



Natural Capital Accounting for Embedding Nature into Policies: Experiences from WAVES/GPS

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Do Market Prices and Policies Reflect the Values of Nature?

- **Economies and societies are embedded in nature.**
 - More than half of global GDP is moderately or highly dependent on nature
- **Nature is our precious asset for development and for fighting climate change.**
 - Development cannot be decoupled from it (Dasgupta Review 2021)
 - Threats to biodiversity/ecosystem services are threats to development
 - Impacts of nature loss are more immediate, more severe and more local
 - Loss of nature and climate change reinforce each other
- **And yet nature has been a ‘blind spot’ in economic policy and decision making** - costs of loss of Natural Capital and Ecosystem Services (NCES) are not fully priced!
- **Current measures of economic progress (e.g. GDP) do not fully account for the impacts on the environment** and role of the environment in economic production
- **Market (and policy) failures impede proper pricing of NCES and accelerate nature loss and climate change**

How can we address these challenges?

Power of data, tools and knowledge for remedying market failures and mainstreaming nature into decision-making

WAVES/GPS

Global technical assistance facility focusing on economic and policy analysis of natural capital and ecosystem services to support more inclusive, resilient and sustainable development.

- **Produce data, metrics, tools and analytical evidence** to remedy market, regulatory and governance challenges that drive resource degradation and biodiversity loss, increase nature investments, and improve outcomes for people and planet.
- **Improve capacity** for mainstreaming nature into economic decision-making in developing countries

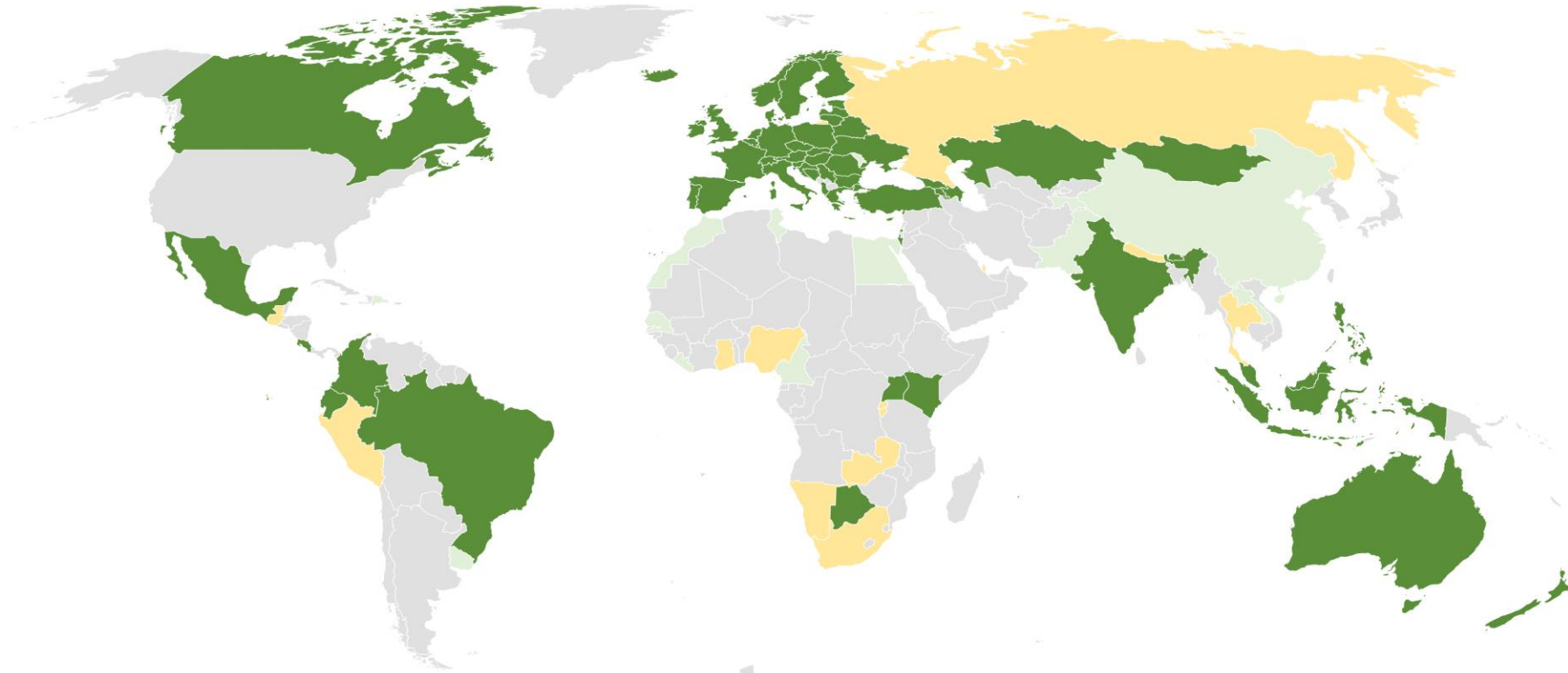


**GLOBAL PROGRAM
ON SUSTAINABILITY**

Making Nature Count for People & Planet

Many countries lack capacity to measure and value natural capital...

Implementation of the System of Environmental Economic Accounts (UN-SEEA)



- Stage I: compilation only

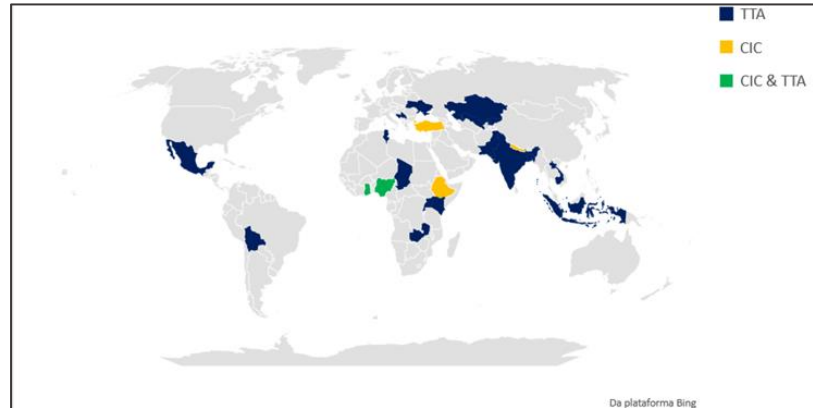
- Stage II: compilation and dissemination

- Stage III: regular compilation and dissemination

Source: United Nations, [Report on the 2021 Global Assessment of Environmental-Economic Accounting](#)

Global Program on Sustainability (GPS)

Objective: Strengthen the production and use of analytical evidence (economic and financial) on natural capital and ecosystem services to inform government and financial market decisions



