

2020/2021

GLOBAL PROGRAM ON SUSTAINABILITY

ANNUAL REPORT



Administered by
THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



GPS
Global Program
on Sustainability



WAVES

© 2021 The World Bank
1818 H Street NW, Washington DC 20433
Telephone: 202-473-1000; Internet:
www.worldbank.org

Some rights reserved: This work is a product of the staff of The World Bank. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. 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 concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions: The material in this work is subject to copyright. Because The World Bank 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.

Attribution: Global Program for Sustainability: Annual Report 2020–2021 c. © World Bank.”

Cover photo: Raja Ampat island in West Papua, Indonesia (mariusltu/AdobeStock)

All queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

CONTENTS

Executive Summary	7
Pillar One: Global Information on Sustainability	17
Component 1: Measuring Sustainability	19
Component 2: Mainstreaming Sustainability	24
Pillar Two: Country Implementation	29
Morocco	30
Zambia	32
Uganda	34
Egypt	37
Selecting new CIC countries	39
Update on targeted technical assistance	40
Africa Community of Practice on Natural Capital Accounting	49
Global outreach: Policy Forum on Natural Capital Accounting for Better Decision Making	51
Pillar Three: Sustainable Finance	53
Data: Improved Sustainability Information for Financial Markets	54
Research Agenda: Effects of Sustainability on the Financial Sector	55
Finance Assessments	58
Capacity Building, Disclosure, and Engagements	58
Monitoring & Evaluation	61
Financial Report	72

Boxes, Figures & Tables

Box 1. Contribution to The Economics of Biodiversity: Dasgupta Review	18
Box 2. Outreach and dissemination of Road to Kunming reports	20
Box 3. Impact of COVID-19 on Human Capital by region 2018 (% of total)	22
Box 4. Where to Invest \$1 million in short-term recovery without degrading Natural Capital?	26
Box 5. Morocco: Integrating NCA in the Blue Economy	32
Box 6. Cambodia: Informing a World Bank project on Sustainable Landscape and Ecotourism via GPS TTA support	42
Box 7. Africa Regional Community of Practice at a glance	50
Box 8. Blogs published from Jan 2020 to June 2021	55
Box 9. World Bank Sovereign ESG Data Portal: key facts	56
Box 10. Research Publications on Sustainable Finance prepared 2019–2021	57
Box 11. Detailed activities related to capacity building and engagement	60
Figure 1: Environmental Fiscal Reform and its potential double dividend	23
Figure 2: Example images of GeoESF and its automatic reporting feature	24
Figure 3. Summary data on approved TTA Grants	47
Figure B1: Change in 2030 Real Gross Domestic Product (GDP) under select Ecosystem Collapse Scenarios compared with No-Tipping-Point Scenario, by Income Group	18
Figure B2.1 (above): Report covers from the Road to Kunming series	20
Figure B.2.2 (below): twitter promotion for Unlocking Nature Smart Development and The Economic Case for Nature	20
Figure B3: Impact of COVID-19 on Human Capital by region 2018 (% of total)	22
Figure B4: Economic and environmental impacts of investment	26
Figure B7: Distribution of Africa Regional Community of Practice members	50

Table 1: Progress in achieving GPS / Waves Plus results	9
Table 2. Update on TTA tasks approved in FY19 and completed in FY20	43
Table 3: New TTA tasks approved in FY21	48
Table 4. Hybrid approach to result reporting	63
Table 5. Progress in achieving GPS/ WAVES Plus results	64
Table 6. Progress in achieving GPS Impact indicators	64
Table 7. Pillar 1 Result indicators (GPS Results Framework)	65
Table 8. Pillar 2 Result indicators (WAVES Plus)	67
Table 9. Pillar 2 Result indicators (GPS)	69
Table 10. Pillar 3 Result indicators (GPS Results Framework)	70
Table 11. Financial Summary (in US\$, as of June 30, 2021)	74
Table 12. Donor Pledge and Contribution Summary (as of June 30, 2021)	76
Table 13. WAVES Plus Trust Fund: Summary of disbursements and commitments (in US\$, as of June 30, 2021)	77
Table 14. GPS Trust Fund: Summary of disbursements and commitments (in US\$, as of June 30, 2021)	79
Table 15. Disbursements by expense category (in US\$, as of June 30, 2021)	81

Tropical fish swim amongst mangroves in the Caribbean Sea in Panama (Damsea / shutterstock)



EXECUTIVE SUMMARY

The Global Program on Sustainability (GPS) is the World Bank's umbrella program on Natural Capital Accounting (NCA) and the economics of sustainability, and includes the activities supported by the WAVES Plus Trust Fund (Wealth Accounting and the Valuation of Ecosystem Services), which will complete its activities at the end of 2022. GPS is supported by Germany's Federal Ministry for Economic Cooperation and Development (BMZ), the Department for Environment, Food and Rural Affairs, United Kingdom (DEFRA), Netherlands Ministry of Foreign Affairs (MINBUZA), and the State Secretariat for Economic Affairs, Switzerland (SECO)

Taking over from where the previous Annual Report left off, this report provides an overview of activities financed by the GPS and WAVES Trust fund till the end of Fiscal Year 2021 (June 30, 2021), thus covering two fiscal years (FY20 and FY21).

THE COVID PANDEMIC: CHALLENGES AND OPPORTUNITIES

This reporting period was shaped by the COVID pandemic, which created new challenges for the program. At the same time, the pandemic underlined the relevance of GPS to global and country level dialogue on how to make development sustainable and resilient to precisely such sudden shocks as COVID-19.

In terms of *challenges*, COVID has resulted in a suspension of all the World Bank's in-person missions, including those related to the implementation of GPS. Nevertheless, the program continued its global and country level engagement thanks to business continuity arrangements. These include virtual interaction with partners and clients, supported by the network of staff assigned to World Bank country offices, all of which have continued to operate through home-based work arrangements.

In most cases, this approach enabled country office staff to maintain regular interactions with government counterparts, and in several cases to carry out “virtual missions” involving Headquarter-based staff as well. Activities on country tasks initiated in previous years under WAVES Plus have continued, and in most countries, reached completion; GPS has started to operate in 15 new countries under the Targeted Technical Assistance window (TTA); and preparatory work has started on the Core Implementing Country window (CIC), with six new CICs expected to join the program in in FY22.

On the *opportunity* side, the pandemic has highlighted the close link between human and planetary health. An estimated 60 percent of all known human infectious diseases are zoonotic in origin (transferred from animals to humans). There is evidence to show that human encroachment on natural areas

increases the likelihood of zoonosis processes occurring more frequently. This makes it essential to fully integrate nature and ecosystems into the post-COVID development model, to make the recovery last and ensure that societies will be more resilient to future shocks. More generally, efforts under way to reignite growth through stimulus programs are opening a window of opportunity to integrate environmental consideration in the design and implementation of such programs.

With its emphasis on data and analysis of the economics of sustainability, the GPS is as well placed as ever to meet the challenge of integrating nature in the development process. Additional financial support pledged by donors during this reporting period (two million euros pledged by Germany; and three million Swiss Francs pledged by Switzerland) will enhance the program’s ability to make a difference.

SUMMARY OF PROGRESS

Overall, and despite the COVID-related challenges, the program is broadly on track to achieve the results defined in the WAVES Plus and GPS results frameworks (Table 1), given the time left prior to the closing of the two Trust Funds (that is, 1.5 years and 4.5 years for WAVES Plus and GPS respectively): for the vast majority of indicators (83%) the expected result has either already been

met (or indeed exceeded, for 58% of the indicators); or activities are comfortably on course to achieve it (24%). For less than 20% of the indicators, activities to meet targets are expected to start soon, barring new COVID-related restrictions to travel, which may result in a slowdown of country level activities (these account for over half of the GPS budget).



