

Regional Workshop on Measuring Disaster Risks and Impacts



STATISTICS

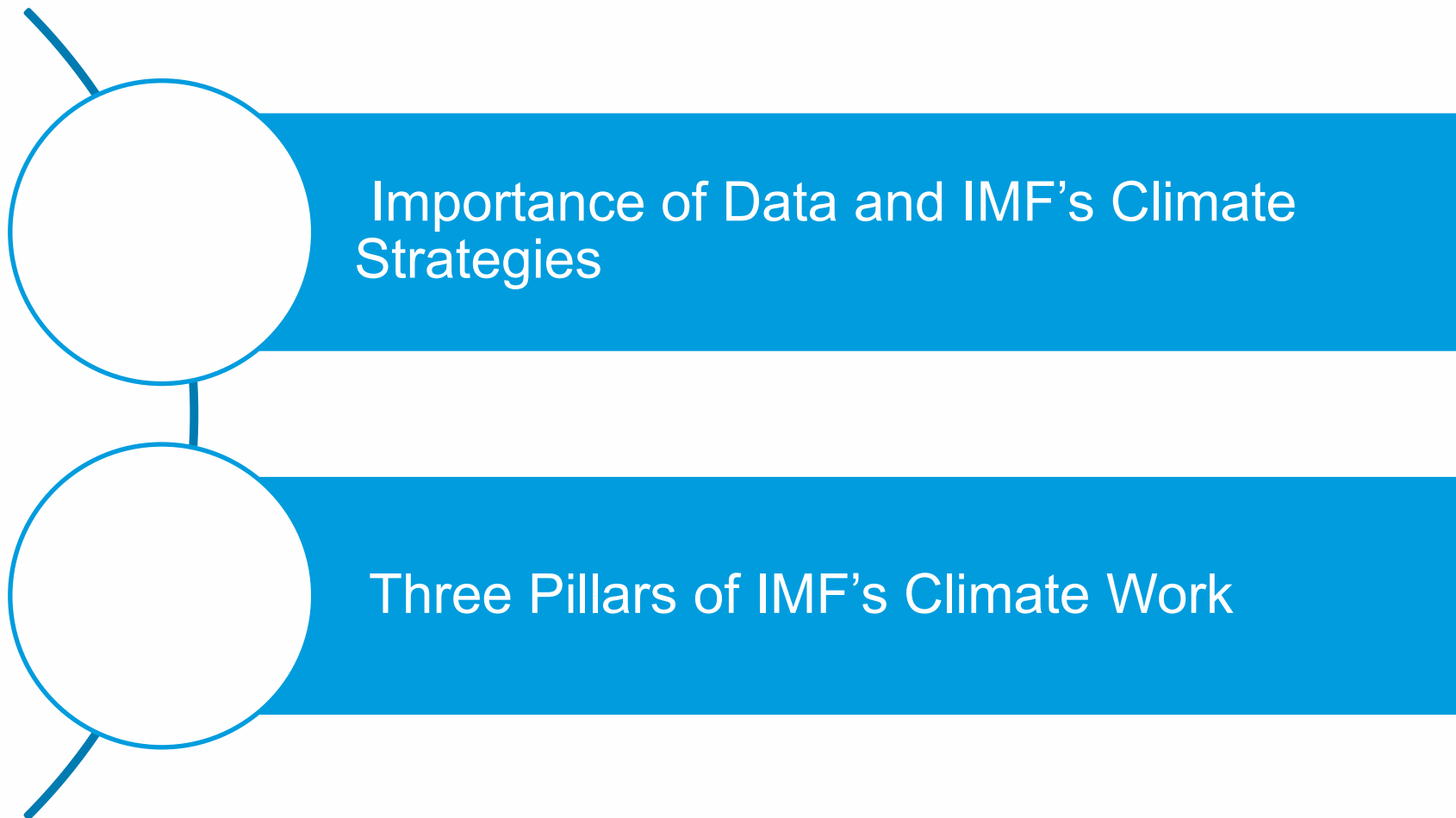
Integration of Climate Change in Macroeconomic Statistics and IMF's Ongoing Data Initiatives

OCTOBER 29, 2025

*Mahmut Kutlukaya
Senior Economist
Statistics Department*

The views expressed in this presentation are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF Management.

Outline



Climate Data: Importance and Challenges

Importance



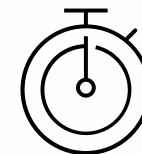
**Risk
Assessment**



**Informed
Policies**



**Access to
Finance**



**Monitoring and
Accountability**

Challenges



**Data Availability,
Coverage, and
Access**



Data Quality



**Integration,
Linkages, and
Coordination**



**Capacity
Constraints**

IMF and Climate Change

Climate change is a transformative force, along with digitalization, artificial intelligence (AI), and demographic shifts.

- reshaping the economic landscape
- creating opportunities and challenges.



Over the past decade, the recognition of climate change as a factor in economic and financial stability has significantly deepened.

IMF's Climate Strategy

- Climate Strategy (2021) goal: *“provide high quality, granular, and tailored advice to the membership on macroeconomic and financial policy challenges related to climate change”*
- Systematic and strategic integration of climate change into the IMF's activities when it is macro-critical.