Pillar I. Global Information

Increased coverage and use of global data, knowledge and tools on sustainability, natural capital and ecosystem services

Pillar II. Country Implementation

Increased country capacity to produce and use natural capital data and analysis for policy and investment decisions

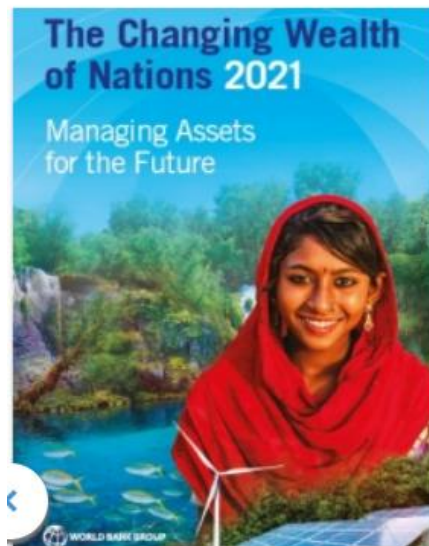
Pillar III. Sustainable Finance

Increased access to and use of data and analysis on nature by financial markets to align financial flows with env sustainability

Crosscutting: PEIA, Communication, Program Management and Quality Assurance

Pillar I: Producing global data and knowledge

Publications & Knowledge



OCT 21, 2021

The Changing Wealth of Nations 2021

Managing assets for the future



AUG 24, 2021

Unlocking Nature-Smart Development

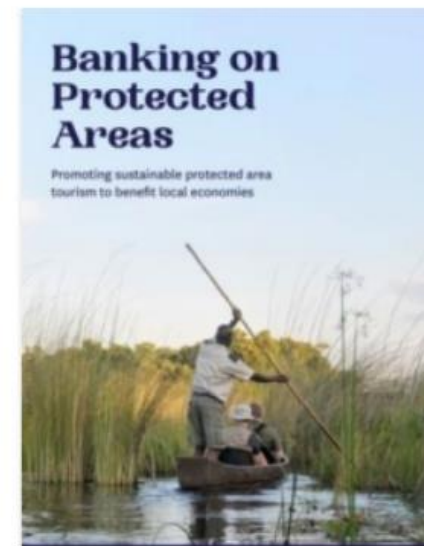
Biodiversity and ecosystem services



JUL 14, 2021

The Economic Case for Nature

A new global Earth-economy model



JUN 09, 2021

Banking on Protected Areas

Promoting sustainable protected area tourism to benefit local communities

Number of downloads of GPS supported analytics published on the World Bank Open Knowledge Repository (OKR) reached **120,000 (FY23)**

Example: Integrated Global Earth-Economy Model

(37 Country units x 18 agro-ecological zones)

Ecosystem Services included

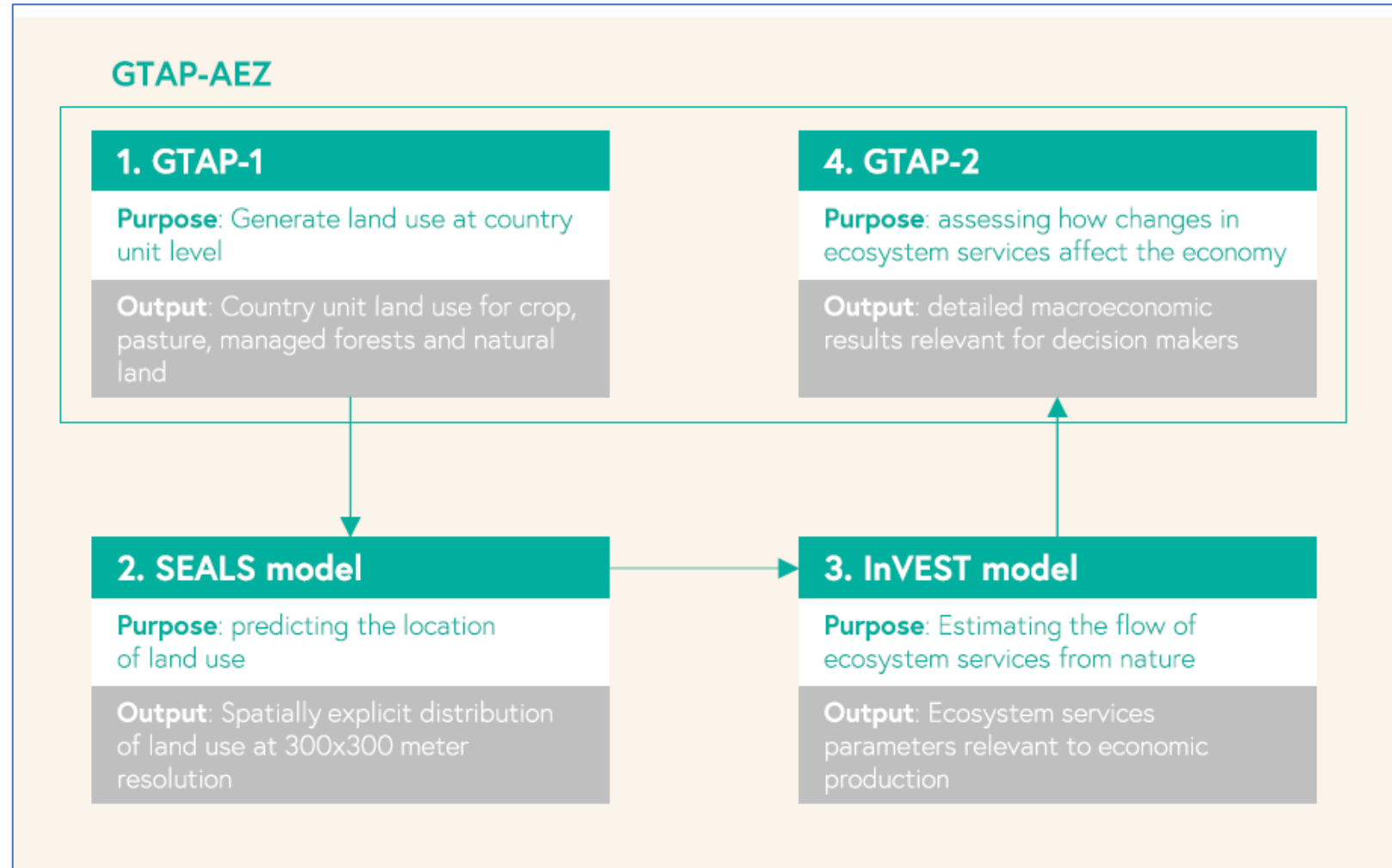
1. Pollination
2. Timber
3. Fisheries
4. Carbon

Impact of partial loss of ES

- 90 percent reduction in wild pollination
- Severe disruptions of fish migration
- Reduced provision of timber from native forests