A network of mangroves and estuary in coastal west Africa (Curioso. Photography / Shutterstock)

Table 1: Progress in achieving GPS / Waves Plus results

Result Framework/ pillar	Number of indicators	Share of indicators			
		Meeting or exceeding target	On their way to achieve target	Relevant activities expected to start soon	Total
GPS	26	38%	35%	27%	100%
Program wide	7	29%	29%	43%	100%
Pillar 1	6	33%	50%	17%	100%
Pillar 2	4	0%	75%	25%	100%
Pillar 3	9	67%	22%	11%	100%
WAVES Plus	19	84%	5%	11%	100%
Pillar 2	19	84%	5%	11%	100%
Total	45	58%	24%	18%	100%

^a For each pillar, the table reports the share of the corresponding indicators that meets or exceeds their end-of-program targets, taking into account the time remaining prior to the closing of the WAVES Plus Trust Fund (December 2022) and the GPS Trust Fund (December 2025)

PILLAR 1: GLOBAL DATA AND INFORMATION

GPS provides global data and analytical tools on Natural Capital and Ecosystem Services to spur the international debate on the economics of sustainability and to provide entry points for country level engagement. The importance of this information has been underscored by the Dasgupta Review (released in February 2021). Commissioned by the UK government and released in February 2021, the review made a strong case for fully assessing the impact of our interactions with nature and rebalancing our demand with nature's capacity to meet it. The GPS team contributed to the Dasgupta Review, shedding light on the impact of collapse in certain ecosystems on countries' economies. Most of the work is relevant to the larger goal of promoting evidence-based decision-making. During the reporting period, GPS has supported various cutting-edge data and analytical products. These include:

- **Road to Kunming:** The World Bank has undertaken a series of reports that lay out the economic rationale for investing in nature. These seek to inform the process leading up to the 15th Conference of the Parties (COP-15) of the Convention on Biological Diversity. The first report in the series, *Mobilizing Private Finance for Nature* (published in September 2020), argues that the financial sector has a critical role to play in addressing the global biodiversity crisis, and that governments and regulators hold the key to harnessing the power of the financial sector to mobilize private finance at scale to protect nature. The second report *The Economic Case for Nature* (published June 2021), lays out the economic rationale for investing in nature and analyzes policies that can reduce ecosystem degradation and simultaneously improve economic outcomes.

The third report, *Unlocking Nature-Smart Development: An Approach Paper on Biodiversity and Ecosystem Services* (published in August 2021), proposes a menu of global response areas intended to guide governments and inform broader discussions on how to integrate nature into development agendas.

- The new edition of the *Changing Wealth of Nations* (to be released in the Fall of 2021) includes the most comprehensive and recent database of wealth across a broad portfolio of assets (natural, human and produced capital) calculated for 146 countries for the years 1995 to 2018 using market exchange rates in accordance with rigorous international standards (System of National Accounts—SNA; and System of Environmental-Economic Accounting—SEEA). It will also show how wealth accounting can be applied to complex policy analysis to yield better informed decisions while charting the development pathway for a country in uncertain times. This edition also has an expanded coverage of Natural Capital, including components of blue Natural Capital for the first time. The book will be released in 2021, and several background papers have already been circulated to inform the dialogues with countries during the report preparation process.

Work on Pillar 1 also saw progress on the data platform, which is intended to be a one-stop shop for data and analysis tools produced with GPS support; and on the Ecosystem Services Assessment Toolkit (ESAT), intended to help users better understand, visualize and report impacts of Bank-supported projects on Ecosystem Services.

The support for environmental fiscal reforms was launched to mainstream environmental and Natural Capital management into countries' fiscal policies. In addition, an environmental-economic modeling platform was initiated to help countries integrate environmental sustainability considerations into economic decisions through formal modeling of the impact of policy and investment decisions on environmental and economic variables and, conversely, the impact of environmental conditions on economic and fiscal performance.

Pandemic-related economic distress prompted a just-in-time analysis for the Latin American region, aiming to identify sectors with a potential to maximize the number of jobs created per unit of investment (namely, job multipliers), and at the same time steer economies toward an environmentally sustainable course (environmental multipliers).

Wilfred Jurado Guaimaral works high on a mountainside on his farm, growing passion fruit in the township of La Paz in Colombia (Dominic Chavez / World Bank)



PILLAR 2: COUNTRY LEVEL SUPPORT

GPS continues at the level of individual countries to promote development and use of Natural Capital data through multiple instruments:

- Support to Core Implementing Countries (CIC), for more in-depth engagement;
- Targeted Technical Assistance (TTAs), for just-in-time support; and
- Regional Communities of Practice (CoPs), for peer exchange and learning

CIC window: supporting integration of Natural Capital in development planning processes in Uganda, Zambia, Egypt, Morocco

In all four countries, noteworthy successful use has been made of GPS/WAVES results for policy applications, and the governments concerned have shown marked interest in further development of the accounts.

In **Uganda**, the Third National Development Plan included Natural Capital Accounting (NCA) as one of the strategies to guide investment, development, and management of natural resources in the country. The Bureau of Statistics has drafted a *National Plan for Advancing Environmental Economic Accounting*, to ensure that the country continues to produce and use NCA. In addition, publication of adjusted macro-indicators is now institutionalized within the Ministry of Finance.

Zambia launched the Forestry, Lands and Water accounts in November 2020 at a high-level event with the participation of three Ministers and

the World Bank Country Manager for Zambia. Policy impact has been visible: the Forest Account Technical Report informed the Apiary National Strategy (involving honey and wax) under the Ministry of Lands and Natural Resources. Zambia included in the 2021 National Budget a budget line for Forest and Tourism Accounts, to inform land use planning in areas with untapped tourism potential. The country has started to develop Energy and Mining Accounts on its own. Follow-up support under GPS' Targeted Technical Assistance (TTA) window will support institutionalizing and mainstreaming of Natural Capital Accounts for policy application, including enhanced development planning.

Morocco has taken important first steps in developing Natural Capital Accounts and set the stage for their future use. Fisheries accounts and related modeling work is supporting the design of interventions in the new World Bank Blue Economy Program, providing key analytical inputs to the development of the Halieutis Plan 2030—the country's main fisheries sector strategy. Accounts and modeling for agriculture is being taken forward by the World Bank's Agriculture and Food Global Practice as part of their technical assistance support to the Green Generation Plan 2030. Finally, the country's statistical agency (HCP) has expressed an interest in developing water accounts.

In **Egypt**, waste accounts for the Governorates of Port Said and the Red Sea have proven instrumental in the design of facilities for sorting and recycling waste. The waste accounting framework is being considered as a template for standardizing the tracking of waste throughout the country.

The air emissions accounts offer one of the first efforts to integrate greenhouse gas (GHG) emissions and local air pollutants such as nitrogen dioxide, sulfur dioxide and particulate matter into a single database. This methodology will also be used in the World Bank's Greater Cairo Air Pollution and Climate Change Project, which plans to expand the air emissions inventory to include mobile sources. The integrated database will provide a comprehensive point of reference for air pollution monitoring and reporting.

Providing just-in-time policy support to eight countries and one subregion via the Targeted Technical Assistance (TTA) window

TTAs are proving to be a valuable instrument of engagement, particularly as they are designed to be closely linked to World Bank investment programs. The TTA work completed during this reporting period has resulted in the provision of evidence and insights on Natural Capital and Ecosystem Services that is informing the design of 10 World Bank operations, worth \$970 million.¹ Countries where TTA work was completed included Cambodia, Kyrgyz Republic, Lao People's Democratic Republic, Madagascar, Myanmar, Nepal, Uzbekistan, Vietnam. A regional activity related to the West Africa Coastal Areas Management (WACA) program showed significant progress through analytical work on mangrove protection for coastal flooding and the cost of coastal environmental degradation—now being used to expand dialogue and work on the economic implication of degradation.

Indonesia had concluded the WAVES-supported CIC work in 2019, which has resulted in accounts for land cover and land extent; ecosystem accounts for peatlands; and data and modeling support for the country's Low-Carbon

Development Initiative (LCDI). Building on these results, GPS has carried out deeper-dive policy-oriented work in two strategic areas, namely valuation and management of coastal resources (including mangroves); and, in close collaboration with the Peatland Restoration Agency (BRG), economic analysis of policy options for improved peatlands conservation and restoration.