Surveillance &
Analytical Work



Capacity
Development &
Data



Lending
NEW



Cooperation &
Coordination

IMF's Resilience and Sustainability Facility (RSF)



Importance of climate change data for the Fund

Understanding macro- economic and financial impacts of climate change is a data-hungry business!

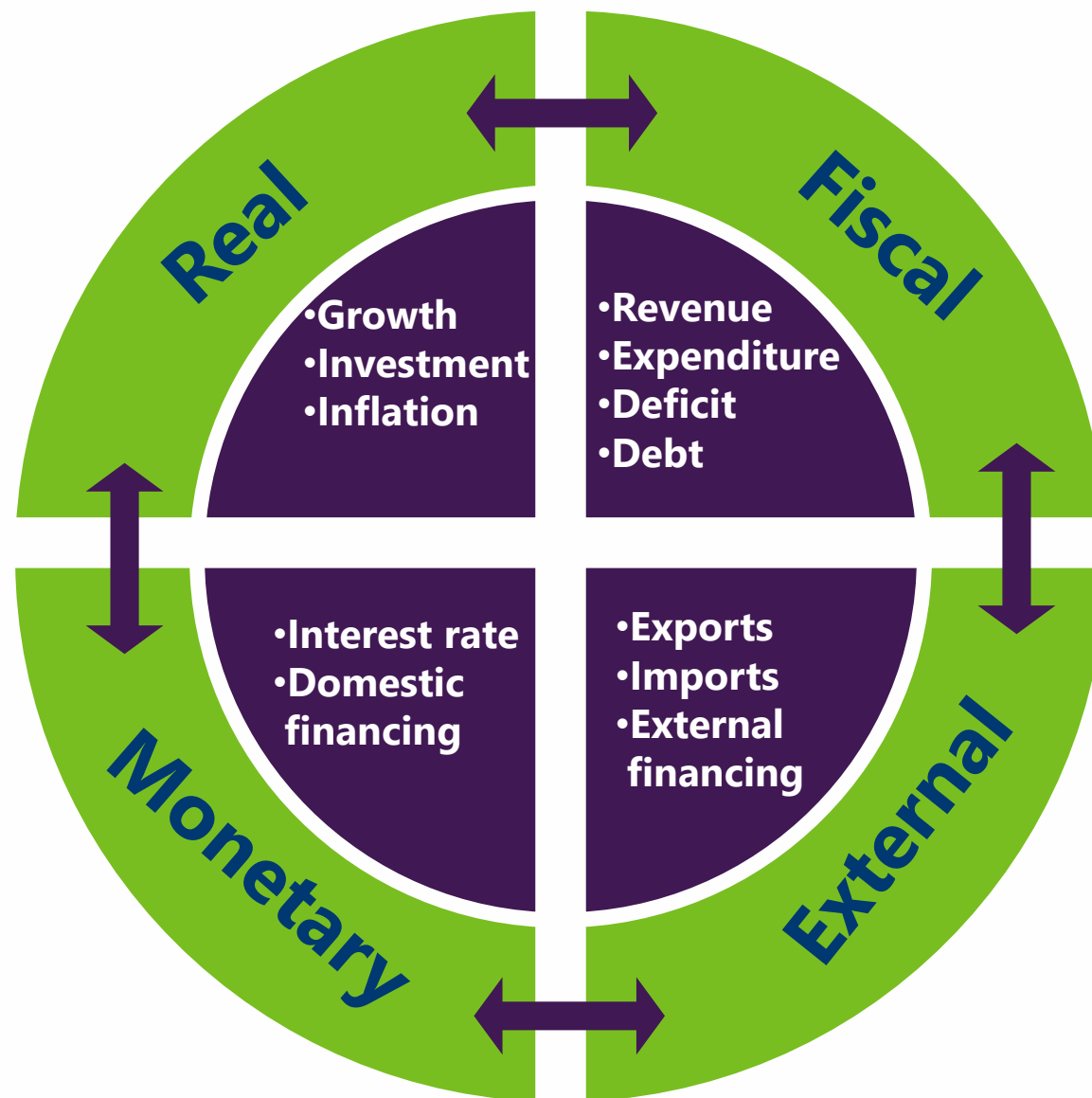
- **Macrocriticality of climate change**
 - Assess physical risks and adapting
 - Understand the gap between climate goals and current actions
 - Assess transition risks

- **Importance of timely and “fit-for-use” information for climate relevant discussions and policy decisions**
 - Understand and identify key implementation challenges
 - The progress/starting point
 - Evidence-based economic decision making!