Economic outcomes modeled

1. GDP
2. Welfare
3. Factor use



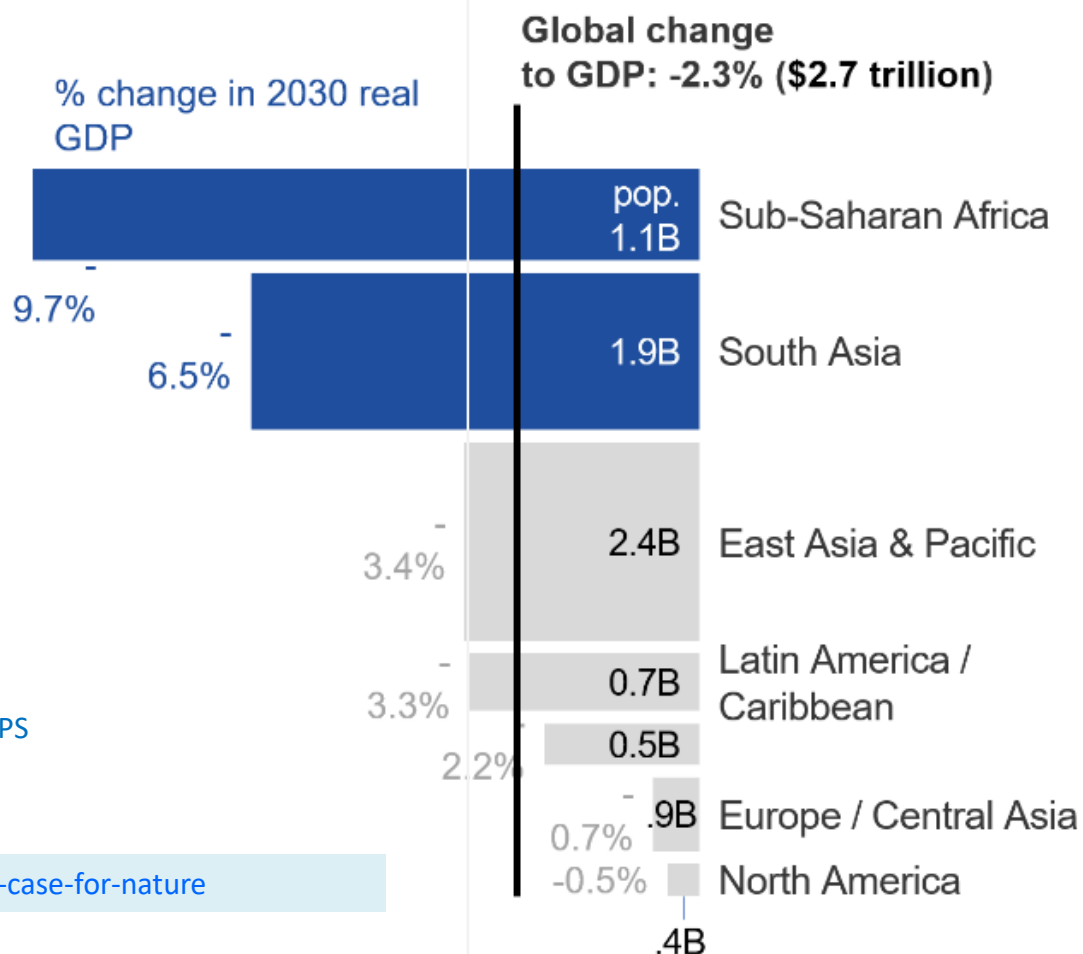
Nature Loss Leads to Material Economic Loss

Percent Loss of 2030 GDP under a scenario of partial ecosystem collapse, compared to business as usual

Results show that Sub-Saharan Africa and South Asia could lose up to 10% of GDP annually by 2030 if select ecosystem services collapse, compared with the no-tipping-point scenario

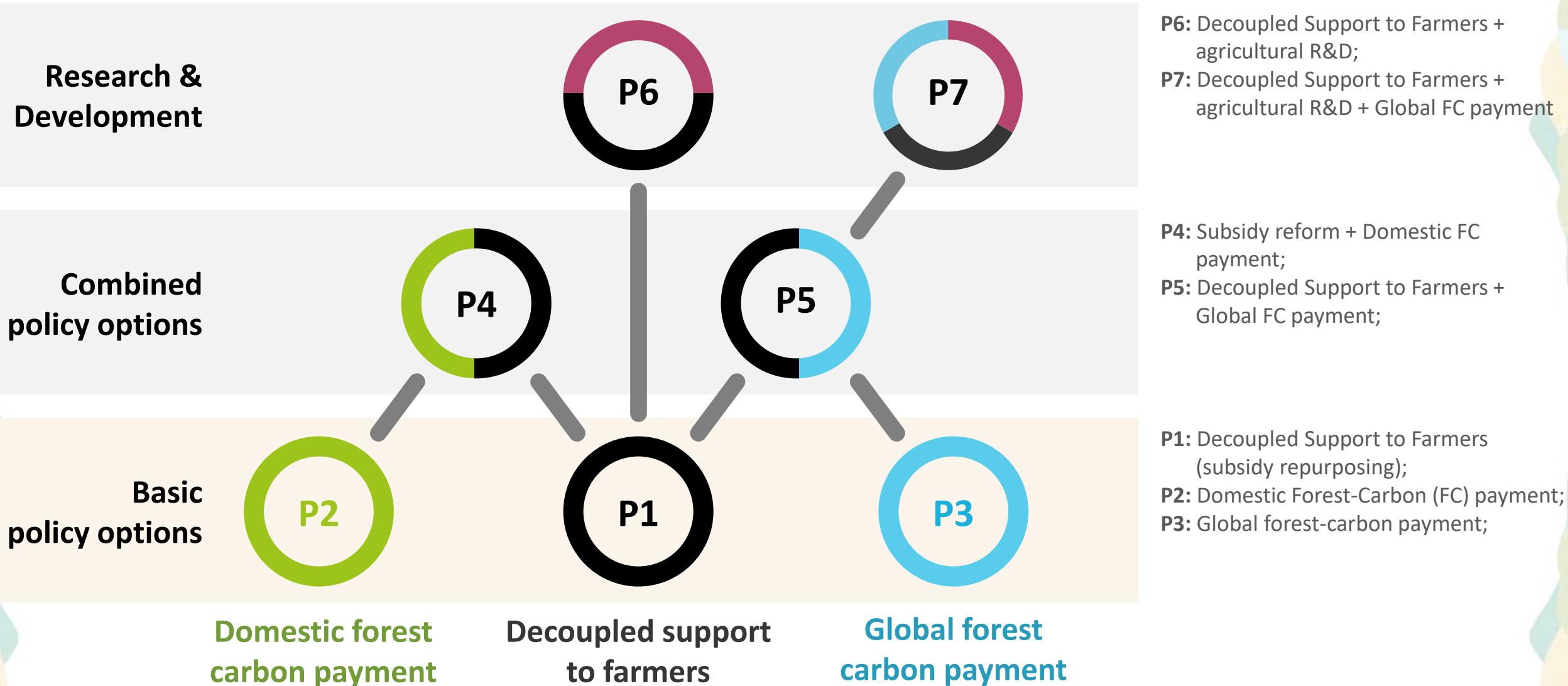
Source: Johnson et al. (2021) Economic Case for Nature report, World Bank, GPS

