the long-term (head) lease agreement, the

financiers pursuant to a service agency agreement may appoint the obligor as the service agent to perform the same Assets Related Obligations. The financiers' costs for performing the Assets Related Obligations through the obligor (as service agent) will be a component of the lease rental payments payable by the obligor under the short-term (sub) lease agreement;

- iv. **a purchase undertaking:** a unilateral purchase undertaking (put option) is required to be provided by the obligor in favour of the financiers pursuant to which in the case of: (i) an illegality, (ii) a mandatory prepayment, or (iii) the occurrence of an event of default, the obligor undertakes to purchase the long-term usufruct of the underlying assets from the financiers at a purchase price to be determined in accordance with a pre-agreed formula; and
- v. **a sale undertaking:** a unilateral sale undertaking (call option) is required to be provided by the financiers in favour of the obligor pursuant to which the financiers undertake to sell the long-term usufruct of the underlying assets or part thereof in the case of: (i) a cancellation of participation for a single facility participant; (ii) a voluntary early payment (in full or part) of the financing facility by the obligor at a price to be calculated in accordance with a pre-agreed formula; or (iii) full and final maturity of the financing facility at a nominal price.

(j) Legal documentation for sukuk al-ijarah transaction

In addition to the documents listed under "Legal documentation for sale and leaseback transaction" above, the following documentation are expected to be required for a sukuk al-ijarah transaction:

- i. **a declaration of trust / agency agreement (as relevant):** pursuant to a declaration of trust / agency agreement, the financiers will appoint one of the financiers or an external financial institution as their trustee / agent in relation to their investment in the sukuk al-ijarah and to hold the sukuk assets in trust / as agent for and on behalf of the sukukholders (i.e., the financiers) and the sukuk will represent an undivided ownership interest of the sukukholders in the sukuk assets;
- ii. **a payment administration agreement:** pursuant to a payment administration agreement, the obligor (as issuer) and the sukukholders' trustee / agent (on behalf of the sukukholders) will appoint a payment administrator and an account bank to record certain agreed arrangements in relation to the payments to be made in respect of the sukuk; and
- iii. **a placement agency agreement:** pursuant to a placement agency agreement, the obligor (as issuer of the sukuk) will appoint one or more banks and/or financial institutions as joint lead managers (or arrangers, bookrunners and/or underwriters) as its agent for the purposes of coordinating the placing, the distribution of the sukuk and/or underwriting the sukuk.

Incorporating sustainability and green standards into Islamic finance products

Islamic finance is based on assumptions of fairness and social responsibility and the fundamentals of Islamic finance share a lot with sustainable finance in terms of custodianship of the earth and responsible and ethical financing. The prospects of Islamic green finance are tremendous. Shifting trends of many institutional investors towards becoming responsible investors reflect that the demand is on an upward trend. There is an optimistic outlook on the gradual but steady growth of Islamic green finance as a broad range of investors are showing continuous interest in green investment products. Islamic finance can be a catalyst for the growth of green developments globally.

The concepts of Islamic and green finance have the commonalities that are deeply rooted in the underlying principles of Islamic finance that make clear requirement for the protection of the environment. Furthermore, the Islamic green finance market serves itself as a new marketplace where economic, political and social agents representing different roles and capacities come together. These different agents' interests converge into a shared goal in supporting sustainable growth.

Islamic green finance however has to deliver innovative products to set future trends in sustainable financing. Such innovation must be harnessed by having more potential green project issuers coming into the market through creating different types of products and projects. Incorporating sustainability and green standards could be done by establishing a green Islamic finance standard similar to the European green bond standard.

Regulations can set a standard for how companies and public authorities can use Islamic finance including green sukuk to raise funds through assets recycling or on capital markets to finance large-scale investments, while meeting tough sustainability requirements and protecting investors. This will be useful for both obligors/issuers and investors of green assets recycling or green bonds. For example, issuers of green bonds will have a robust tool to demonstrate that they are funding legitimate green projects aligned with the EU taxonomy.

Green bonds, unlike its counterpart green sukuk, are increasing in issuance growth. In contrast, green sukuk is heading over the opposite direction. There are many reasons as to why this is the case such as the high issuance cost and limited but growing opportunities to fund decarbonization projects. However, there has been growing optimism in this regard since Shari'ah compliant investors would have no choice but invest in green sukuk rather green bonds in the future as more projects arise and grow.