The two main areas of operational work that TTAs inform are forests and landscape management (Indonesia, Cambodia, Kyrgyz Republic, Lao PDR, Madagascar, Nepal, Uzbekistan), and Ecosystem Services in coastal areas (Indonesia, Myanmar, Vietnam, and the WACA program).

In FY21, 15 new TTAs started, focusing on four themes: Policy applications of NCA/VES, Greening of COVID Recovery programs, Environmental Fiscal Reform and support to National Biodiversity Strategies and Action Plans (NBSAPs).

Scaling up NCA engagement through regional Communities of Practice (CoPs)

Following its launch in mid-2019, the Africa CoP has rapidly become an important forum to continue the conversation between countries in the continent on NCA. A WhatsApp group with nearly 200 members became a lively hub for sharing information on new publications, activities and events, as well as seeking information on the 'how-to' of accounts. The CoP secretariat has been able to facilitate south-south knowledge sharing between Brazil and Mozambique; deliver training on SEEA and developing NCA roadmaps for Mozambique and Nigeria; and provide access for CoP members to several online trainings.

¹ All dollar amounts are US dollars unless otherwise indicated.

A successful webinar series began in May with a webinar on Linking Policy to NCA, with further webinars every month thereafter.

Continued NCA dialogue through Policy Forum

The GPS continues the WAVES tradition of global engagement and dialogue on NCA through Policy Forum on Natural Capital Accounting for Better Decision Making. The overall aim of the Forum is to share, explore and synthesize the experiences of countries that have been producing and

using NCA, with the objective of providing guidance for countries on how to improve the use of accounting for policy development and better decision-making.

Due to the pandemic, there was no forum in 2020. *The Fifth Policy Forum on Natural Capital Accounting for Better Decision Making – Greening the Recovery* will take place in September 2021. In June 2021, an expert workshop was held to finalize the scope of the forum and discuss the technical material to be presented.

PILLAR 3: SUSTAINABLE FINANCE

In FY20–FY21 demand continued to grow for data and tools that can help financial market actors contribute to achieving the Sustainable Development Goals, the Paris Agreement goals, and the goals that are expected to be set by the Post-2020 Global Biodiversity Framework. GPS support to this work has been timely and has fed into several influential groups, like the Coalition of Ministers for Climate Action, the Network for Greening the Financial System (NGFS: for central banks and financial supervisors), and the Sustainable Banking Network. Some highlights include:

- The Sovereign ESG Data Portal, which launched in late 2019 to provide key information on country-level Environmental, Social and Governance (ESG) performance, has been widely used by investors in portfolio analysis and has even informed the design of financial indices. It was referenced in a major report of a US financial regulator (the US Commodity Futures Trading Commission).
- Nine research publications were delivered during the FY20–FY21 time period, on sustainable finance topics ranging from ‘mobilizing private finance for nature’ to ‘climate risk in pension funds.’ The findings of some of these papers were shared with members of the Coalition of Finance Ministers for Climate Action and the NGFS. ‘Mobilizing Private Finance for Nature’ was referenced several times in the finance chapter of the Dasgupta Review.
- The Pillar 3 team began the development of a methodology for a nature-related risk assessment of a country’s banking sector. An assessment was completed and published for Brazil and an assessment for Malaysia is under way. Additionally, Pillar 3 supported the development of the methodology for the Climate and Environmental Risk and Opportunity (CERO) Assessments under the Financial Sector Assessment Program (FSAP: carried out jointly by the World Bank and the IMF).

This analysis provides countries with an assessment of the climate and environment-related financial risks they face, and associated opportunities. The methodology was presented to the World Bank Board in June 2021.

- The Pillar 3 team carried out a number of activities related to capacity building and technical assistance on the implementation of sustainable finance measures,

and published the [Toolkits for Policy makers to Green the Financial System](#).

- Technical assistance was provided to the government of Thailand on integrating ESG into the government pension fund; and to the government of Colombia on greening its financial sector. Three additional country and regional sustainable finance contributions are under way (for Sub-Saharan Africa, Nepal, and Cambodia).

LOOKING AHEAD: CONTEXT

Progress made in 2019–2020 provides a solid foundation for GPS to make further important contributions in the near future. At the global scale, the meetings of the Biodiversity Convention (COP-15) and of the Climate Convention (COP-26) are expected to create new momentum for scaled-up action on climate and nature. GPS will be able to support such momentum, with the operationalization or finalization of innovative analytical work, such as the *Economic Case for Nature* and *The Changing Wealth of Nations*.

At the country level, there is a growing awareness of the importance of greening the development process, particularly in the context of the post-COVID recovery. To make this a reality, countries will need the data and tools for properly integrating nature into stimulus programs and recovery strategies.

GPS can assist those efforts, offering different entry points for engagement (its CIC, TTA, COPs windows) to accommodate different country circumstances.

Finally, in the sustainable finance arena, following progress made on the climate front, stakeholders are increasingly cognizant of the importance of assessing the risks posed to financial markets by the loss of biodiversity (as well as the opportunity to mobilize funding in support of sustainable management of nature). Additional momentum in this direction will be provided by the Task Force on Nature-related Financial Disclosures (TNFD), and its work to develop a reporting framework. With its ability to connect data on Natural Capital with financial market engagements, GPS is well positioned to make important contributions to global efforts to integrate nature into decisions made by financial markets.

LOOKING AHEAD: PROGRAM ACTIVITIES

In terms of GPS operations, in FY22 the program will continue implementing the activities envisaged in the workplan endorsed by the donors in October 2020. Highlights include:

- Preparation of new global reports, such as the next edition of *The Changing Wealth of Nations* (CWON 2023) and the report on Environmental Fiscal Reform;
- Engagement in up to six new Core Implementing Countries (CICs), based on the approach and process defined in FY21; and
- Technical work on green finance to define risks metrics and Key Performance Indicators (KPIs) for assessing climate- and nature-related outcomes to which financing can be linked.

In addition, in accordance with the M&E plan endorsed by the donors in June 2021, the GPS team will kick-start work on the program's impact assessment, including the overall framing of the

exercise, and the approach to define baselines to assess the program's contribution to transformational change. The current workplan will also be updated, with a view to discussion at the 2021 Steering Committee of a proposal for the scaling up of activities made possible by the additional resources pledged by donors at the end of 2020.

Assuming that travel restrictions will ease in the near future, the pace of implementation of the county level work is expected to pick up, and with it, the rate of spending, since over half of the program resources are earmarked to country and regional work.

Risks

The GPS team will remain alert to the risks that external factors could pose to program execution (and correspondingly financial advancement), particularly pandemic-related challenges, such as new COVID variants or other pandemic related challenges. At present, these risks seem to be manageable, but should the situation change, the World Bank will inform the GPS donors as needed.

A small hill top farm looks towards the snow capped mountains in Nepal (bonga1965 / Shutterstock)



Aerial view of shrimp farms in
Phu Yen, Vietnam (Nguyen Quang
Ngoc Tonkin / shutterstock)



PILLAR ONE

GLOBAL INFORMATION ON SUSTAINABILITY

The year 2020 was defined by the pandemic, which underscores the close link between human and planetary health. An estimated 60 percent of all known human infectious diseases are zoonotic in nature: transferred from animals to humans. There is evidence to show that pathogens thrive where there are changes in the environment, such as deforestation, and when natural ecosystems are under stress from human activity and climate change. There is a growing understanding that to build back greener and ensure sustainable growth, countries must measure and value Natural Capital and Ecosystem Services, as a foundation from which to manage them better.