<https://www.worldbank.org/en/topic/environment/publication/the-economic-case-for-nature>



Impact of Alternative Nature-Smart Policies

<https://www.worldbank.org/en/topic/environment/publication/the-economic-case-for-nature>



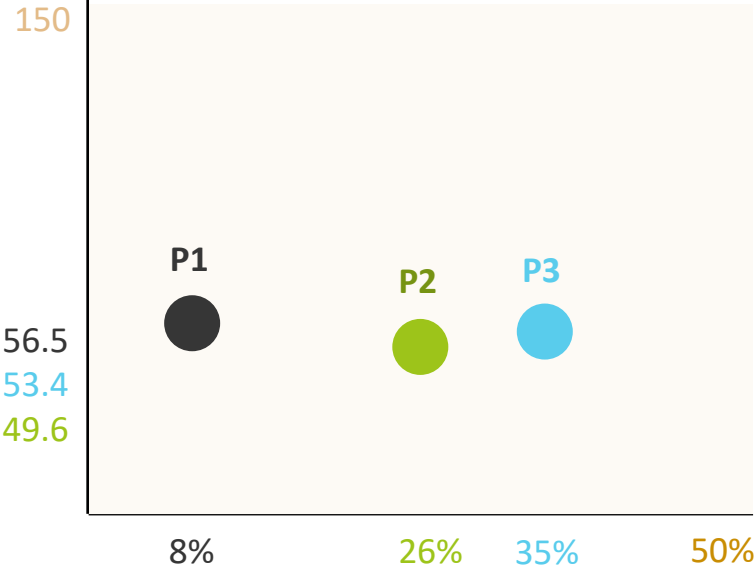
Forest carbon payments reduce natural land loss by 26-35% (12 -16 million ha). Combined policies could reduce natural land loss by 38% (18 million ha)

Basic policy options

Good for the economy

Change in real GDP rel. to BAU
(billion US\$)

Decoupled support to farmers	P1
Domestic forest carbon payment	P2
Global forest carbon payment	P3
Research & Development	



Good for nature

Avoided natural
land conversion (percent)

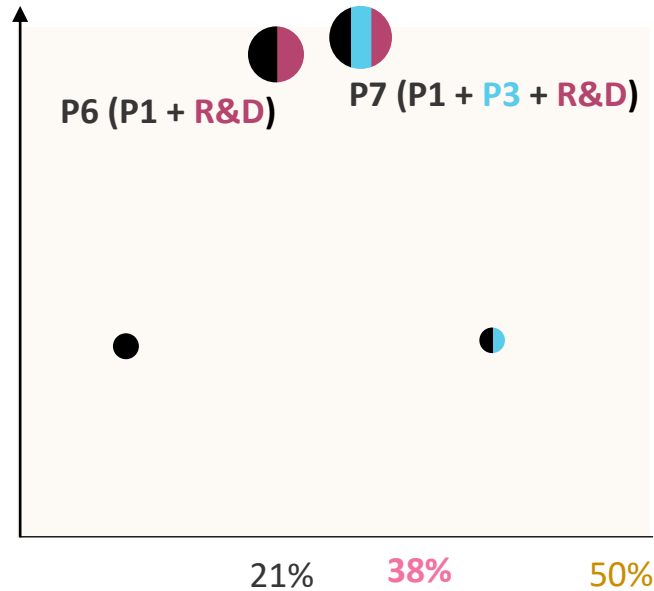
P4: Subsidy reform + Domestic FC payment;