Despite the down turns, efforts have been made with new projects appearing annually. The Islamic Development Bank ("IsDB") has been one of the leading Islamic financial institutions to promote and participate in green and sustainably sukuk. In accordance with its US\$25 billion sukuk issuance programme, this multilateral entity raised EUR 1 billion from its 5-year sukuk issue under the programme. The IsDB were to use the proceeds from the first green issuance to fund a variety of green and climate change projects in its 57 member nations. Projects for sustainable water and wastewater management, clean transportation, energy efficiency, pollution prevention and control, and environmentally sound management of natural resources and land use are among these.

Case Studies on Islamic Finance for Asset Recycling

Malaysia

In Malaysia, the birthplace of sukuk in the 1990s, the Securities Commission Malaysia introduced the Sustainable and Responsible Investment Sukuk Framework in 2014. This was followed by the issuance of the first social impact sukuk by its sovereign wealth fund, Khazanah Nasional Berhad.

In 2017, Bank Negara Malaysia issued the Value Based Intermediation (VBI) strategy paper, and two years later, Malaysia's Islamic fund manager, BIMB, signed the UN-supported Principles for Responsible Investment (UNPRI) to incorporate ESG into investments. In 2017, renewable energy group Tadau Energy issued the first "green" sukuk, raising US\$ 59 million to finance a solar power plant in Malaysia.

Case Study: Solar Sukuk Programme – Quantum Solar Park (Semenanjung) Sdn Bhd

Quantum Solar Park (Semenanjung) Sdn Bhd ("QSPS"), a special purpose vehicle, issued the largest solar project linked to green sukuk. The proceeds from the sukuk issuance will be used to build three large-scale solar photovoltaic plants in the states of Kedah, Melaka and Terengganu in Malaysia at a total cost of RM 1.25 billion. The projects are collectively expected to generate and supply about 282,000 MW of electricity annually to Malaysia's electric utility company, Tenaga Nasional, under the respective power purchase agreements over a period of 21 years. The projects will cover a combined land area of almost 600 acres. In terms of social impact as well as the sustainability aspects of the projects, it is expected to reduce 193,000 tons of carbon per year. This is enough to power up about 90,000 over homes as well as create 3,000 jobs.

The assets used for this project were Shari'ah-compliant commodities (excluding ribawi items in the category of medium of exchange such as currency, gold and silver) which are provided through Bursa Suq alSila'.

The parent company, Itramas Corporation Sdn Bhd, has been in green projects for the last 18 years. Hence, going green is something that the issuer aspires to do as part of the company's philosophy. The issuer had a very short timeframe to construct these plants because the government authority had identified this project as a fast-track project category. The main concern was how long it would take to get the certification, the social impact study and the environmental impact study done in order to be labelled as green.

One of the questions that arose was how to tranche the sukuk because the project consists of three separate plants as the power purchase agreements were signed separately. QSPS decided to combine the three projects and put it on the holding company and issuer of the company. The long tenor sukuk (with 36 tranches from one year notes up to 18-year notes) suits especially the independent power producer projects where the return of investment or payback period takes more than 10 years.

Indonesia

Indonesia is the world's fourth most populous country with a population of 262 million. The country has extensive tropical landscape and seascape, high biodiversity and high carbon stock values and resources; susceptible to climate-induced disasters. For this, Indonesia is strongly committed to combat climate change and ratified the Paris Agreement in 2016 and submitted its Nationally Determined Contributions. The Indonesian government has shown support through developing the Nawacita programme with nine priority actions on shifting to a low-carbon and climate-resilient development path that needs to be integrated in development policies, strategies, and programmes.

The transaction managed to attract specific green investors given Indonesia's commitment to environmentally friendly projects, on top of positive investor feedback on Indonesia's credit story. It is worth noting that green sukuk proceeds have financed and re-financed projects across five sectors: renewable energy, energy efficiency, sustainable transportation, waste to energy and waste management, as well as climate resilience for vulnerable

areas in Indonesia. The proceeds have been invested in projects that contributed towards reducing greenhouse gas emissions - projected to be up to 10.3 million tons of CO₂e (carbon dioxide equivalent), the construction of over 690 kilometers of railway tracks; an increase of 7.3 million kWh of electricity capacity and improving solid waste management for more than 7 million households.

Case Study: Sovereign Green Sukuk

The issuance of Indonesia's US\$ 1.25 billion five-year sukuk (in March 2018) is the world's first sovereign green sukuk. That issuance is part of US\$ 3 billion issuance that Indonesia managed to implement when it developed the sukuk within two months with the assistance of the World Bank. It was issued under the Indonesia's Green Bond and Green Sukuk Framework. The underlying sukuk assets in Indonesia's Sovereign Green Sukuk under this issuance consists of state-owned assets including land and buildings (accounting for 51% of the asset pool) and project assets which are under construction or to be constructed (accounting for the remaining 49% of the asset pool).

