GRID ENGINEERS

Climate Toolkits

for Infrastructure PPPs

PPIAF Enabling Infrastructure Investment

Global Infrastructure Facility A G20 INITIATIVE

IFC International Finance Corporation WORLD BANK GROUP

Creating Markets, Creating Opportunities

SCENE SETTER

The global impact of climate change is more obvious than ever

- Climate impacts from melting polar ice to fires, floods, droughts and hurricanes
- **Loss of life and destruction** affecting all parts of the developed and developing world and
- **Cascading impacts** on the global economy, affecting business productivity, development, and employment

Global pressure for climate action is growing

- The **Paris Agreement** and the COP27 in Egypt confirmed the global commitment to accelerate action particularly on adaptation
- **WB's new climate action plan** & other global initiatives are ramping climate actions in infrastructure
- **The private sector**, driven by its shareholders and new regulatory pressures, is making bold commitments to achieve net-zero emissions and invest in climate resilience by 2030 and 2050

THE TOOLKIT

OBJECTIVE

To Describe a holistic, systematic, and integrated approach to support the development, selection, design, structuring, preparation, and tendering of climate-smart PPPs.

CONTENTS

The toolkit discusses interactions and trade-offs among technical, economic, financial, and contractual decisions of a PPP project, and provides guidance on pressing questions.

INTENDED AUDIENCE

Primary audience: Client EMDE governments
Secondary audience: WBG, other MDBs, DFIs, other development partners and stakeholders working in advisory services

THE TOOLKIT ARCHITECTURE

A MULTI-PHASE MODULAR APPROACH

INTRODUCTORY PHASE

Review enabling environment and policy frameworks for green/sustainable investments

Traditional PPP phases and tasks

PHASE 1 – PROJECT SELECTION

Project scope ◆ Identify project alternatives ◆
Select project ◆ Assess economically the project
VfM as PPP; analyze the NDC – mitigation and adaption pathways to net zero

PHASE 2 – PROJECT APPRAISAL

Preliminary design ◆ Test technical feasibility ◆
Socio-economic feasibility (or CBA) ◆
Assess bankability and affordability

PHASE 3 – STRUCTURING

Define the contract structure ◆ Risk allocation ◆
Finalize design, tech. requirements and output specs.;
include KPIs and/or climate certification

PHASE 4 – TENDER

Prepare RFQ/RPF ◆ Launch the tender ◆ Qualify bidders

PHASE 1: PROJECT SELECTION AREAS OF GUIDANCE

- Translating Paris Agreement NDC commitments into pipelines of investments
- Understanding the impacts of climate on the project

Climate Models
Global; Regional models; downscaling methods to obtain local climate information