P5: Decoupled Support to Farmers + Global FC payment

Combined policy options

Adding forest carbon payment schemes and agric R&D improves the policy impact

Good for the economy

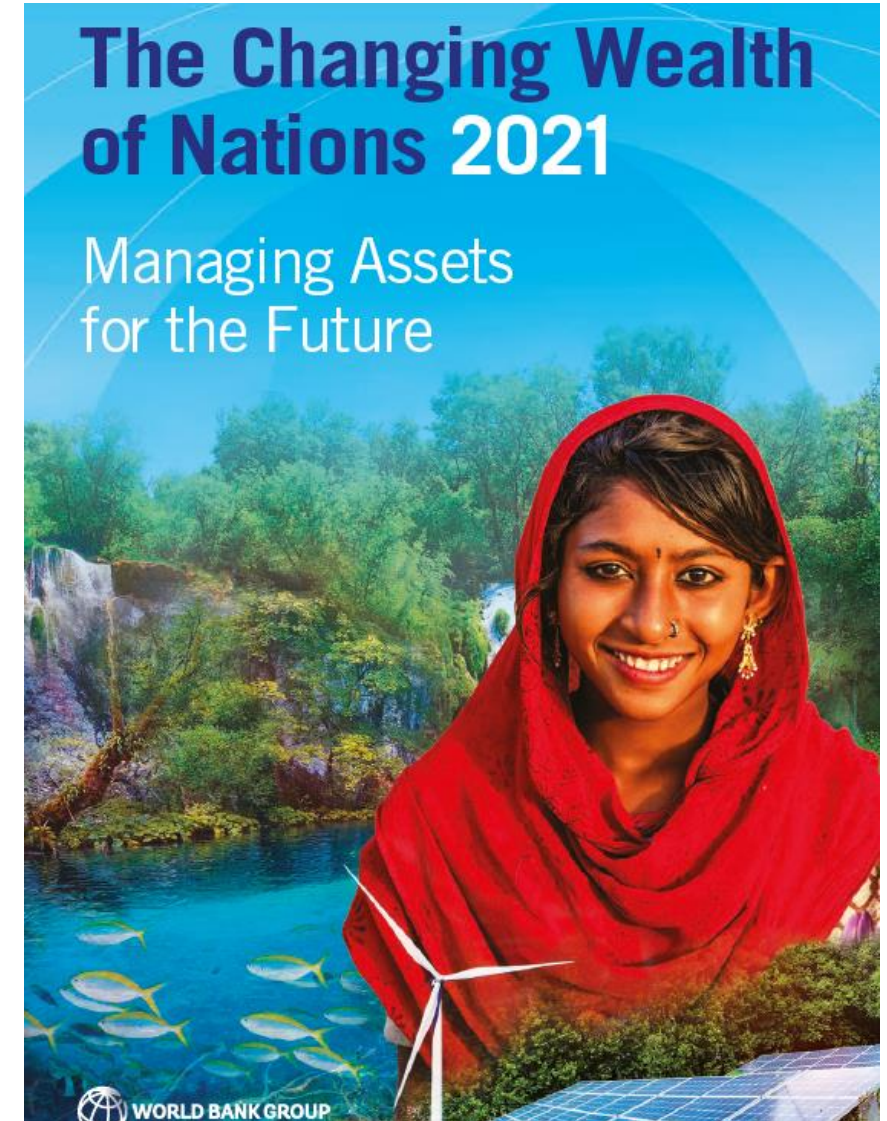


Good for nature

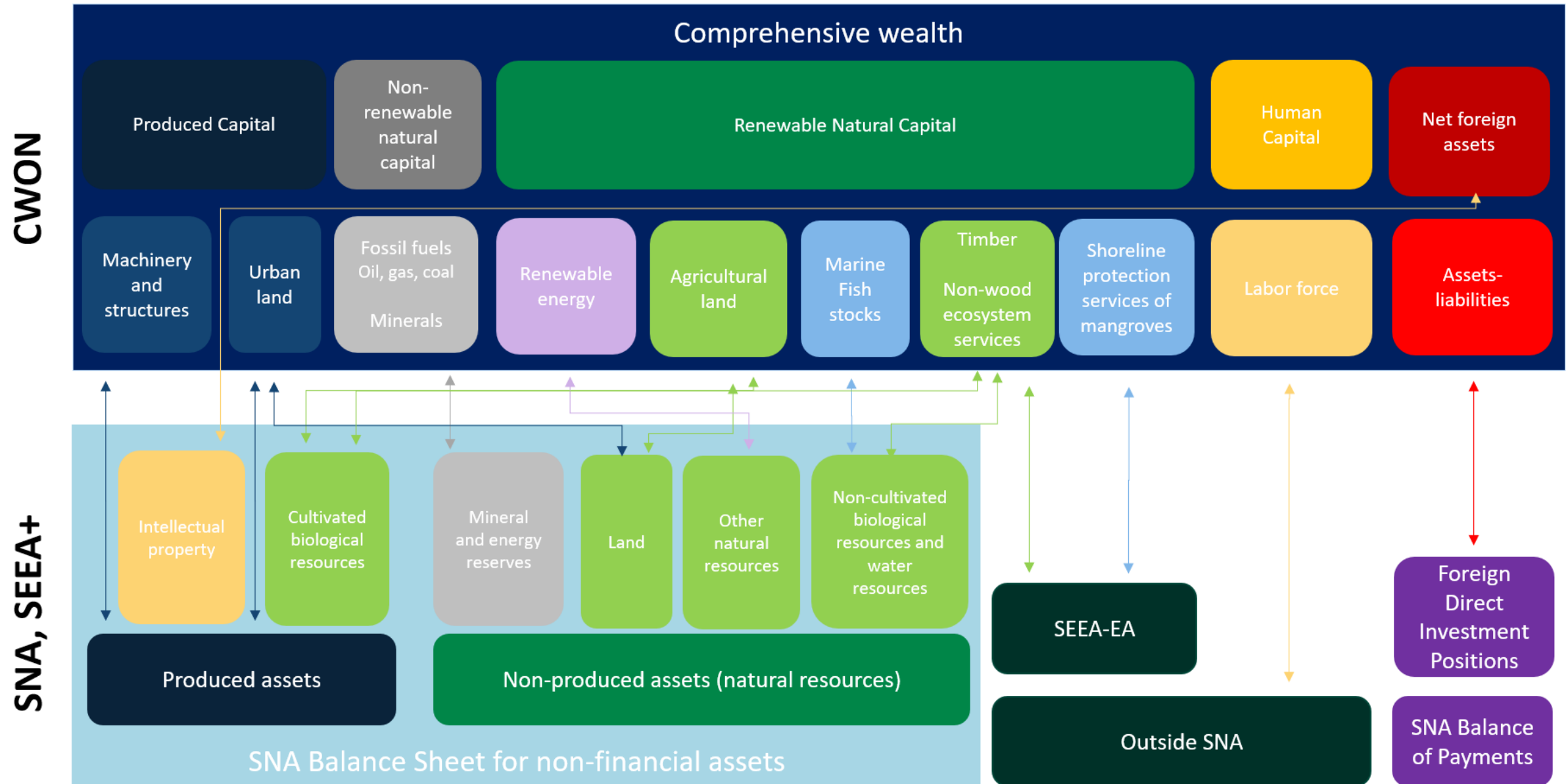
P6: Decoupled Support to Farmers + RD;
P7: Decoupled Support to Farmers + RD + Global FC payment

Changing Wealth of Nations

- **Flagship Report on Wealth Accounting:** downloads reached 42,000 (report) and 11,000 (data) in FY23
- The fifth edition of the CWON is under production
- A comprehensive methodological review to enhance alignment with international standards (SNA and UN-SEEA)
- Expanding natural capital assets – e.g. renewable energy
- Exploring limited substitutability across assets (e.g. renewable NC vs. other assets)



Broader and more comprehensive set of assets used in computing the Changing Wealth of Nations



Pillar II: Strengthening capacity for mainstreaming natural capital into investments and policies at country level

- Natural capital accounting (NCA) and valuation of ecosystem services (VES) to mainstream nature into country programs and policies
- Technical and financial support for NCA and VES
 - Integrating NCES into national statistics
 - Value NCES or produce natural capital accounts
 - Benefit-cost analysis of nature investments (conservation/restoration)
 - Analytics to inform policy reforms

• Core Implementing Countries (CICs)

- Ghana
- Ethiopia
- Nepal
- Turkiye
- Nigeria
- Bangladesh
- Lao PDR (new)
- Kenya (new)
- Zambia (new)

• Targeted Technical Assistance (TTA)