The response for the Indonesia's green sukuk deal was overwhelming. It was oversubscribed by 2.4 times for the deal and was well distributed among investors. Green sukuk was also able to tap beyond Shari'ah investors. About 32% allocated for Islamic investors were from the Middle East and Malaysia, and about 25% allocated for Asian investors, excluding Indonesia and Malaysia. A sum of 18% allocated to US investors, 15% to European investors and 10% allocated for Indonesian investors. The Indonesia's green sukuk has tapped new green investors of about 29%.

United Arab Emirates

UAE's Majid Al Futtaim listed the world's first benchmark corporate green sukuk and first green sukuk issued by a corporate in the Middle-Eastern region with the following unique features:

- (a) Region's first corporate green sukuk and valued at US\$ 600 million;
- (b) Investment to be used for financing existing and future green projects; and
- (c) Issuance is a key milestone towards the retail conglomerate's 2040 net positive goals.

Majid Al Futtaim launched its first green sukuk in May 2019, raising US\$ 600 million at a coupon rate of 4.637% with due date in May 2029. The second green sukuk was launched in October 2019 raising US\$ 600 million at a coupon rate of 3.9325% and with due date in February 2030. Both sukuk were issued under a sukuk programme called the Majid Al Futtaim Sukuk Ltd US\$ 3,000,000,000 Trust Certificate Issuance Programme.

The underlying sukuk assets in **Majid Al Futtaim's sukuk** included hotels (such as the Aloft Hotel and the Hilton Garden Inn), offices (such as the Majid Al Futtaim Towers in the UAE) and a number of their shopping malls (including Almaza City Center in Egypt and the Mirdif City Center in the UAE).

The issuance of the sukuk showcases Majid Al Futtaim's commitment to sustainable green projects that support moving to a low-carbon more sustainable economy. The inaugural transaction marked the first ever green corporate capital markets offering from the Middle East and North Africa (MENA) as well as the first ever benchmark corporate green sukuk. The sukuk falls in line with Majid Al Futtaim Net Positive strategy, launched in 2017. The strategy aimed to significantly reduce the company's water consumption and carbon emissions to the extent that it puts more back into the environment than it takes out, resulting in a positive corporate footprint by 2040.

The investment is used to finance and refinance Majid Al Futtaim's existing and future green projects, including green buildings, renewable energy, sustainable water management, and energy efficiency.

With the green sukuk listing, the value of all debt instruments listed on Nasdaq Dubai (which is a Dubai-based stock exchange that lists regional and international shares in the Middle East) by Majid Al Futtaim has reached US\$ 2.4 billion.

Way Forward for Countries to Tap into Asset Recycling Through Islamic Finance

Key regulatory issues

From a regulatory point of view, the key considerations for financiers of an assets recycling transaction may include certainty of legal system, clarity of tax law and recognition of foreign court judgment or arbitral award. Financiers are expected to consider, amongst others, the following before participating in an asset recycling finance transaction:

- (a) What type of government authorisations, approvals, permissions or consents would be required for their financing? Will there be any fees and charges applicable to their financing?
- (a) Under certain jurisdictions, specific authorisations and approvals would be necessary for a financing to take place, and it is not uncommon for fees to be applicable. Therefore, it would be common practice for financiers to consider any such required authorisations, the applicable fees to obtain such authorisations and any recurring payment obligations in relation to such authorisations.
- (b) Is there any restriction in incorporating a special purpose vehicle (SPV) by the financiers to hold title to the underlying assets?
- (c) Some jurisdictions impose specific restrictions in relation to incorporating SPVs by financial institutions (more so in the case of offshore SPVs). Financiers should therefore consider whether such restrictions exist and how to overcome them.
- (d) What type and percentage of tax (withholding or on profit or otherwise) would be applicable to their financing? Tax implications can be a primary driver of the structure of transactions. It is common practice for financiers to consider tax implications at an early stage of any assets recycling transaction.
- (e) Would the financiers be required to register or file their financings or finance documents with any government authority or otherwise comply with any legal formalities to make the same valid or enforceable? This is common for security documents. Thankfully, many jurisdictions have established online portals where such documentation can be registered.
- (f) Is there any requirements for financing agreements be prepared or translated in the local language in order for validity and/or enforcement? This requirement is applicable at two levels: (i) when entering into an agreement where some jurisdictions impose language formalities requiring a document to be in a certain (usually the official local) language to be valid, and (ii) when enforcing a document where courts/enforcement agencies may only accept documents in certain languages or translations into that language.