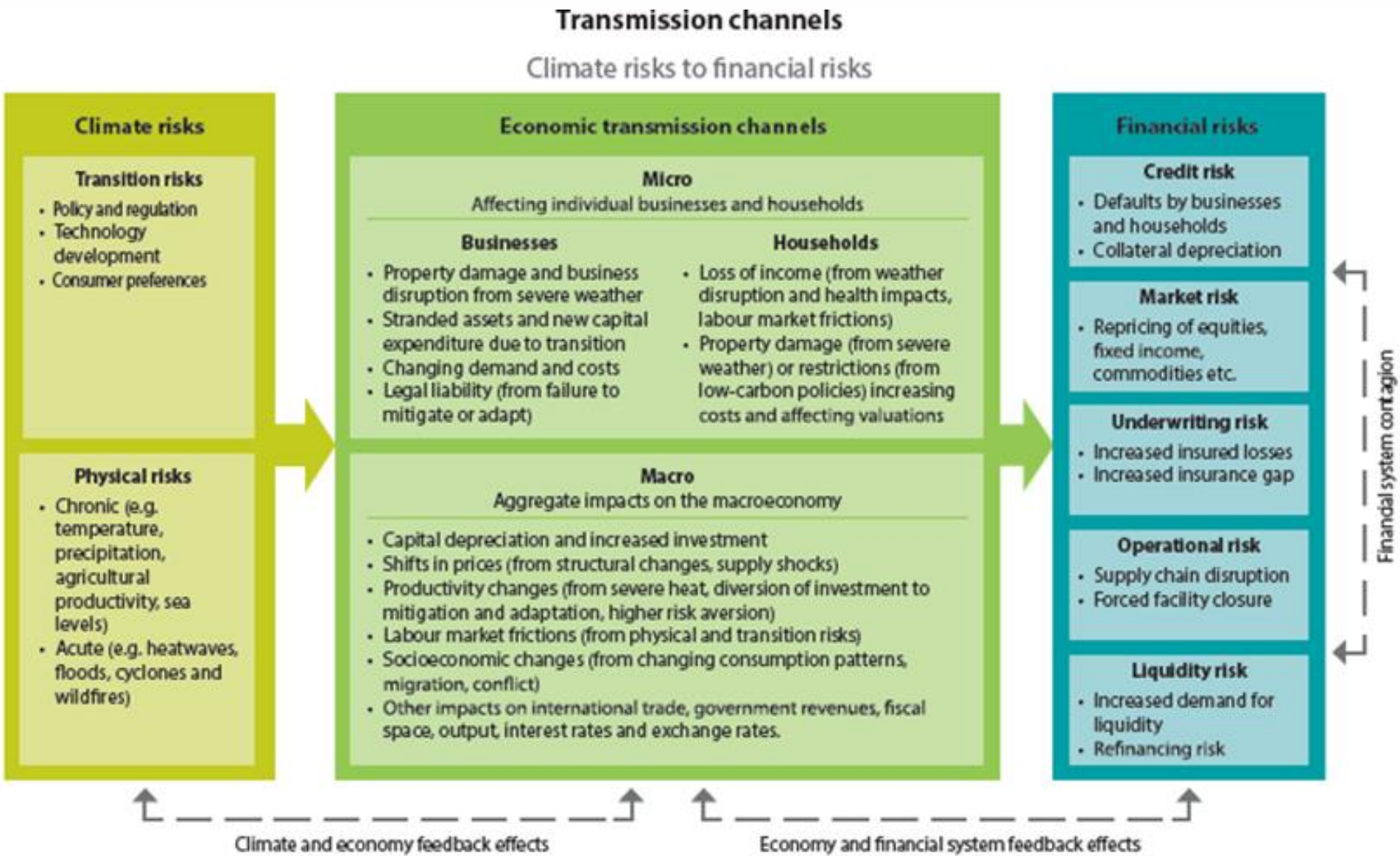
Importance of climate change data for the Fund-II

- **Support Fund Surveillance through quality and relevant data**
 - Shape dialogue on climate surveillance
 - Importance of comparability across countries, time frames and climate scenarios
- **Address CD Needs**
 - Climate-module of Public Investment Management Assessments ([C-PIMA](#))
 - Climate Policy Assessment Tool ([CPAT](#)) to analyze impact of policies for Paris pledges
 - Climate Policy Diagnostics ([CPD](#)).
 - Transition risks and alignment approaches
- **Resilience and Sustainability Trust ([RST](#))**
 - Guidance Note and Interim Review: Importance of high-quality data and diagnostics

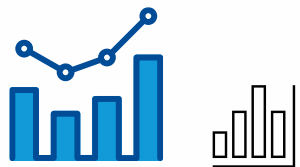
Climate Change: Macro linkages



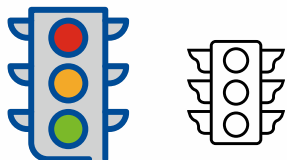
Transmis



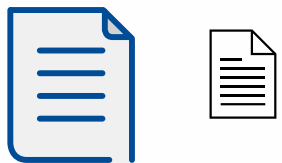
Bridging climate related data gaps



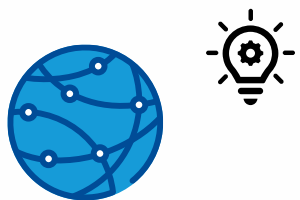
High quality, consistent and comparable macro-relevant climate change data