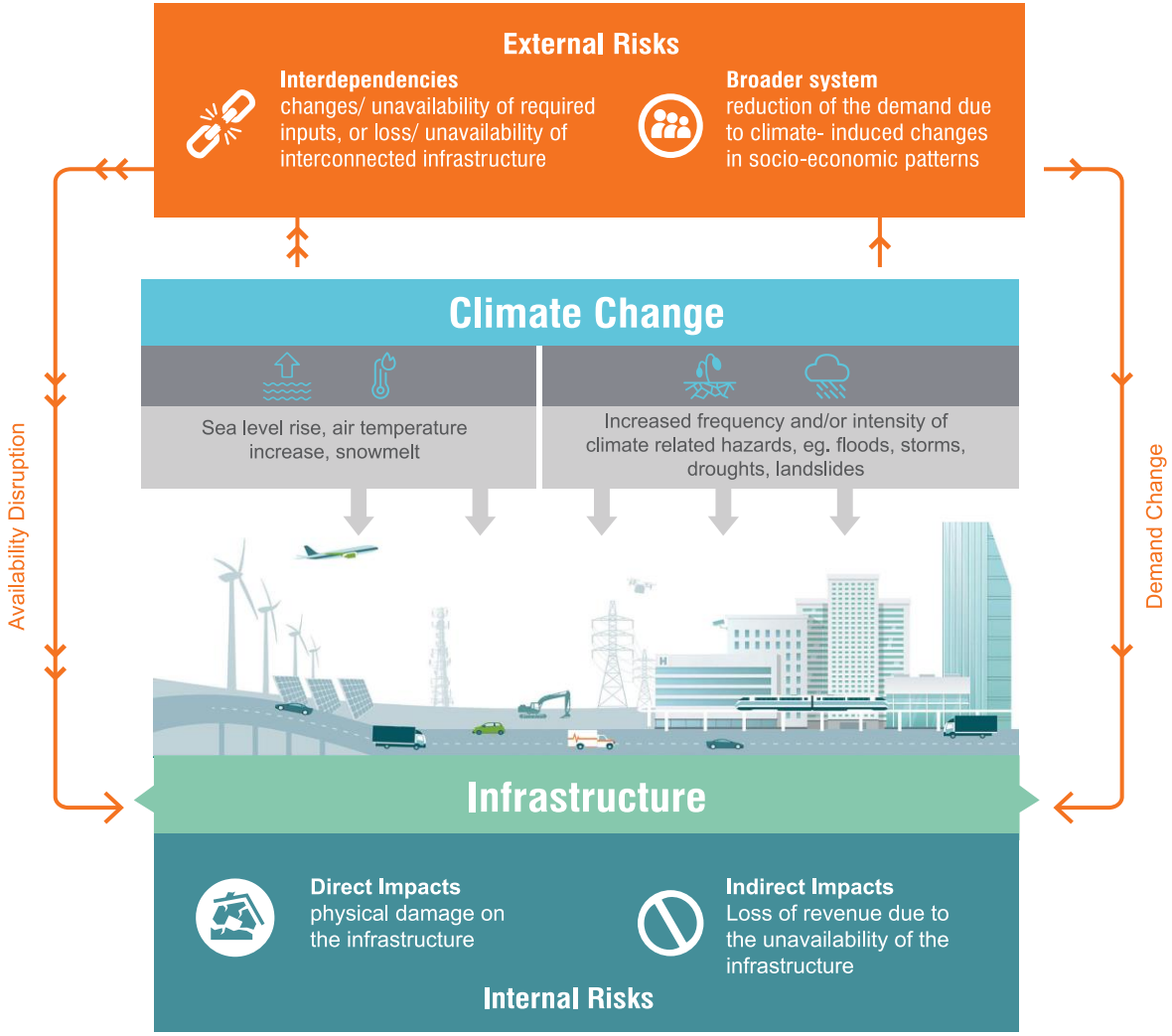
Economic Models
to understand the economic implications of climate change on the project & the broader environment

Hazard & Impact Models
to account for exposure and vulnerability

Climate Risks: Internal + External

Direct
Indirect

Interdependencies
Broader system

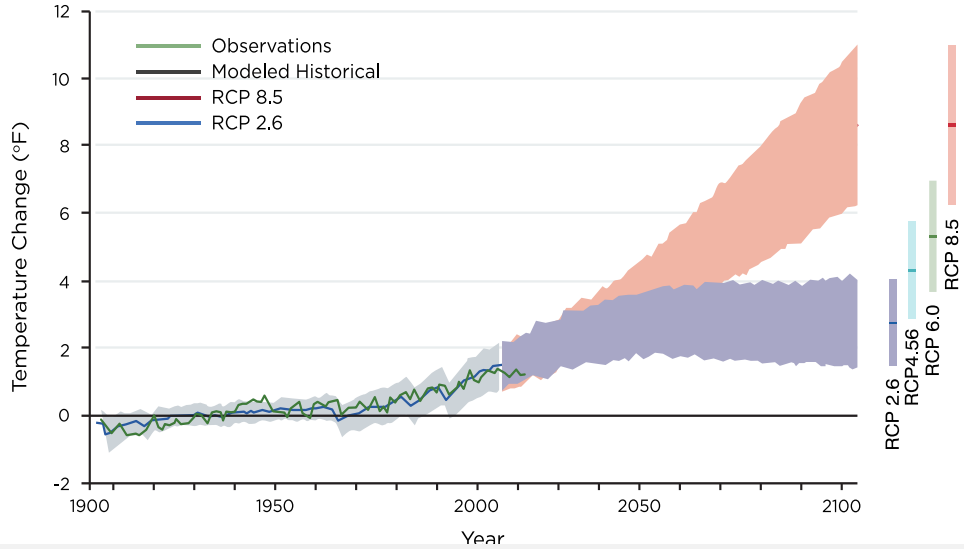


PHASE 2: PROJECT APPRAISAL AREAS OF GUIDANCE

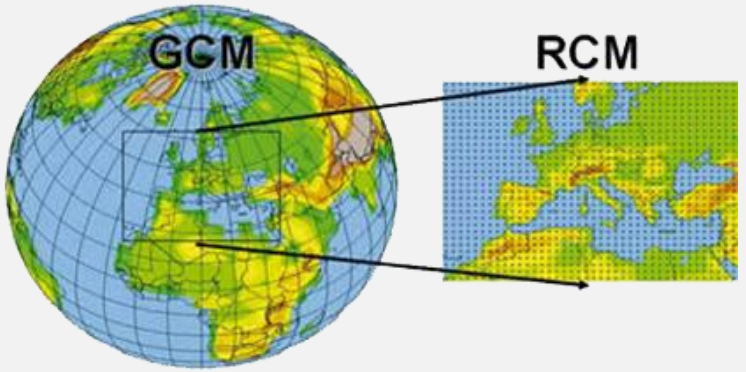
- Understanding climate hazard projections, uncertainties, climate externalities and designing measures
- Assess **future climate hazards** using global and regional climate models
- Designing climate (adaptation + resilience+ mitigation) measures to account for climate variability
- **Technical Performance** is assessed over a range of plausible scenarios
- The selection of the **preferred adaptation strategy** is both a technical and a financial decision