- (g) Whether the finance documents would need to be notarised for their validity and/or enforceability? Certain jurisdictions require certain documents to be executed before a notary or other witnesses for their validity and enforceability.
- (h) Is there any restrictions on transferring funds in foreign currencies? Certain jurisdictions require prior approvals from their central banks for transferring funds or making any transaction in foreign currencies.
- (i) Would a foreign judgement or an international arbitration award be recognised and enforced by local courts? Foreign judgements are not always enforced by local courts. This is especially important when the assets recycling transaction involves a foreign element, be it a party of the recycled asset itself.
- (j) Would the choice of foreign law (for example, English law or the law of New York) as governing law for finance documents be recognised or permitted?
- (k) Would a submission to a foreign jurisdiction and a waiver of immunity be effective and enforceable?
- (l) How courts would apply judgments in order to be able to ring-fence cash flows both prior to and after any default?

The answers to the questions above will (i) determine the shape and structure of the asset recycling transaction, (ii) help with balancing the obligation and rights of the parties involved and (iii) make clear the risks the parties are exposed to. Islamic finance practitioners (including the financial institutions, law firms, accounting firms and financial advisers) regularly navigate through these considerations and ought to be the first point of contact for any government considering raising funds through recycling its assets or otherwise.

Key institutional / capacity issues

In relation to an assets recycling transaction the key institutional / capacity considerations may be summarised as below. It has been observed that when and where the considerations below are achieved in a country, the probability of the success of an asset recycling transaction and then the adoption of an asset recycling programme is multiplied and vice versa for the lack of these items:

- (a) government leaders with decision-making power support an assets recycling plan and the relevant asset recycling transaction under such plan;
- (b) identifying appropriate public assets to potentially monetize for an asset recycling transaction;
- (c) having a supportive regulatory framework in place that is conducive to asset recycling purposes;
- (d) regular public-private engagement so that there will be strong public support for an asset recycling transaction and more comfort for the private sector financiers;
- (e) carefully considering and observing any national security concerns before launching an asset recycling transaction;

- (f) having a trained and dedicated workforce to operate and manage the operation of the underlying assets; and
- (g) having competitive and private sector environment with availability of capable players and potential local and international financiers

Key commercial issues

Key commercial issues in a Shari'ah compliant asset recycling transaction have been summarised below. These issues have some time discouraged parties from entering into certain transactions. In some instances, such discouragement can and have been resolved but in others it has completely obstructed the transaction.

- (a) lack of sufficient recyclable Shari'ah compliant asset which are owned by the obligor;
- (b) disagreement on the valuation mechanism upon which the underlying assets will be evaluated;
- (c) material discrepancy between the value of the underlying assets and the value of the proposed financing;
- (d) the existence of environmental or social issues related to the underlying assets;
- (e) disagreement on the financing structure between the obligor, the financiers and the Shari'ah compliance officers;
- (f) lack of private sector interest in the underlying assets;
- (g) high insurance costs in relation to the underlying assets;
- (h) unstable currency risks;
- (i) inadequate cash flow from the underlying assets which do not satisfy debt service and principal payment obligations;
- (j) unreasonable expectations by government authorities in relation to the applicable fees and pricing of the financing which are not in line with general market practice;
- (k) lack of sophisticated trained personnel allocated to execute the transaction pre- and post-closing or the anticipation of labour unrest;
- (l) expectations of unsatisfactory ratings from the reputable credit rating agency(ies); and
- (m) public sentiment (such as cultural value) that is attached to the underlying assets.

Action plan

An action plan for an Islamic finance based assets recycling transaction is not expected to be significantly different from its conventional counterpart. Furthermore, generally asset recycling practitioners (including arrangers, underwriters and financial, legal, technical, environmental or insurance advisors with assets recycling capabilities) should be able to advise on and participate in Islamic finance based assets recycling transactions as the intended purpose and end result of a conventional assets recycling transaction mirrors that of an Islamic transaction. Nonetheless, the key steps of an assets recycling transaction action plan can be summarised as follows:

(a) Steps to be taken by the obligor

- i. identifying the obligor's funding gap;
- ii. identifying the underlying (Shari'ah compliant) assets;
- iii. obtaining valuation of the underlying assets (if required and to the extent possible);
- iv. appointment of the obligor's financial advisor (if required);
- v. appointment of the obligor's legal advisor (if required) and the legal advisor for the financiers;
- vi. appointment of lead arrangers and underwriters for the transaction;
- vii. appointment of technical, environmental, insurance and any other advisor (to the extent required in relation to the transaction) and receiving reports from such advisors and any major issues identified in any advisor's reports are addressed and satisfied to the reasonable satisfaction of the financiers;
- viii. preparation of an information memorandum for the proposed assets recycling transaction with the assistance of the financial advisor (to the extent a financial advisor is appointed in relation to the transaction);
- ix. preparation of a financial plan or financial model (to the extent required) in consultation with the financial advisor (to the extent a financial advisor is appointed by the obligor);
- x. considering a financing structure for the proposed transaction (with the assistance of the financial advisor and the legal advisor (to the extent a financial advisor and / or legal advisor are appointed by the obligor in relation to the transaction));
- xi. preparation of a financing term sheet for the proposed transaction with the assistance of the financial advisor (to the extent a financial advisor is appointed in relation to the transaction);
- xii. preparation and / or obtaining of authorisation, approval, consent, permit or any other document required in relation to the transaction; and
- xiii. agreeing key dates (including signing date, CP satisfaction date and utilisation date) in consultation with the lead arrangers and underwriters and other key stakeholders;

(b) Steps to be taken by lead arrangers and underwriters

- i. selection of the participating banks and their respective participation amount in the proposed assets recycling transaction; and
- ii. appointment of agent, security agent/trustee, account bank, documentation bank and for any other role in consultation with the obligor;

(c) Legal documents, execution, CP satisfaction and utilisation

- i. working with the financiers' legal advisor for the preparation and finalising of the legal documentation for the transaction;

- ii. complying with the execution formalities of the finance and other transaction documents;
- iii. satisfaction of the conditions precedent requirements (including signed and dated finance, security (if any) and other transaction documents; all required authorisations, approvals, consents and permits are in place; all perfection steps and requirements (including sending notices to relevant third parties and obtaining acknowledgements from such third parties, registrations of the relevant security documents with the relevant authorities) are satisfied; all "know your customer" and anti-money laundering requirements are in place) in relation to the assets recycling transaction;
- iv. submission of the utilisation documents for utilisation of the funding; and
- v. satisfaction of the condition subsequent requirements (to the extent there are any condition subsequent requirements to the financing).

Module 10 - Elements for Governance of Project Company (JV)

There are various ownership models that may be applied to an asset recycling transaction. Most commonly, an asset recycling transaction is effected by way of the "Concession/ Lease Model" whereby the transaction is implemented through a newly established Indonesian limited liability company formed by the selected private sector investor as a special purpose vehicle (the Project Company).

A variation to the Concession/ Lease Model is the Joint Venture ("JV") model whereby the Relevant Authority holds an interest in the JV SPV/Project Company as a shareholder together with the private sector investor(s).

The JV model involves specific governance considerations given the Relevant Authority shareholding and involvement and the perceived risks of misalignment of interests between the private investor(s) who are meant to come in as a shareholder of the joint venture company ("JVCo") against the payment of an asset recycling upfront fee (and will therefore have certain return on investment requirements) which will not be the case of the Relevant Authority.

This checklist sets out some of the key aspects relating to the governance of the future joint venture company which an SOE contemplating to prepare and enter into an asset recycling transaction on the basis of the JV model should bear in mind and seek to address together with its transaction advisors at the transaction preparation stage.

In asset recycling transactions involving the JV model, the SOE should consider setting out the key terms and its position on the items of this checklist in a term sheet of JV key terms and conditions specifically developed for the Asset to help interested parties/investors take an informed view of the asset recycling transaction and opportunity and help them to formulate a competitive bid. Ultimately, these key terms would be reflected in the shareholders' agreement ("SHA") between the SOE (or its relevant affiliate) and the private investor(s) appointed as joint shareholders pursuant to the JV partner procurement process.