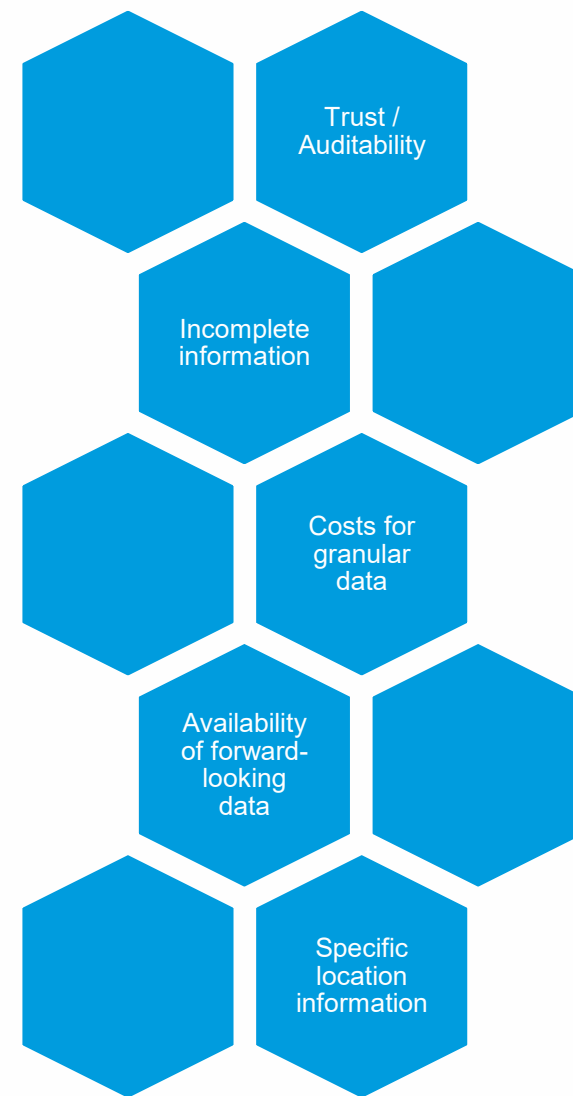
Well-defined indicators and methodological standards



Mutually shared and operationalized principles for taxonomies and sustainable finance classifications



Common and consistent set of global disclosure standards



Source: NGFS – Bridging Data Gaps – *Final Report* – June 2022.

Building a Climate Data Ecosystem

Strategic Planning

- Establish a 'core national stakeholder group' for climate data
- Conducting an assessment of the institutional and data environment

Establishing mechanisms for implementation

- Set up of a steering committee
- Implementation of the teams/technical groups tasked with the compilation of priority indicators.

Compiling the accounts/indicators

- Advance through "learning by doing" (i.e., start with experimental indicators)
- Collaborate with line ministries, including timelines and data collection processes.