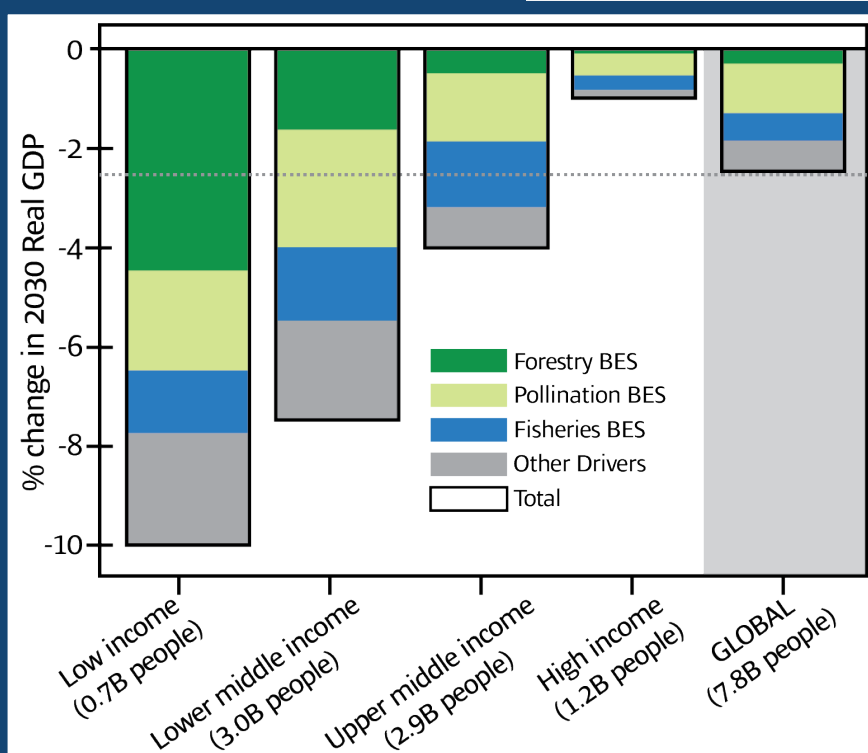
The Dasgupta Review shows in a compelling way how our economies are embedded in Nature. The Review makes a strong case for fully assessing the impact of our interactions with nature and rebalancing our demand with nature's capacity to supply. The Global Program on Sustainability (GPS) team contributed to the Dasgupta Review, shedding light on the impact of collapse in certain ecosystems on countries' economies. This was part of the innovative model linking the economy and the environment developed by the Universities of Purdue and Minnesota (Box 1) for the report on *The Economic Case for Nature*.

Box 1. Contribution to The Economics of Biodiversity: Dasgupta Review

Ecosystems underpin economic systems, providing intermediate and final goods, and regulation services (such as coastal protection, or erosion control). When the provision of these goods and services declines or collapses, there could be major impacts on economic outputs, particularly in countries heavily reliant on Ecosystem Services for income and employment.

Using a linked economy environment model (GTAP-InVEST) and as part of the “Road to Kunming” work, the GPS contributed several insights to the Dasgupta review, in particular assessing the potential combined economic impacts, over the course of a 10-year period (2021 to 2030), of collapses in three ecosystems: tropical forests, wild pollinators and marine fisheries. A collapse is defined as a 90-percent reduction in the flow of Ecosystem Services. Collapses in these ecosystems result in direct impacts on the economic sectors dependent on them; as well as second-order effects along the supply chains and global trade flows, as economies try to adjust to the shocks (for example, intensifying pressure on land use to offset the productivity decline in the timber, agriculture, and fishery sectors). The result is a two percent decline in global 2030 GDP (compared to the no-collapse scenario), but with much larger impacts on poorer countries, including low-income countries (estimated to suffer a plunge of almost 10 percent); and lower-middle-income countries (almost eight percent).

Figure B1: Change in 2030 Real Gross Domestic Product (GDP) under select Ecosystem Collapse Scenarios compared with No-Tipping-Point Scenario, by Income Group



Pillar 1 of GPS provides data and analysis at the global level to measure and value environmental sustainability. The Pillar has two main components. The first focuses on *measuring sustainability* through the production of cutting-edge data and analytical products like the “Road to Kunming” work (see below) and *The Changing Wealth of Nations*. The second component, on *mainstreaming sustainability*, uses tools and methods such as the data platform, guidance notes, or training sessions, to increase

the uptake of Natural Capital within decision-making.

This chapter provides a summary of progress made during the reporting period on the different strands of data and analysis work carried out under Pillar 1, including activities already completed (such as Mobilizing Finance for Nature); and work still being completed, to be summarized in its final form as part of the next reporting cycle (such as *The Changing Wealth of Nations*).

Component 1: Measuring Sustainability

ROAD TO KUNMING

The fifteenth Conference of the Parties (COP-15) to the Convention on Biological Diversity in Kunming, China, offers a unique chance to reverse the global decline of biodiversity and the loss of Ecosystem Services. At this landmark COP, governments will agree a new Global Biodiversity Framework to replace the Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets. GPS has been supporting the development of

the Framework through “The Road to Kunming: Devising the World Bank’s Contribution to Build a Post-2020 Global Biodiversity Framework” initiative. Now completed, the initiative contributed to the global policy dialogue while complementing the WBG’s rich country-level operational engagement on biodiversity and Ecosystem Services. knowledge products disseminated (Box 2) under the Road to Kunming workstream include the following:

MOBILIZING PRIVATE FINANCE FOR NATURE

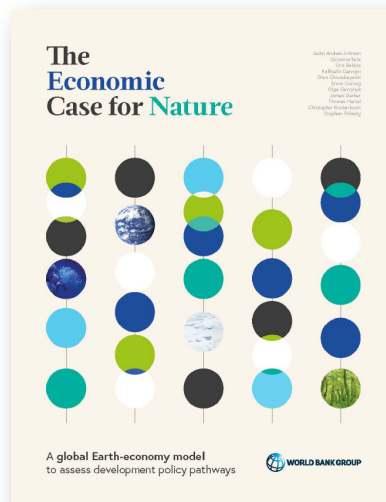
This World Bank Group paper, released in September 2020, looks at the current state of play with regard to private finance in support of biodiversity and Ecosystem Services. The report argues that the financial sector has a critical role to play in addressing the global nature crisis, and that governments and regulators hold the key to harnessing the power of the financial sector to mobilize private finance at scale to protect nature. The report highlights a set of “Big 5” ideas for actions to better integrate

nature into private sector decisions, recognizing the risks of diminishing biodiversity and the loss of Ecosystem Services, while embracing opportunities to conserve and harness them sustainably. These include environmental fiscal reform, better data provision and improved disclosure through the Task Force on Nature-related Financial Disclosures, as well as establishment of a “Nature Action 100” initiative, and provision of catalytic capital.

THE ECONOMIC CASE FOR NATURE: A GLOBAL EARTH-ECONOMY MODEL TO ASSESS DEVELOPMENT POLICY PATHWAYS

Economies are embedded in nature and our ways to study the economy should recognize this explicitly. Further developing the approach used to contribute to the Dasgupta Review (Box 1), this World Bank report, published in July 2021, presents a pioneering global modeling framework that integrates economic and Ecosystem Services data, simulating the interaction between nature and the global economy to 2030, and analyzing policies that can at the same time reduce ecosystem degradation and improve economic

outcomes. The policies analyzed include decoupling of agricultural support to farmers, implementation of national and global forest carbon payment schemes, and investment in research and development for agriculture. The report also evaluates the opportunity costs of achieving the “30x30” goal (30 percent of the planet protected by 2030)—one of the proposed goals of the draft Post-2020 Global Biodiversity Framework—showing that it is within reach at a moderate economic cost.



The launch of the reports included in the “Road to Kunming” series was accompanied by a comprehensive social media plan in collaboration with several of our partners, such as the Convention on Biological Diversity (CBD), International Union for Conservation of Nature and Natural Resources (IUCN), and Brookings. GPS supported a detailed outreach and dissemination plan for all the reports. On the World Bank website, 14 new pages were created, providing features, videos, and infographics capturing the main messages of the report. In the first weeks of the launch, the four reports were downloaded 20,000 times and there were 45,000 page views. A social media strategy ensured that the report links were retweeted 130 times by our partners such as the CBD, WWF, and IUCN. For example, The Economic Case for Nature launch included a slideshow, and a video on Youtube communities. There were nearly 950 ‘likes’ on the World Bank’s Instagram page with a slideshow highlighting the report’s key messages. Working with partners was key to a successful launch. Several partners helped to spread the word through social media as well as by posting the links to the report, ensuring reach to key audiences. Visually appealing content in the form of videos and infographics helped to make the content more engaging.