Checklist of JV Key Terms and Conditions

S. No.	Matter	Description	Key considerations
JVCo constitution			
1.	Shareholding	The shareholding in the JVCo is to be determined to reflect the interests of the parties (private investor(s) and SOE)	<p>The private investor(s) will have a strong preference if not a strict requirement to have control over the JVCo. Depending on the specific context of the Asset and sector, this may also involve having qualified majority rights (i.e. more than 66.2/3%) to be in a position to determine largely alone the strategy of the JVCo and for the operation of the Asset but this would largely depend on the proposed arrangements for the governance of the JVCo (see items 6 to 12).</p> <p>Alternatives to this could include scenarios where the private investor party will have a minority shareholding (for ex. 49%) but operational control or joint control over the JV and asset.</p> <p>One of the considerations for the shareholding percentage of the respective parties (private and SOE initiator) will be whether the relevant business activity of the JVCo is subject to any foreign ownership limitations.</p>
2.	Shares	Class of shares and rights attached to shares	<p>Besides the point above about the shareholding percentages in JVCo, another aspect of governance and the rights of the shareholders (private investor(s) and SOE) over the JVCo may derive from the types of shares in JVCo that can be issued.</p> <p>The SOE should consider the governance of JVCo as a whole (including actual shareholding, the types of rights associated with JVCo's shares and the general decision making process within JVCo) and consider whether all shares will rank equally and with the same rights and obligations attached to them or whether it is preferable to have different classes of shares to allow certain enhanced rights in favour of a Shareholder (the private investor(s) for example).</p>
3.	Conditions Precedent	Conditions Precedent to be fulfilled by the shareholders (private and public) for the JVCo structure to become effective	<p>The SOE will need to determine whether the circumstances of the Asset or the particular asset recycling transaction require any conditions precedent to be fulfilled by the selected investor or the SOE itself. This may be the case for example where certain approvals might be required for the Asset to be transferred into JVCo and if JVCo is to apply for and hold certain material permits required to own and operate the Asset.</p> <p>If any of the conditions precedent are not satisfied or waived by a suitable date to be nominated by the parties, either party would typically be able to terminate the SHA.</p>
4.	Nature of Business and Objectives	Purpose of JVCo should be defined	The SOE will have to determine and describe the activities and business which the JVCo may engage in. This would

			typically be limited to operating (and potentially re-developing, expanding, renovating,...) the Asset.
5.	Commitment	Level of commitment required by each shareholder	<p>Private investors will typically expect where there is a shareholder which is designated by an SOE (including potentially the SOE itself) that the SOE shareholder will be responsible to support the JVCo in relation to any matters which involve or depend on government institutions or other SOEs (such as permits and licences, project and tax incentives, certain types of land rights,...).</p> <p>The SHA would typically set out the level of commitment required from each Shareholder with regards to running the Business as well as any specific responsibilities of each Shareholder (for example, will the SOE Shareholder provide any supporting services or assign any existing contracts to JVCo?).</p>
GOVERNANCE			
6.	JVCo Board	Composition of JVCo Board	<p>The SOE will have to consider the composition of the Board of Directors ("BOD").</p> <p>It is likely that the private investor(s) will require/desire to have control over the BOD which is responsible for the overall management and operations of the JVCo through its oversight of the Executive Team.</p>
7.	President Director	Who appoints the President Director?	<p>It is likely that the private investor(s) will require to have the right to appoint the President of the JVCo given its role as primary executive of the company in charge of overseeing its operations.</p> <p>A further point to consider is the level of authority and discretion delegated to the President and matters which require JVCo being represented by more than 1 director (possibly a joint representation of directors appointed by each Shareholder) or the BOD.</p>
8.	Board meetings	Agree initial governance mechanisms for JVCo's Board meetings	Depending on the actual shareholding of JVCo (see item 1 above), the SOE should consider whether specific quorum and voting requirements should be provided for strategic matters which allow the representative (directors or commissioner(s)) of the SOE to be involved in the decision process on those matters. Examples of points to be considered include (i) whether certain matters require quorum and decision to be fulfilled by representatives of both/all shareholders (i.e. from the private investor(s) and SOE) and (ii) whether the President has any tie-breaking vote.
9.	Executive Team	Appointment of executive team to manage daily operations of Business	In addition to the BOD, the SOE should consider the composition of the executive team and whether it wants to be able to appoint some of the executives of the JVCo (such as for example the head of human resources, the chief financial officer or any other critical operational executive function). Here again, it can be expected that the private investor(s) will prefer to have as much control as possible