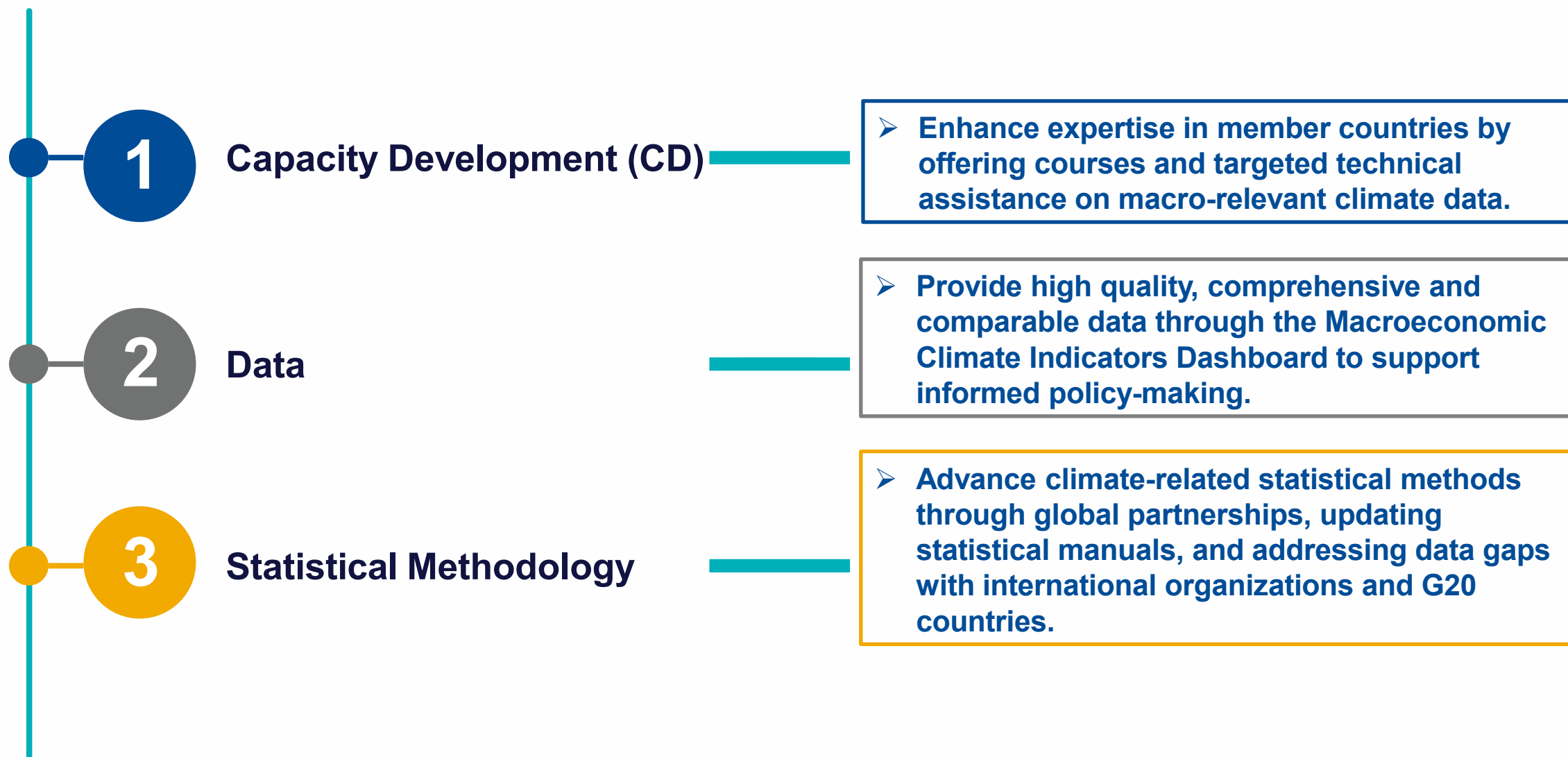
Disseminating the accounts/indicators

- Produce outputs that can be easily used by the various user groups.
- Develop a user engagement.

Regular production

- Leverage continuously on other initiatives – SDG, UNFCCC, UNCCD, national initiatives.
- Formalize relationships between institutions.

Three Main Pillars of IMF's Climate Work



STA Climate CD Program

SECO program

Bangladesh

Ghana

Indonesia

Peru

South Africa

Colombia

Mozambique

Egypt

Vietnam

Non-SECO Projects and ad-hoc TA

- Jamaica, Azerbaijan, Tanzania, Seychelles, Morocco, Barbados, Iraq, the Gambia, Philippines.



STA Climate CD Program - II

The Data for Decisions (D4D) Fund is the IMF's multi-partner financing vehicle for delivering capacity development (CD) in statistics to strengthen evidence-based macroeconomic policymaking.

Environmental and Climate Change Statistics Module aims to strengthen the ability of select countries (macro-criticality) to compile and disseminate policy-relevant environmental and climate change statistics.

- Strengthening the statistical systems to compile macro-relevant environmental and climate statistics consistent with international statistical standards, such as the recently released SNA2025 and the BPM7, and the upcoming Government Finance Statistics Manual as well as the Monetary and Financial Statistics Manual and the System of Environmental Economic Accounting.
- Facilitating the development of an institutional mechanism to support the establishment of an environment and climate change statistics program.
- Addressing data gaps in compiling macro-relevant environmental and climate change statistics and indicators, including climate risks to the economy, the financial systems and biodiversity, and climate finance;
- Leveraging big data to assist countries in utilizing geospatial global datasets and climate models to fill the data gaps; and
- Supporting countries in integrating macro-relevant environment and climate-related statistics in their regular statistical production processes.

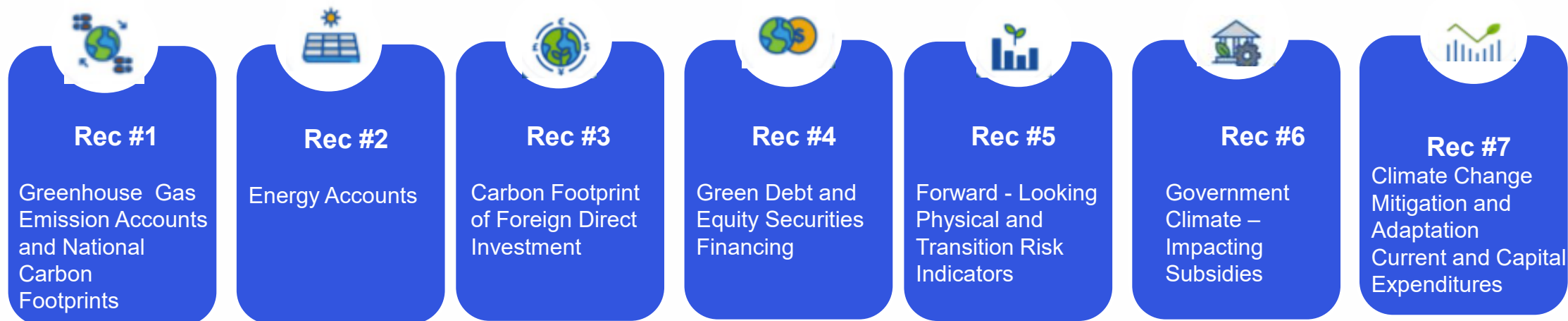
Multi-country
workshops

Single-country
technical
assistance

- Diagnostic missions
- Work program to close the data gaps

G20 Data Gaps Initiative (DGI-3) Climate-Related Recommendations

G20 DATA GAPS INITIATIVE 3



DELIVERING INSIGHTS FOR ACTION

The Macroeconomic Climate Indicators Dashboard

IMF

CLIMATE CHANGE
DASHBOARD

INDICATORS

COUNTRIES

ACCESS DATA

TOOLS

LEARN MORE



Macroeconomic Climate Indicators Dashboard

Data-Driven Insights at the Intersection of Climate and the Economy



Resilience & Risks

Climate-related
Disasters Frequency
IMF-Adapted ND-GAIN
Index
Climate-driven
INFORM Risk
Change in Mean Sea