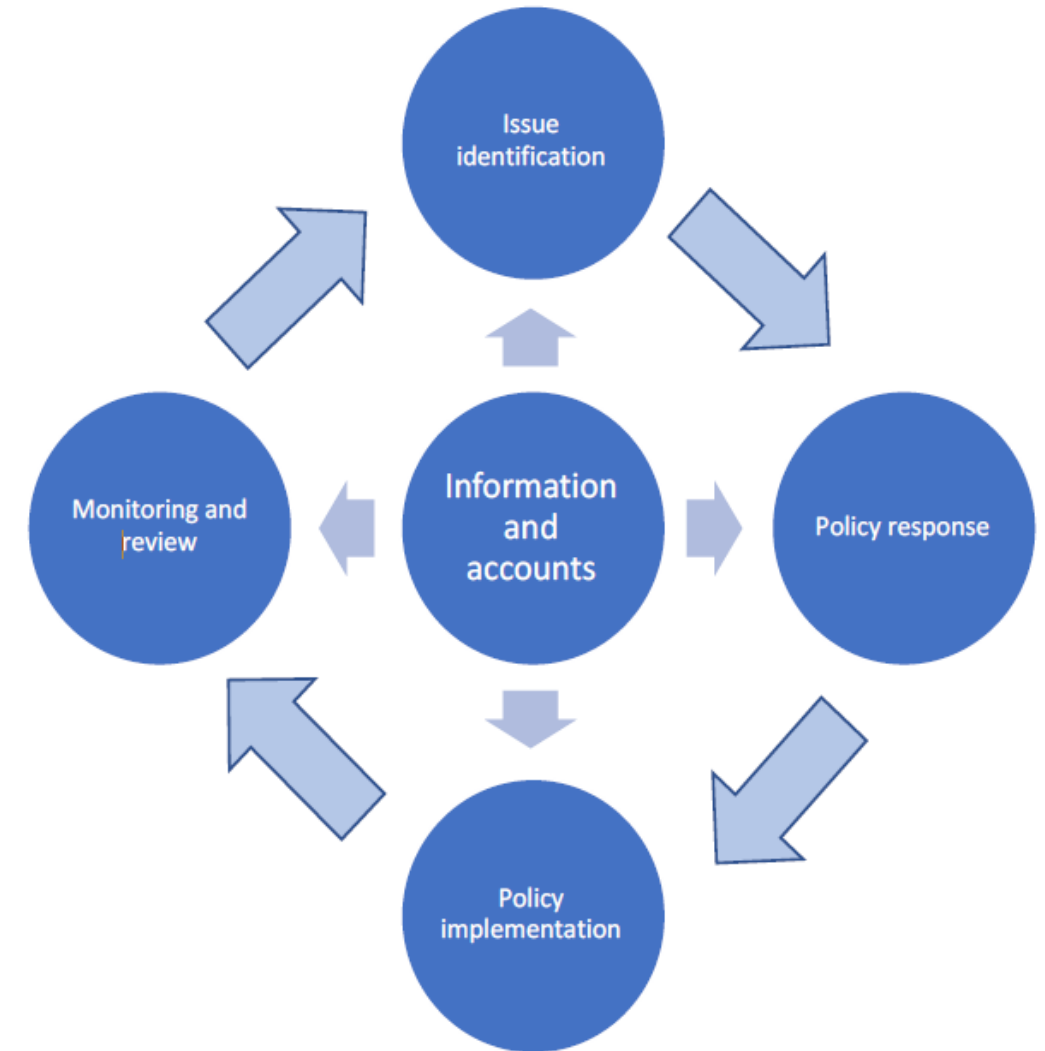
- Medium size grants (\$250K)
(e.g. Armenia, India, Indonesia, Kenya, Mexico, Rwanda, Uganda, Zambia)
- Small just in time (JIT) grants (\$75K)
(e.g. Chad, Bolivia, Dominican Rep., Kazakhstan, Kyrgyz,, Pakistan, Serbia, Uzbekistan)

Reverse Causation Logic for Evidence Based Policy Making

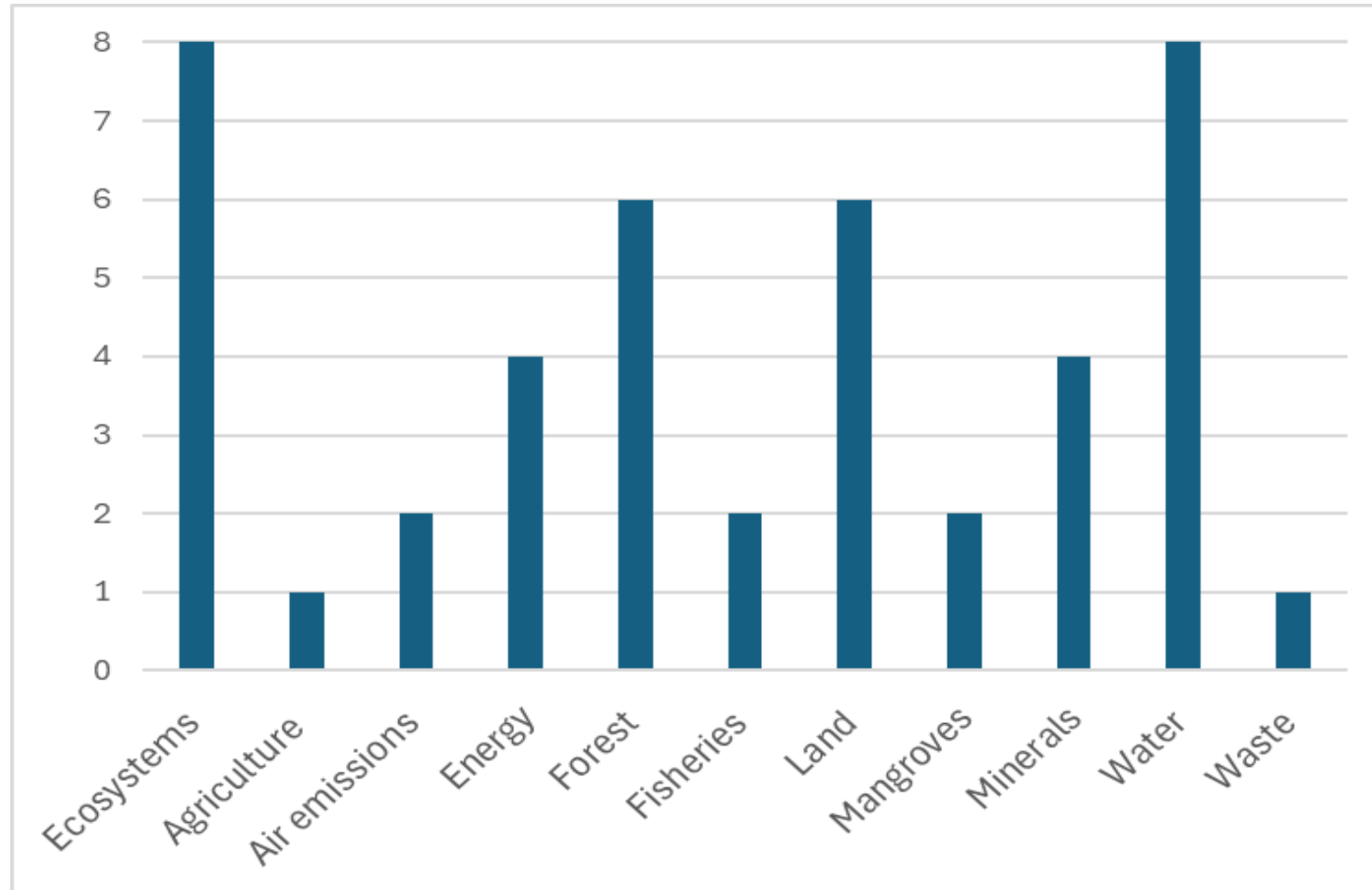
1. What investments/policies related to nature and sustainability do you need to inform, and how?