Box 2. Outreach and dissemination of Road to Kunming reports

Figure B2.1 (above): Report covers from the Road to Kunming series

Figure B.2.2 (below): twitter promotion for Unlocking Nature Smart Development (left) and The Economic Case for Nature (right)



UNLOCKING NATURE-SMART DEVELOPMENT: AN APPROACH PAPER ON BIODIVERSITY AND ECOSYSTEM SERVICES

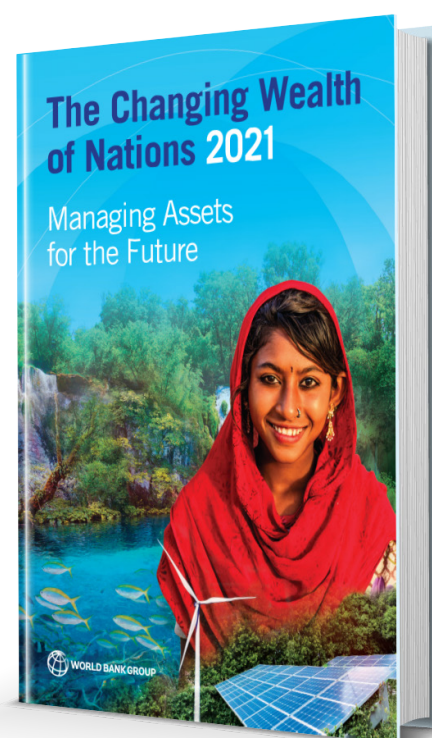
This World Bank Group approach paper, to be published in August 2021, outlines, for the benefit of policy makers, the development challenges and opportunities associated with blue and green biodiversity and Ecosystem Services. Building on the analytical insights and the country level work supported by WAVES and GPS, the paper frames the rapid decline of biodiversity and Ecosystem Services as a development issue, both from a risk and an opportunity perspective. It provides

a comprehensive menu of global response areas to guide governments in their efforts to integrate nature into development agendas and address the nature crisis. As nations formulate a set of new global biodiversity targets at a landmark CBD COP-15, the paper also offers insights to guide the design and implementation of the Post-2020 Global Biodiversity Framework and inform the WBG's ongoing support to this agenda.

Far Right: The Changing Wealth of Nations 2021 report cover (World Bank, 2021)

THE CHANGING WEALTH OF NATIONS 2021

The Changing Wealth of Nations (CWON) 2021, be released in the fall of 2021, provides the most comprehensive and accurate database of wealth across a broad portfolio of assets (natural, human and produced capital) calculated for 146 countries for the years 1995 to 2018 in market exchange rates in accordance with rigorous international standards (System of National Accounts – SNA; and System of Environmental-Economic Accounting – SEEA). It also shows how wealth accounting can be applied to complex policy analysis to make more informed decisions while charting the development pathway for a country in uncertain times. The book and several background papers have already informed the dialogues with countries through the report preparation process.



What's new in the latest edition of CWON?

EXPANDED COVERAGE OF NATURAL CAPITAL

This report will expand the coverage of Natural Capital by including components of blue Natural Capital, including marine fisheries and mangroves, in the core wealth accounts for the first time.

The analysis finds that mangroves and marine capture fisheries are an important part of total wealth for some countries; and that blue Natural Capital fell by half from 1995 to 2018, as the value of fisheries collapsed by 83 percent.

This has important implications, because many countries do not fully realize the potential contribution of fisheries to total wealth.

CWON 2021 also advances the rigor of asset valuation for forest Ecosystem Services, timber, agricultural land, and minerals, resulting in improved estimates of countries' Natural Capital. The CWON data provides the foundation for the GPS policy work (planned for 2022) on environmental fiscal reform for improved management of fisheries and other natural resources.

USING PPP INSTEAD OF MARKET EXCHANGE RATES

For the first time, the report assesses the distribution of wealth across countries using purchasing power parities (PPP) instead of market exchange rates.

USING WEALTH ACCOUNTS FOR POLICY

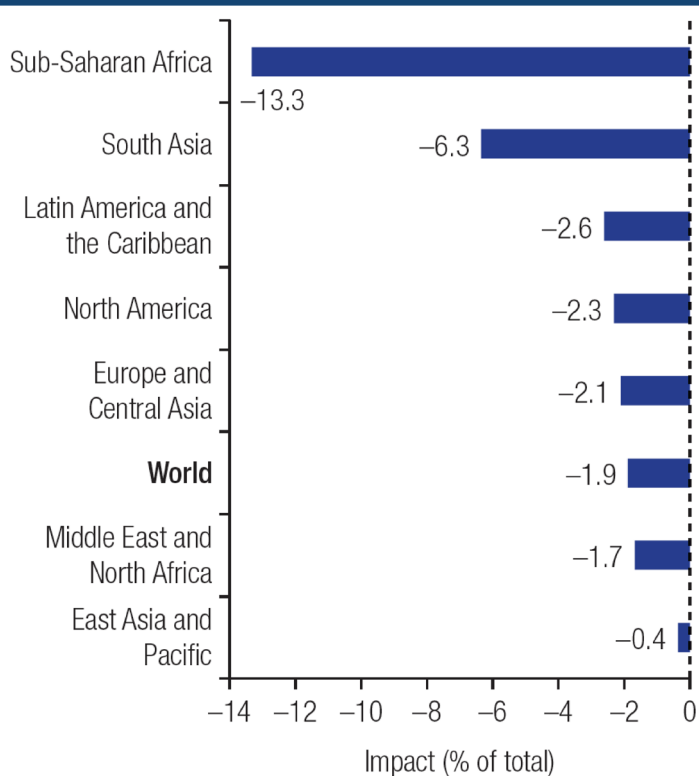
CWON applies the lens of wealth to the analysis of asset portfolio management under risk and uncertainty, including 'green swan' events ([Bolton et al. 2020](#)): these are extremely rare and unexpected shocks (but with potentially extreme or wide-ranging impacts), linked to looming environmental crises, such as climate change, and biodiversity loss. They include virtually unforeseen and contingent catastrophic events, such as the pandemic, caused by zoonosis, which is often driven by human encroachment in natural areas, and which is causing a considerable decline in human capital, especially in low-income countries (Box 3).

Although the full, long-lasting effects of the pandemic are still unknown, the resulting economic downturn and associated unemployment and loss of earnings have already set back the long-term trajectory of poverty reduction, especially in low-income countries. When the pandemic's downward impact on future wage growth is incorporated into the CWON estimation of human capital, low-income countries experience the largest negative impact, with a loss of 14 percent of total human capital in 2018.

Source: World Bank staff calculations.

Notes: The estimated effect of COVID-19 is only partial and conservative—here the analysis includes the effects of slower wage growth due to the economic shock. The full effects on human capital, including negative impacts on health and education, are not yet fully known, and are not included here.

Figure B3: Impact of COVID-19 on Human Capital by region 2018 (% of total)