Levels



Fiscal & Trade-related Indicators

Environmental Taxes
Environmental
Protection Expenditures
Fossil Fuel Subsidies
Trade in Low Carbon
Technology



Financial Indicators

Sustainable Debt
◦ Green Bonds
◦ Social Bonds
◦ Sustainability Bonds
◦ Sustainability-linked
Bonds
Carbon Footprint of
Bank Loans



Energy Transition

Renewable Energy
Trade in Low Carbon
Technology
Forest and Carbon



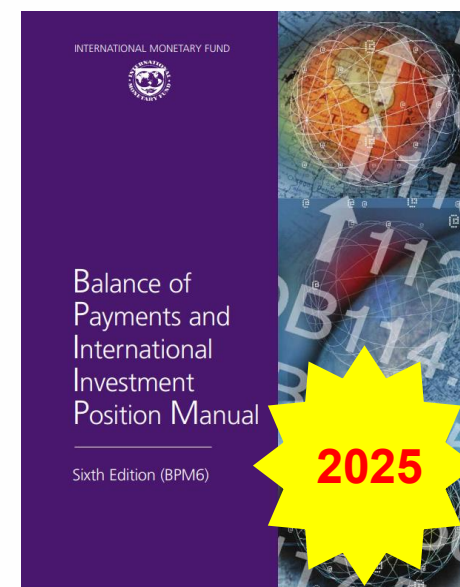
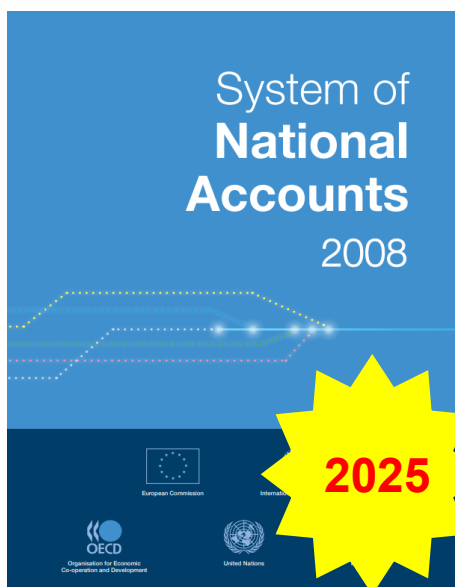
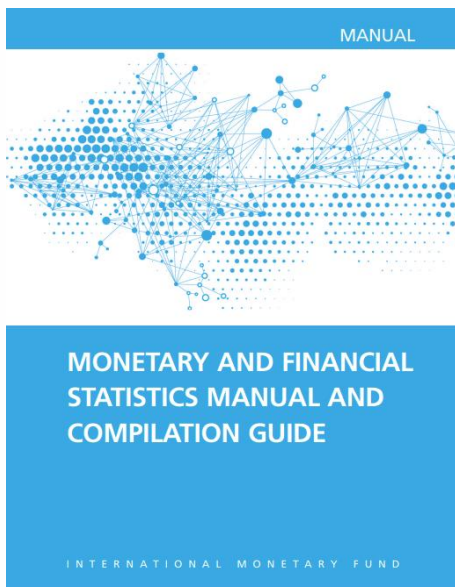
Economic Activity Indicators

Carbon Footprints from
Economic Activity
GHG Emissions
Accounts
CO₂ Emissions
Intensities and