Climate Scenarios

Global projections – RCP scenarios



Regional/Local projections



Hazard metrics

related to the project for each climate scenario

PHASE 3

Structuring Considerations

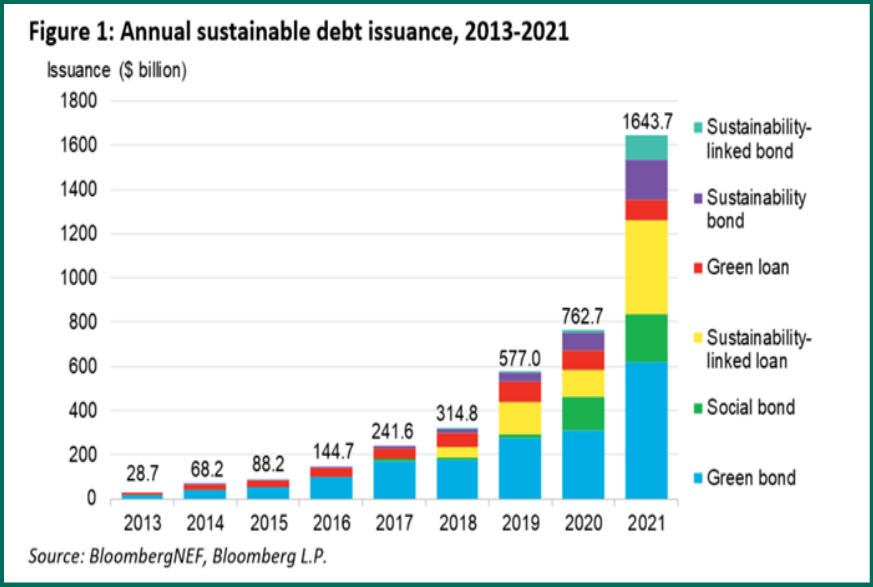
KEY QUESTIONS

- What are the nuances of climate risks from a contractual viewpoint?
- How does climate change affect traditional risk-sharing approaches and FM provisions?
- Are there financial instruments , structures or amendments to the payment mechanism of PPPs to support financing of climate mitigation /adaptation works?
- What technical design, KPIs and/or certifications should be included in the contract and tender documents to enable a PPP to tap into climate and sustainable finance?

AREAS OF GUIDANCE

- Including climate KPIs, Targets in project documentation and tapping into climate/sustainable finance

- Introducing climate-smart output indicators (KPIs) to be included in reporting and enhance the ability to tap into climate and sustainable finance a rapidly growing market



Introducing Standards & Taxonomies

Design standards for increased climate resilience (including environmental and social safeguards)

- Each country will have **specific engineering, construction and built environment standards**, codes or rating systems focused on climate and disaster risk mitigation.
- Standards may vary regionally within countries.
- Many of these standards are often based on historical trends rather than future scenarios

Task Force on Climate Related Disclosures (TCFD) – Framework

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS & TARGETS
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

Climate taxonomies & Rating Systems

EDGE developed by IFC: evaluates location-specific, climate-related risks for a real estate project or portfolio

SuRE developed by GIB Natixis and Iseal Alliance: integrates climate/environmental requirements for infrastructure projects

Envision/FAST label: Third-party rating system; identifies requirements of sustainable infrastructure; incentivizes higher performance beyond minimum requirements.

PHASE 4
Tender Process

KEY QUESTIONS

- How can the qualification/evaluation criteria incentivize the integration of innovation and green/sustainable practices during the project development?
- What is to be included in an RFP package to properly cover the climate aspects of the project?
- What are the alternatives to the least cost approach? Are there ways to promote resilient infrastructure providers?

HIGH-LEVEL VS. SECTOR-SPECIFIC TOOLKITS

HL *What and why?*

- All Sectors
- Phase 1-4
- Reference document
- Resources library

SS *What and why?*

- 5 Sectors
- Phase 1
  ToRs for Phases 2-4
- Cook-book with simple solutions
- Tools

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