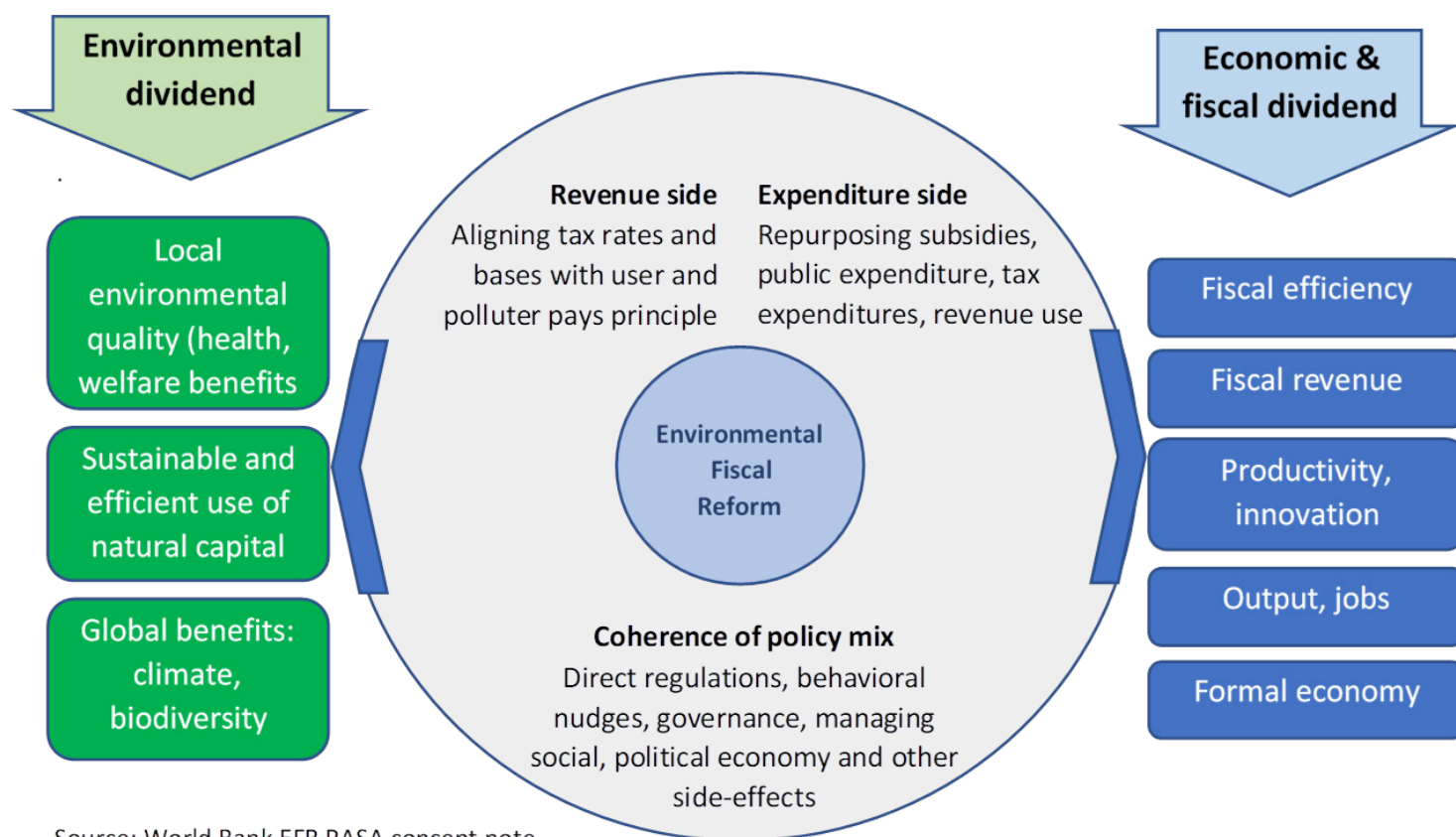
Box 3. Impact of COVID-19 on Human Capital by region 2018 (% of total)

ENVIRONMENTAL FISCAL REFORM

The Analytical Service and Analytics program entitled “*Environmental Fiscal Reforms (EFR): Options, Impacts and Implementation Pathways*” was initiated with GPS support, with a concept note approved in June 2021. The analytical program, jointly led by the environment and macroeconomic teams at the World Bank, will identify implementable options and roadmaps for gradual environmental fiscal reforms in the World Bank Environment, Natural Resources and Blue Economy Global Practice (ENB) business lines (Brown, Green, and Blue) so as to deliver fiscal and economic dividends by investing in Natural Capital to work for sustainable economic development. The aim here will be to address critical methodological questions: (i) How to evaluate EFR options and identify the most promising fiscal reform opportunities in a country context; (ii) How to design roadmaps for incremental policy reforms that could be linked to WBG operations. The main deliverables of this program will be a rolling series

of EFR Policy Reports followed by the Synthesis Report produced at the end of the program. Depending on demand from countries, WBG country teams and international partners, the EFR Policy Reports will be either thematic (based on multi-country experience) or country-specific and will consist of one or all of the following three components: (i) EFR Options/Scoping Studies, (ii) EFR Impact Assessments and (iii) Policy Guidance Notes with Implementation Roadmap. The EFR Policy Reports will be clustered in six thematic areas: (i) air pollution, (ii) plastic pollution, (iii) fisheries, (iv) coastal management, (v) land use and biodiversity, and (vi) circular economy. Climate change will be a cross-cutting issue. Two EFR policy reports are under preparation in Kazakhstan and Serbia respectively, with a view to an integrated approach to air pollution and climate change (with support from GPS under Pillar 2). Discussions are under way with country teams in Nigeria, Malaysia and Indonesia.

Figure 1: Environmental Fiscal Reform and its potential double dividend



Source: World Bank EFR PASA concept note

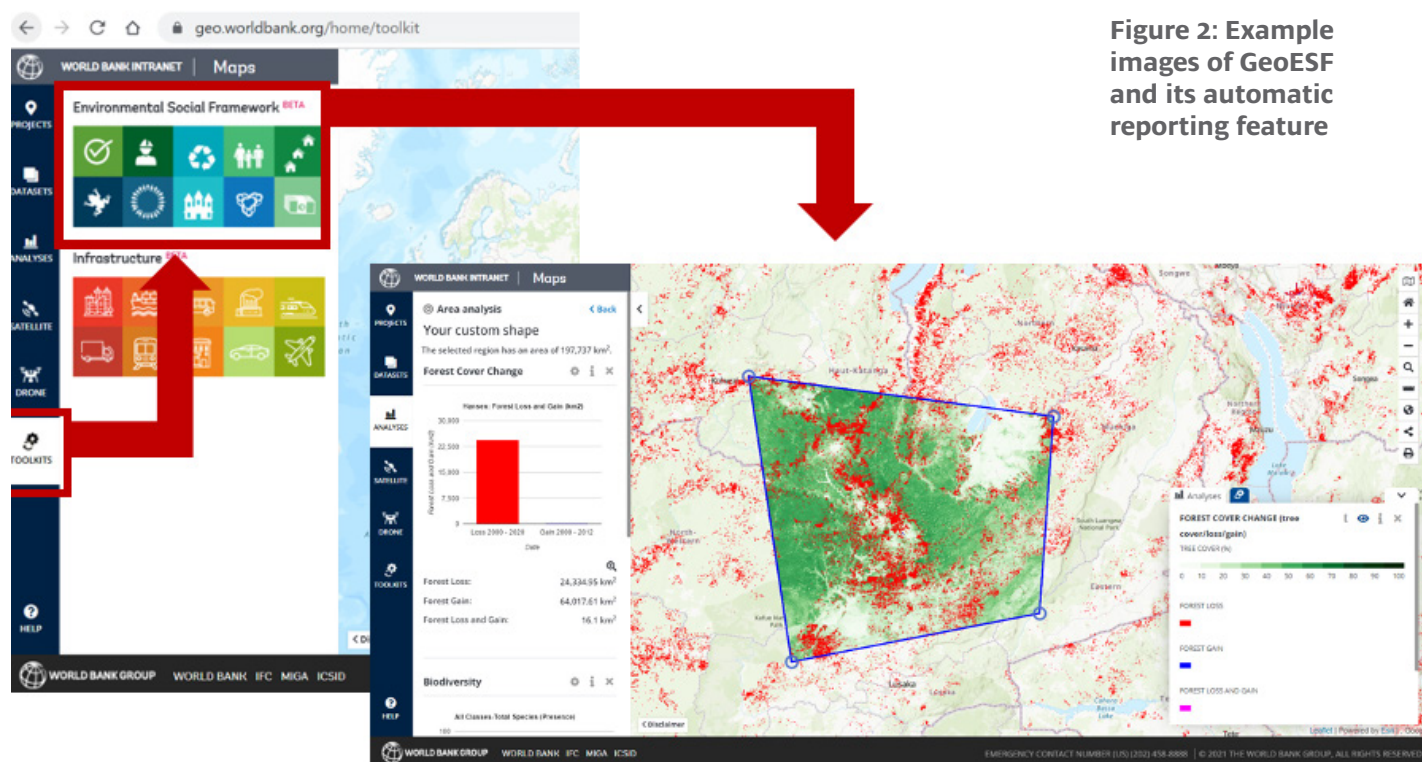
Component 2: Mainstreaming Sustainability

ECOSYSTEM SERVICES ASSESSMENT TOOLKIT (ESAT)

Under the World Bank Environmental and Social Framework (ESF), client countries apply Environmental and Social Standards (ESSs) to World Bank financed projects. These standards are designed to avoid, minimize, reduce or mitigate the adverse environmental and social risks and impacts of projects.