2. What analysis will be necessary to inform the investments / policies?

3. What data and capacity building will be necessary to reach the objectives?

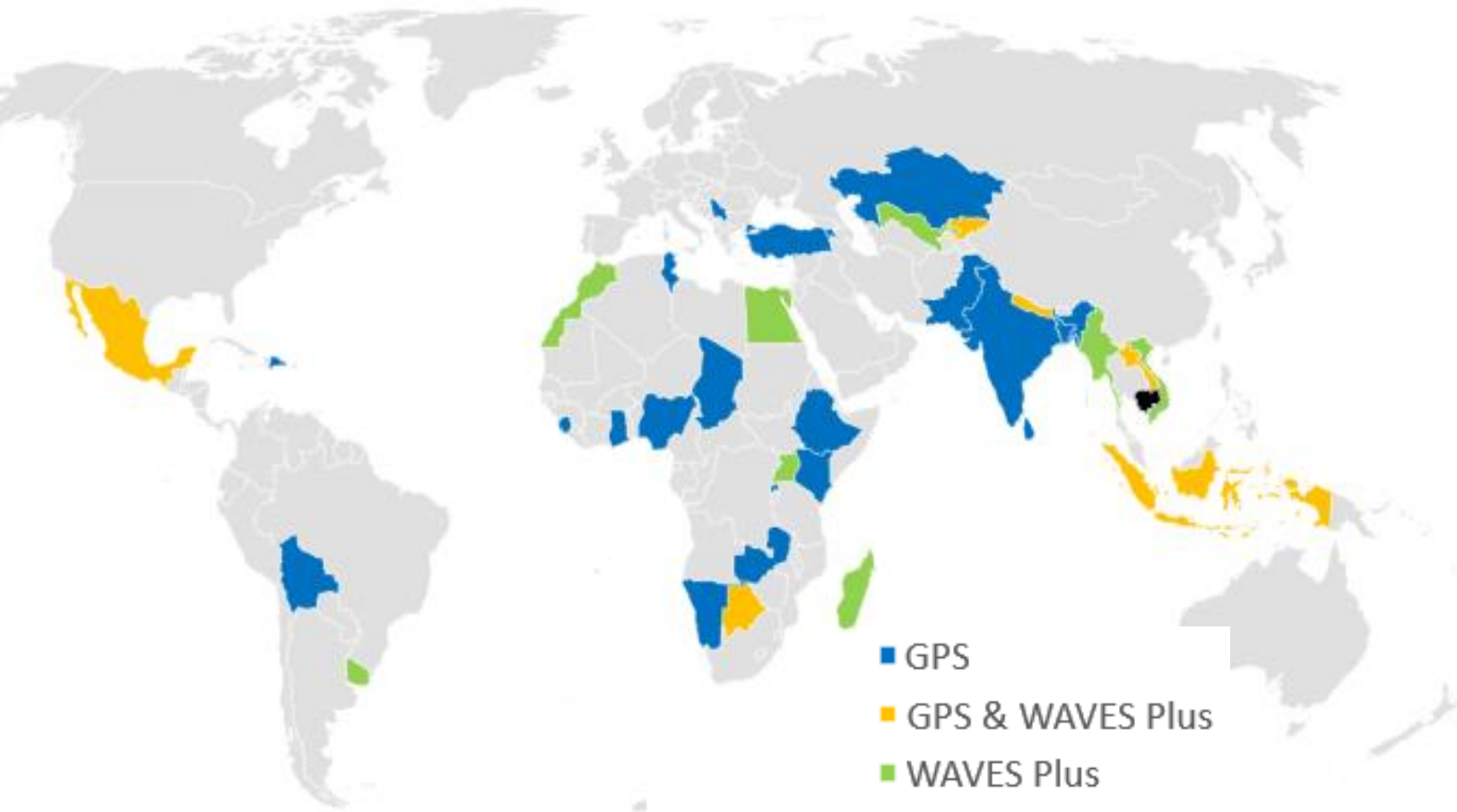


Natural Capital Accounts developed with support from WAVES and GPS



47 natural capital accounts developed across 15 countries

Integrating the Values of Nature into Policy and Investment Decision Making

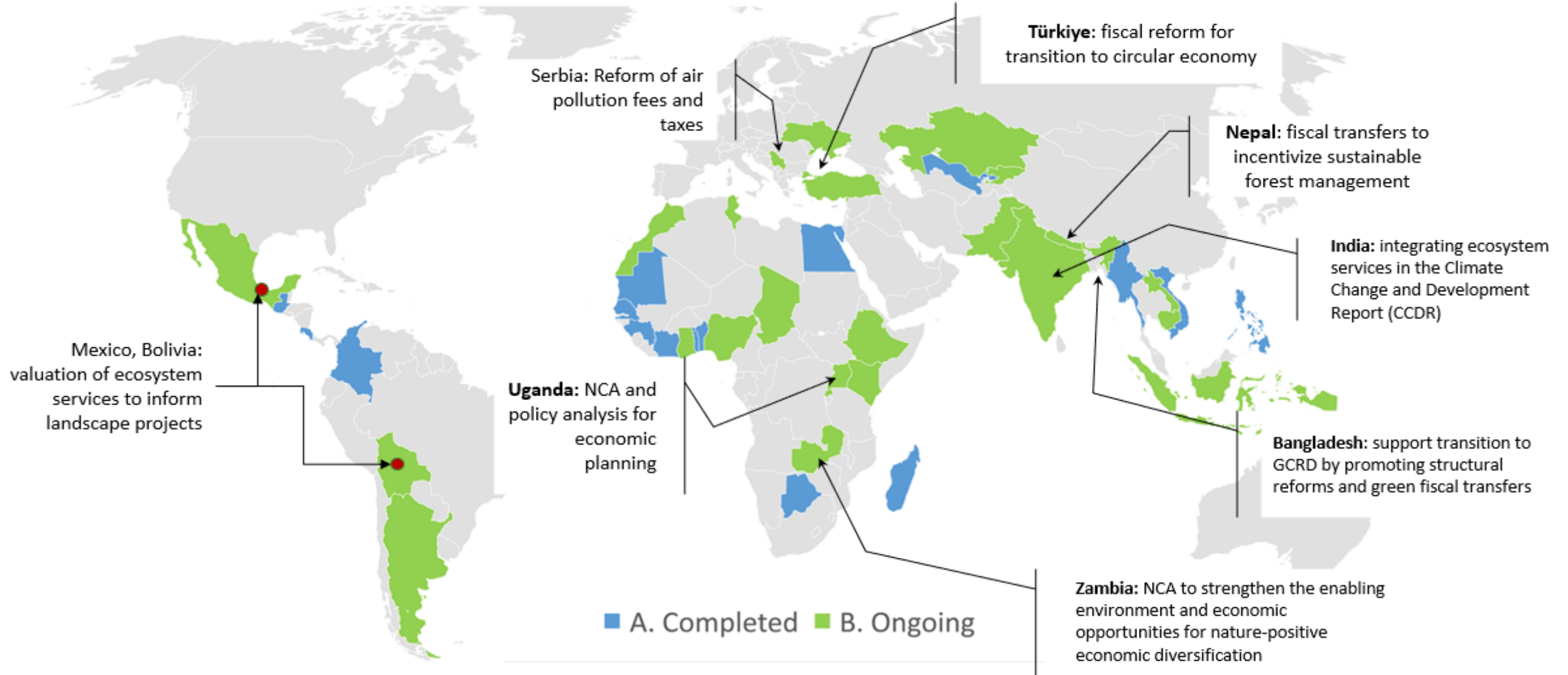


Results (FY23)

- Natural capital data/accounts and/or analysis produced **in over 28 countries**
- 25 investment projects informed worth **\$4.19 billion in 24 countries**
- Over 70 national policy or engagement documents (CCDRs/ CPFs) informed **in 27 countries**

Natural Capital work expanded to about 40 countries

Natural capital data and analysis used across a wide range of policy areas



Pillar III: Embedding Nature into Finance

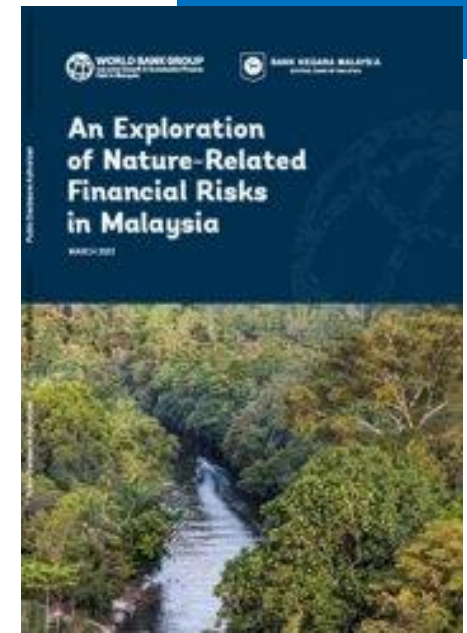
Data



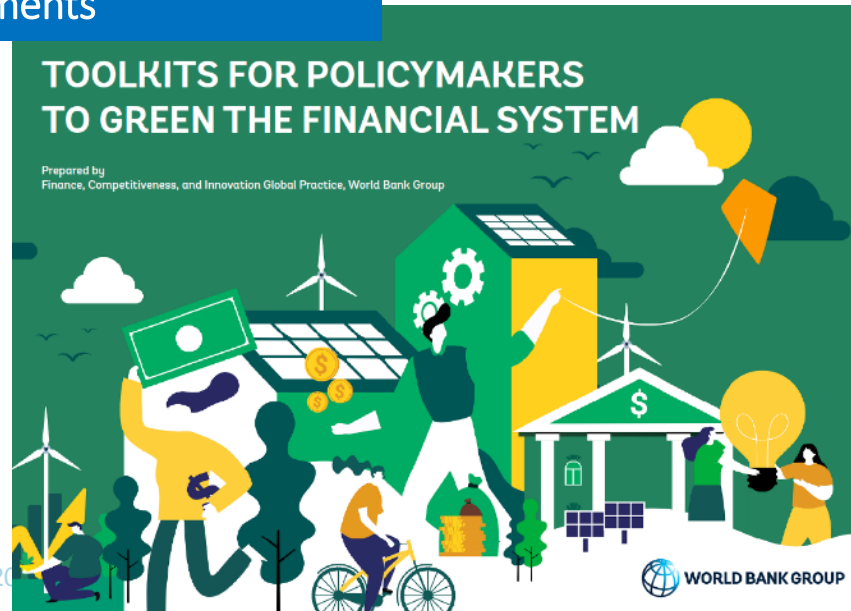
Research



Regulatory Tools



Capacity building, disclosure, and engagements



Financial Instruments



Increasing use of ESG data

- Nature risks are not adequately priced into financial markets and not accounted for in investment practice and financial decisions => **misallocation of capital**
 - Direct impacts of nature loss could be amplified by cascading feedbacks across markets ==> **risk multipliers for people, economies and global financial system.**
 - Reduce finance flows to harmful activities (**greening finance**) and increase investment in nature-positive activities (**financing green**)

Usage of World Bank ESG data almost doubled during FY23 (reached **40,000** visitors as compared to target of 22,000)