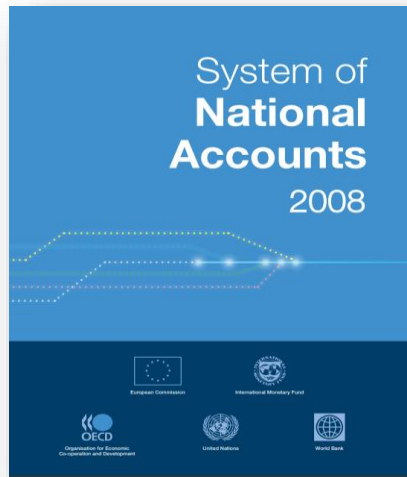
Multipliers

Bridging Data Gaps – STA Initiatives

International statistical standards updates

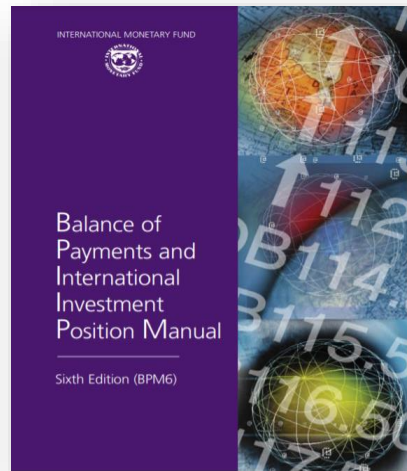


Statistical Standards - National Accounts and BOP



2025 System of National Accounts: New chapters on sustainability

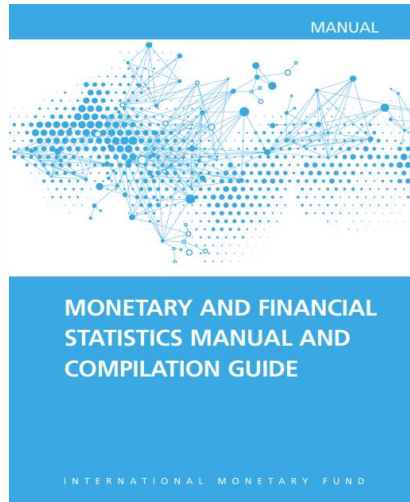
- Chapter 2: National accounts and measures of well-being and (environmental) sustainability
- Chapter 34: Measuring well-being
- Chapter 35: Measuring sustainability of well-being



Balance of Payments and International Investment Position Manual, BPM7: Annex (updatable) on Sustainable Finance

- A supplementary table for the ESG and green financial instruments breakdowns of IIP/BOP.
- Direct investment in specific sectors; Direct Investment by counterparty country.
- Climate-related international cooperation grants to low-income countries.

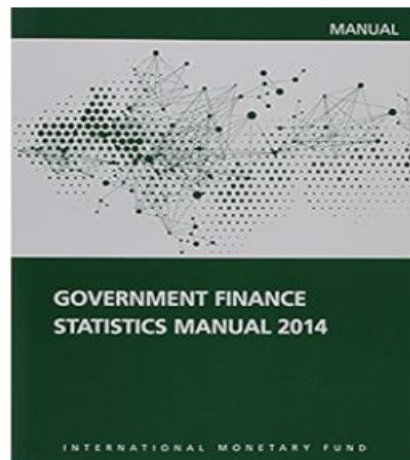
Statistical Standards - Monetary and Government Finance



Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG) Update

Additional breakdowns

- To better measure climate finance
- To support assessing climate change impact on the financial sector

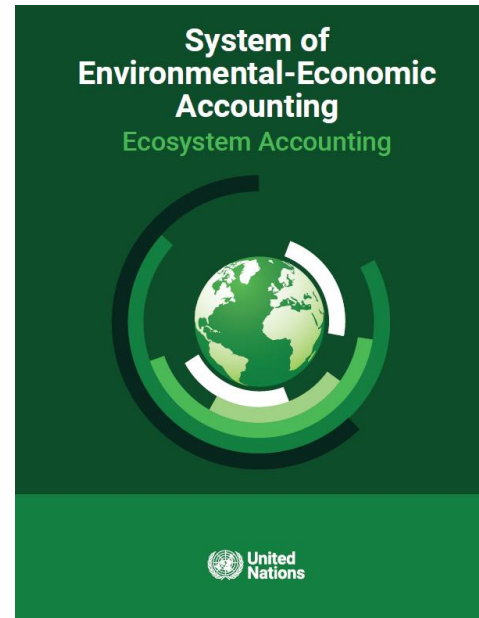
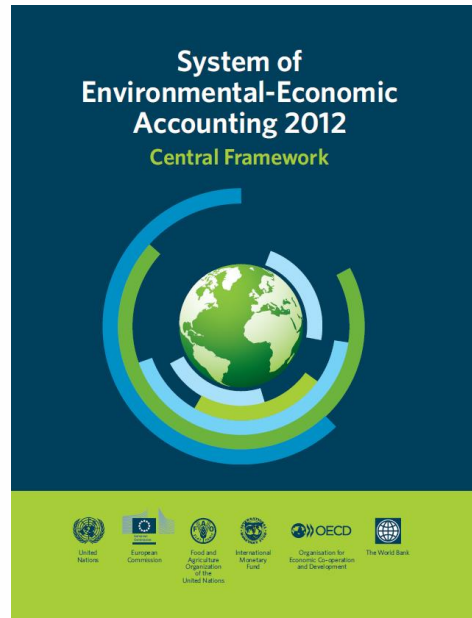


Government Finance Statistics Manual (GFSM) Update

The update will be closely coordinated with

- The review of the Classification of the Functions of Government (COFOG)
- The update to the System of Environment Economic Accounting Central Framework (SEEA-CF).