With GPS support, the World Bank developed an Ecosystem Services Assessment Toolkit (ESAT), to help users better understand, visualize and report impacts of Bank-supported projects on Ecosystem Services. Guidelines and a dedicated spatial data analysis tool, GeoESF, were developed. The guidelines include information for ESF specialists on what tools to

use, and when to use them, depending on the needs of different World Bank projects. GeoESF includes an automatic reporting feature to allow users to easily download a report on the potential impacts of a project on Ecosystem Services in a selected area. Such a report (Figure 2) provides useful data and maps to help ESF specialists and client countries in the preparation of environmental and social instruments, such as Environmental and Social Management Plans (ESMPs) and an Environmental and Social Management Framework (ESMF). GeoESF is available for internal World Bank use and could potentially be released externally based on future demand.



GPS DATA PLATFORM

The GPS Knowledge and Data Platform is intended to be a one-stop shop for data and analysis tools produced with GPS support. The platform will make various datasets produced under GPS more accessible to policy makers and a general audience, including Wealth Accounting, Adjusted Net Savings, Hidden Dimensions of Poverty (HDD), and the Little Green Data Book, among others.

Recognizing the potential for synergies with related efforts (such as the ARTificial Intelligence for Environment & Sustainability – ARIES), the World Bank's GPS team has started consultations with partners such as the United Nations Statistical Division (UNSD) and the Basque Center for Climate Change (BC3) for collaboration in the following areas: i) further development of the ARIES technology, particularly as a way to rapidly develop Natural Capital

accounts compliant with the SEEA standard and integration of ARIES in the [UN Global Platform](#); and ii) production of global data on selected types of Ecosystem Services, which would strengthen the wealth accounting in the future editions of The Changing Wealth of Nations; and which could help start the country level policy dialogue and analysis work supported by GPS under Pillar 2 of the program, pending compilation of national data.

The GPS Data Platform will have the potential to host new data that will be produced directly by GPS; or to serve as a gateway to other platforms and initiatives with which GPS collaborates (such as the UN Global Platform). The GPS Data Platform is currently being designed and will become gradually available under the new GPS homepage on the web, which is expected to be launched in 2022.

GREENING THE ECONOMY: COVID RECOVERY AND BEYOND

The COVID pandemic is an unprecedented global blow to human health and economic stability. The recovery from the pandemic affords unique opportunities to “rebuild greener” and steer future development policies in a nature-friendly direction. GPS is well-positioned to make an important contribution in that direction. In particular, GPS can provide data and insights to help rebuild greener and more resilient economies as countries emerge from the crisis. GPS will host the 5th WAVES Policy Forum where the topic ‘Green Recovery and Natural Capital Approaches’ will be discussed. A background paper is being prepared that makes a case for using Natural Capital approaches to inform green recovery policies, using country case studies that have been front-runners in this work.

The GPS team has started designing a modeling platform to assist countries in quantifying, under a single, internally consistent framework, the income, employment, and environmental effects of alternative designs of stimulus programs. A draft concept note was developed, informed by case studies using Input-Output analysis in Fiji, Zambia, and Uganda. Using Input-Output and other modeling techniques, the tool can enable a rapid assessment of the trade-offs between economic and environmental outcomes of any given sectoral composition of a recovery program (see Box 4 for a Latin America example); it can also help evaluate the job and income multipliers of nature-friendly investment such as eco-tourism. A technical report summarizing the findings of the analysis is planned to be completed in 2022.

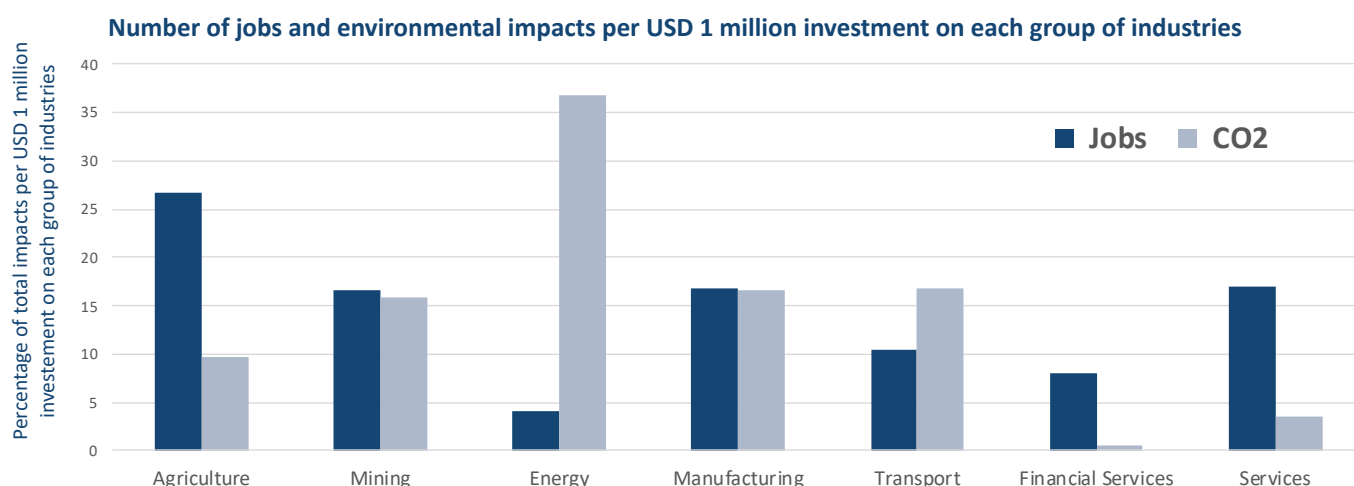
Box 4. Where to Invest \$1 million in short-term recovery without degrading Natural Capital?

Several countries are developing stimulus packages to overcome the socioeconomic impacts of COVID. To build the foundation for a sustainable recovery, there is a need for an evidence-based framework to guide investment decisions to meet the goals of sustainable development.

A recent study was conducted with GPS cofinancing for the Latin American region, with the objective to identify sectors with a potential to maximize the number of jobs created per unit of investment, and at the same time steer economies toward an environmentally sustainable course. A Natural Capital accounting and modeling framework was used to provide quantitative evidence for decision-making. The framework draws on economy-wide input-output analysis and uses publicly available databases.

The results show the direct and indirect effects on jobs and the environment of investing \$1 million in each sector of the economy (see Figure B.4.1 above, where seven bars in any color add up to 100%). The agricultural sector provides opportunities to create the most jobs, 2.7 jobs for every 10 of the jobs generated by the combined \$7 million investment followed by manufacturing and services (1.7 jobs for every 10). The services sector shows relatively low impacts on the environment, while mining and energy production substantially increase emissions of CO₂ and GHG. The aggregated results shown in the figure illustrate how the trade-offs between job creation and environmental impacts can be understood in a more rigorous way.

Figure B4: Economic and environmental impacts of investment



TRAINING ON LANDSCAPE APPROACHES AND ECOSYSTEM SERVICE MODELING

Watershed or landscape-scale approaches to targeting investments have been recognized as a way of achieving a balance among multiple development objectives in several sectors, including infrastructure and agriculture. The scaled-up approach helps provide a better understanding of trade-offs and complementarities across development and natural resource management.

Several tools like InVEST or ARIES for SEEA are currently available and can provide information on the location and magnitude of Ecosystem Services—including water flows, erosion and sediment retention, water quality regulation, carbon retention, and pollination among others. At the same time, there are gaps in the capacity of developing countries (including World Bank borrowers) to use such tools to inform project design, particularly in the prefeasibility, concept, and appraisal stages, where such analyses have the greatest potential to inform project design.