Examples

- Uptake of GPS Sovereign ESG Data and methodologies into indexes and ESG Risk frameworks used by investors
- Promoting **sovereign sustainability-linked bonds (SLBs)**
 - Advancing the issuance of SLBs in selected client countries
- Support for national governments developing their **sustainability disclosure legislation**



Sustainability-Linked Bond Principles
Voluntary Process Guidelines
June 2023



Key Take Aways

- ✓ **Destruction of biodiversity and ecosystem services leads to material economic loss.** The scale of the benefits from ecosystem services is estimated at US\$125 trillion each year, **1.5 times global GDP**.
- ✓ **Conservative estimates from partial loss of services** such as wild pollination, provision of food from marine fisheries and timber from native forests, could result in a significant decline in global GDP: \$2.7 trillion in 2030 (-2.3 percent annually by 2030).
- ✓ Economies, particularly in low-income countries, cannot afford to ignore loss services provided by nature.
- ✓ Policy makers, regulators, investors and financial institutions need to consider the **macro-criticality of nature-related dependencies, impacts and risks**
- ✓ **Better data, natural capital accounting and valuation of ES are key for addressing systemic failures that accelerate nature loss**
- ✓ **Integrated environmental-economic analysis is key to support mainstreaming of nature into macro policies and fiscal reforms.**



Thank you!

More information available:

The Global Program on Sustainability

gps@worldbank.org

<https://www.worldbank.org/en/programs/global-program-on-sustainability>

WBG Environment
@WBG_Environment