			over the functioning of JVCo and that any departure from this principle will have an impact on valuation.
10.	Executive Powers	Powers of the executive team	<p>The SOE should consider the powers and responsibilities of the executive team which would typically be in charge of: the day to day management of the Business of JVCo and the Asset;</p> <p>preparing and submit to the BOD a business/working plan and budget each financial year; implement the business/working plan and budget adopted by the BOD;</p> <p>be authorised for other expenses up to a certain threshold (beyond which BOD approval is required).</p>
11.	Shareholder meetings	Agreement on matters to be determined by shareholders only	The SOE should consider matters which should be decided by the shareholders with the meeting quorum above the minimum quorum matters provided under the applicable laws.
12.	Voting and Decision Making	Matters requiring unanimous approval of Board/Shareholders (Reserved Matters)	<p>The SOE should consider matters which require unanimous approval of shareholders with the meeting quorum above the minimum quorum required under applicable laws.</p> <p>This would typically include:</p> <ul style="list-style-type: none"> • the appointment of an administrator or liquidator to JVCo or any proposal to wind up JVCo; • any alteration of the Articles of Association ("AoA"); • any alteration to the rights conferred by the shares in JVCo; • the sale of the whole or part of any material undertaking of JVCo including the sale of any assets with a value above a certain threshold; • alter its authorised or issued share capital in any way (including issuance of shares or any securities, purchase or redemption of its own shares, granting of options over any shares or other securities, provision of further capital or reduction of capital, consolidating, subdividing or converting any shares or other securities or varying any of the rights attaching to any such shares or other securities); • subscription for, or acquisition or sale of, any securities in any other company including, without limitation, the formation, sale or acquisition of any company as a subsidiary of JVCo; • execution of contracts between JVCo and any Shareholder or any related entities or individuals; or • commencement of any new business (other than the Business as determined in item 4), cease to conduct any part of the Business or materially alter the scale of operations of the Business; • the giving of any loan or facility to another party (whether a related party or not) or to obtain loan facility from any party;

			<ul style="list-style-type: none"> • appoint, dismiss or vary the terms of engagement, role or responsibilities of the President; • appoint, dismiss or vary the terms of employment, role or responsibilities of other members of the Executive Team; • list any of the securities/shares of JVCo on a stock exchange; • restructure the capital of JVCo; • give a loan or other financial assistance to: <ul style="list-style-type: none"> ○ any Director; ○ any Shareholder; ○ any person or entity that controls or is controlled by or relatives of a Director or Shareholder; • acquire or dispose of any interest in any real property (including any leasehold interest); • enter into any contract or arrangement outside the ordinary course of the Business; • [declare and distribute any dividend or other type of distribution;]
13.	Deadlock	Determine any suitable process to resolve deadlocks	Depending on the proposed governance of JVCo (including the effective shareholding and any related governance rights of the respective Shareholders – such a rights conferred by different classes of shares), the SOE should consider whether deadlocks may arise and the appropriate principles and process to resolve the same.
FUNDING AND FINANCIAL OBLIGATIONS			
14.	Business Plan and Budget	Adoption of a business plan and budget	<p>The SOE should consider whether the initial business plan and budget should form part of the bidding requirements of the asset recycling transaction and part of the evaluation of the same.</p> <p>The initial business and budget of JVCo could then consist of the proposed business plan and budget included in the bid of the winning bidder / appointed private investor if acceptable and suitable to the SOE.</p> <p>Subsequently, the Executive Team would typically put together a draft business/working plan and budget for each financial year for the BOD's approval which is expected to be consistent with the initial (long term) business plan and budget.</p>
15.	Initial Funding and Contributions	Requirements for initial contributions to the business	<p>The SOE to consider whether each shareholder (including itself or relevant affiliate) shall be required to contribute an initial amount of working capital or assets to JVCo.</p> <p>The respective shareholder capital contributions versus their shareholding as well as their relative ability to control the day-to-day and overall business of JVCo will be critical to the assessment of the asset recycling transaction made by private investors at bid stage and have a direct impact on valuation and the upfront fee they may be willing to pay.</p>