Statistical Standards - Environmental-Economic Accounting



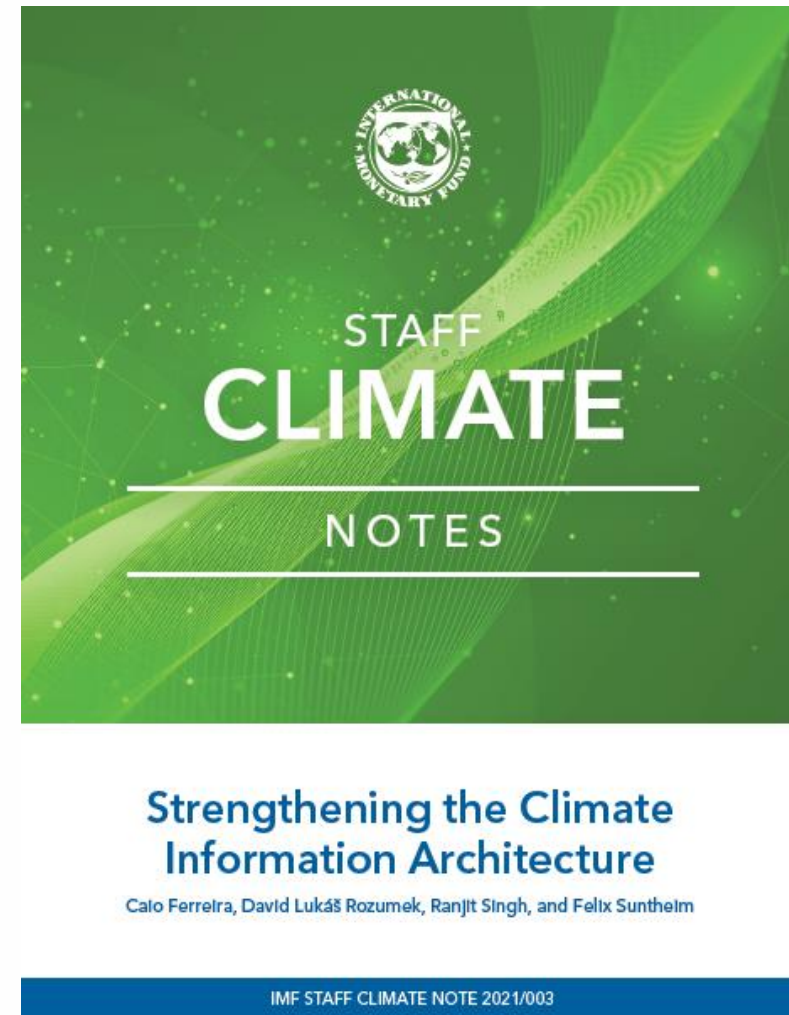
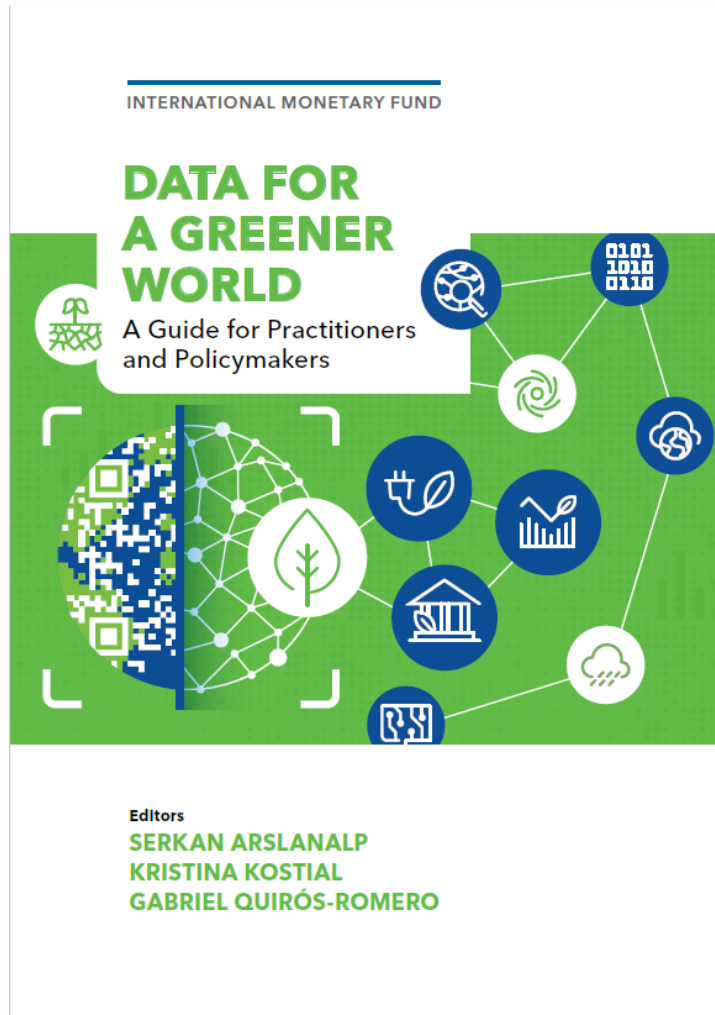
Brings together environmental and economic data



Credibility, reliability, replicability of data



Common language between different communities



Key messages

- **Macro-criticality of climate change: Adaptation, mitigation and transition!**
 - IMF focuses on macro-policies and balance of payments risks.
- **Importance of timely and “fit-for-use” information for climate relevant discussions and policy decisions.**
- **IMF’s Statistics Department supports countries with tailored training, providing technical assistance and making policy relevant readily available.**

Thank you!