			<p>The SOE should also consider whether:</p> <ul style="list-style-type: none"> • Shareholders are to make contributions to JVCo in cash or in kind; • how are contributed assets to be valued? How will any adjustments be made for any shortfall or excess in relation to any parties' proportionate funding obligation resulting from the valuation of the assets contributed?
16.	Further Funding	Process and mechanisms where further funding is required	<p>The SOE should also determine the obligations of the respective Shareholders where further funding is required during the term of the asset recycling transaction and agreement, and whether and to what extent it (or its relevant affiliate) will contribute to such funding.</p> <p>As a general principle, Shareholders shall ensure that JVCo has sufficient working capital to conduct the Business either from:</p> <ul style="list-style-type: none"> • loans from the Shareholders to JVCo; or • borrowings by JVCo, which may be unsecured or secured by assets of the JVCo; supported by guarantees from the Shareholders. <p>If third party finance is being raised, who will be responsible for arranging this? Will this be guaranteed (jointly or severally) by the Shareholders (or any of them)? Should lenders have recourse beyond the assets of the JVCo?</p> <p>The SOE should also consider what arrangements should be made in the event that a Shareholder fails to provide further funding when due (e.g. default/dilution provisions).</p>
17.	Dividend Policy	How and when dividends are to be declared and allocated	<p>The SOE should also consider how and when dividends are to be declared and, more importantly, how dividends are to be shared amongst the Shareholders including itself (or its relevant affiliate).</p> <p>The private investor(s) will typically expect that there is some degree of balance and correlation between the obligations of the Shareholders to contribute to the funding of JVCo and their entitlement to dividends.</p>
OTHER KEY ISSUES			
18.	Reports	Determine what reports the Shareholders shall be entitled to receive from JVCo	<p>The SOE should consider what type of reporting and information it wishes to receive on a continuous basis from JVCo. Typically, the Executive Team will prepare and provide the BOD and the Shareholders with monthly/quarterly management reports.</p>
19.	Conflicts of interest and non-compete	Determine whether there are risks of conflict of interest or competing assets/activities	<p>The SOE should determine whether there may be existing or potential risks of conflict of interest between any Shareholder of JVCo (including itself or related entities) and JVCo and the Business.</p> <p>Related to this is the risk of any assets/activities which are or may compete with the Business of JVCo and which are controlled by any of the Shareholders (including the SOE) or</p>

			<p>any related entities. The SOE should consider whether and to what extent the Shareholders will be prohibited from competing with the JVCo, and if so, what territorial or other limitations should apply, and for what period?</p> <p>The risk of conflicts of interest and/or competing assets/activities may have a material impact on valuation and the attractiveness of the asset recycling transaction for private investor(s) as these could potentially (depending on the nature of such conflicts of interest and/or competing assets/activities) affect the revenue generation of the Asset and required return on investment of the private investor(s).</p>
20.	Restrictions on transfer of shares in JVCo	What restrictions apply to the transfer of shares in JVCo	<p>The SOE should determine whether and to what extent the Shareholders (including itself and/or the private investor(s)) will have the right to deal, transfer or otherwise dispose of any interest in their shares to a third party. This may involve a certain lock-in period during which the Shareholders (or just the private partner) may not transfer their shares/divest their interest in the JVCo to ensure that the partner which will have been selected pursuant to the asset recycling partner procurement process, does not exit the Asset and JVCo at an early stage. In any event, any material transfer of shares by a Shareholder should (typically) only be allowed to a qualified third party which fulfils certain agreed requirements (for example, financial capability or experience) or subject to prior approval of the other Shareholder(s).</p> <p>Certain other typical rights of Shareholders in the event of a transfer of shares/sell down to be considered by the SOE include providing for:</p> <ul style="list-style-type: none"> • A first right of refusal; and/or • drag along or tag along rights;
21.	Shareholder loans	Mechanism for dealing with shareholder loans to JVCo	<p>Shareholder loans to JVCo should be on arm's length terms. The SOE should also consider whether such loans should be convertible into shares or not (for outstanding amounts which have not been repaid by JVCo within a certain timeframe).</p>
22.	Restriction on encumbrance over shares and JVCo's assets	Whether there will be specific restrictions on encumbering shares or assets of JVCo	<p>The SOE may want to consider including provisions in the SHA related to restrictions on the encumbrance of shares held by any Shareholder and JVCo's assets, as well as on JVCo providing any guarantees over any third party's financial liability.</p>
23.	Events of default	Events of default and consequences of breach	<p>The SOE should consider the types of Shareholder default which should be reflected in the future SHA (and AoA of JVCo). These may include the following:</p> <ul style="list-style-type: none"> • a Shareholder being insolvent; • breaching a material term of the SHA; • purporting to dispose of or encumber shares in JVCo other than as permitted under the SHA;

			<ul style="list-style-type: none"> a Shareholder undergoing a change of control without the approval of the other Shareholders. <p>The detailed process for dealing with events of default, including appropriate checks and balances, will be covered in the SHA.</p>
24.	Governing law and Dispute Resolution	Governing law of SHA and dispute resolution to be determined	<p>The SOE to consider the governing law of the future SHA.</p> <p>In terms of the dispute resolution mechanism applicable to any disputes amongst Shareholders and the ultimate dispute resolution forum (jurisdiction), private investor(s) will have a strong preference (if not requirement) for any disputes to be finally settled in international arbitration (as opposed to the courts). The contrary might constitute a deal breaker for most international investors.</p>