Recognizing such critical gaps, GPS in collaboration with PROGREEN is

currently designing a series of training sessions on watershed and landscape-scale approaches and ecosystem service modeling to target investments in infrastructure, agriculture, ecosystem conservation and restoration. With support from a team of expert consultants, this virtual training (to be completed by 2022) will cover the conceptual framework for landscape approaches and ecosystem service valuation, access to global data and modeling resources, and guidance on how to use them for analyses at different scales and for assessing trade-offs.

The training will leverage ongoing efforts by country teams to develop landscape and ecosystem service valuation assessments, including recipients of GPS technical assistance. These countries could provide inputs to the design of the training and benefit from additional resources and guidance. The aim of this task is to build knowledge among technical specialists, government agencies, and Bank staff on how to apply Natural Capital approaches and tools to incorporate landscape planning approaches into project development.

Evidence of coastal erosion in a small fishing village on Vietnam's south-central coast (Duc Huy Nguyen / Shutterstock)



Sunset over tea covered hills near Bwindi and
Queen Elizabeth National Park in Uganda
(Ashim D Silva / Shutterstock)



PILLAR TWO

COUNTRY IMPLEMENTATION

Through the Core Implementing Country (CICs) window, the GPS/WAVES program delivers in-depth assistance over 2–3 years to developing countries to:

- a) acquire, maintain and update data and information on Natural Capital and the values of Ecosystem Services both in physical and monetary terms; and
- b) use such data in the design and implementation of development policies, programs and projects, including those cofinanced by the World Bank.

This section of the report summarizes progress made in the CICs that had joined the WAVES Plus program in earlier years; as well as the approach being followed to select additional CICs to be supported by GPS.



MOROCCO

The importance of the agricultural sector to the national economy, food security, and livelihood of the population is widely recognized in the macroeconomic policy of Morocco, given that the sector accounts for 12–15 percent of the country's GDP, 23 percent of exports, and 40 percent of jobs nationwide, supporting the employment of 85 percent of the rural population and four million people in total (World Bank data, 2018). However, less well-recognized, or less integrated in national economic planning, is the fact that the primary production in this sector—cropping, animal husbandry, fishing, and fish farming—critically relies on renewable natural resources: notably land, freshwater, and wild fish stocks.

Women working in agricultural fields in the Dades Valley in Morocco (Delbo Andrea / Shutterstock)

ACCOUNTS DEVELOPED

Agriculture and Fisheries accounts:

Work supported under WAVES Plus focused on accounts for crop, livestock, and fish products. Physical flow accounts that document production, consumption and trade were summarized in Supply-Use Tables (SUTs) and covered both primary production and processing of raw products for all three sets of agricultural commodities. In the case of fish production, both capture fisheries and aquaculture were represented. Monetary flow accounts were also produced for primary and secondary crop products and primary fish products. The analysis included detailed recommendations for improving and expanding the initial set of accounts, in terms of flow accounts, disaggregation, and asset or stock accounts.

POLICY IMPACTS

The monetary flow data from the agriculture and fisheries accounts were used in a macroeconomic modeling exercise using SDGSIM—a Computable General Equilibrium (CGE) model designed for country-level analysis of medium- and long-run development policies with a focus on the SDG agenda. The model produces forward-looking estimates of changes in the policy variables of greatest relevance to setting strategic objectives. The modeling work under WAVES Plus represented a proof of concept, demonstrating the policy relevance of the accounts. Accounts and modeling for agriculture are being taken forward by the World

Bank’s Agriculture and Food Global Practice in their technical assistance support to the Green Generation Plan 2030—the agriculture sector’s main strategic plan. For fisheries accounts, the team in the Environment, Natural Resource, and Blue Economy Global Practice will provide follow-up support, under the GPS TTA window, to accounts and modeling work for fisheries. The focus will be to deliver key analytical inputs to the development of the Halieutis Plan 2030—the country’s main fisheries sector strategy, as part of the coordinated effort to support the design of new interventions for the Blue Economy (Box 5).

Box 5. Morocco: Integrating NCA in the Blue Economy

The fisheries account developed under WAVES Plus provides the basis, with further expansions, to integrate the NCA work in the World Bank program on the Blue Economy. Morocco is pursuing a new model of development which has shifted from a capital-intensive approach to one promoting growth in a sustainable way. For this purpose, the WB developed a platform to support the Blue Economy in the Middle East and North Africa (MNA Blue).

In Morocco, the Bank embarked on a set of analytics and technical assistance to promote a sustainable Blue Economy. In line with these developments, the WB and the Ministry of Economy and Finance are discussing the scope of the proposed National Program for the Sustainable Development of Coastal Areas. The project would aim to support interinstitutional coordination to deliver integrated spatial solutions and would invest in improved fisheries and aquaculture management, new livelihood and economic opportunities for coastal areas, and build institutional, technical and human capacities in Blue Economy related sectors.

INSTITUTIONALIZATION

Morocco has taken an important first step in developing Natural Capital accounts, setting the stage for their future use. Stakeholders from key ministries and agencies attended several capacity-building programs, and the NCA work is expected to continue

for agriculture and fisheries. The main statistical agency (HCP) has also expressed an interest in undertaking water accounts in the future. These represent an indication of the government’s interest and intention to institutionalize the NCA work.



ZAMBIA

In 2020 Zambia completed three Natural Capital accounts (Forest, Water and Land accounts). These were released in the presence of three Ministers and the World Bank Country Manager for Zambia. During the launch event, the government's commitment to sustainable management of Natural Capital was reaffirmed:

Aerial view of the
Zambezi river
(Anton Ivanov /
Shutterstock)

"We are releasing three accounts as an evidence of our commitment in developing Natural Capital accounting as a tool to guide investment for more diversified and sustainable growth that preserves and enhances the natural resource base that so many poor communities depend on."

Alexander Chiteme, former Minister for National Development Planning, Zambia.

The accounts completed are being used to inform the Eighth National Development Plan; and funding for further work on accounts has been included in the 2021 National Budget. A modeling team will use the accounts accordingly to build scenarios that will inform policy decisions on the use of natural resources.

ACCOUNTS DEVELOPED

Land Accounts:

The first edition of the Land Accounts sought to identify and understand land cover changes in Zambia over the period 2010–2015. This is vital for spatial planning at both national and provincial levels. Results indicate that there has been a reduction in forest cover and wetlands in Zambia. Deforestation was driven by expansion of built and cropland areas, while the reduction of wetlands could be attributed to the change in soil moisture due to variation in rainfall. The findings have the potential to inform the government's agenda on enhancing land productivity, agricultural expansion, and shed light on urban and rural development planning.

Forest Accounts:

The accounts show how the forest area is changing over time, identify the main activities contributing to this change, and value selected forest products to highlight their potential contribution to the Zambian economy.

Water Accounts:

The accounts highlight the abstractions by sectors and revenue generated over the 2010–2016 period. Hydropower generation is the largest—albeit non-consumptive—user of water, followed by agriculture and then households. Water withdrawn from rivers and aquifers by water utility companies account for a relatively minor share of withdrawals.

Policy and Modeling, Energy, Tourism, and Mining Accounts:

For each of these accounts, the government formed Technical Working Groups. Data collection has commenced to create Tourism and Energy accounts. The environmental-economic model is progressing. As discussed in the section below on Targeted Technical Assistance, Zambia has been selected to receive follow-on assistance from GPS under the TTA window. Activities being supported include the finalization and publication of the Tourism Account.

POLICY IMPACTS

The GPS/WAVES Technical Reports are being used to inform all aspects of the Eighth National Development Plan. Other impacts include:

- The Forest Account Technical Report is feeding into the development of the Apiary National Strategy (involving honey and wax) under the Ministry of Lands and Natural Resources; and
- Following the development of the first accounts with support from WAVES, Zambia included in the 2021 National Budget a budget line for Forest and Tourism Accounts. The purpose is to inform land use planning, in particular for regions where nature-based tourism is still not developed.

INSTITUTIONALIZATION

The case of Zambia shows the importance of having a coordinating ministry to champion the NCA agenda, including its integration in the workings of the government, creating momentum for expanding the scope of NCA data and analysis efforts. The Ministry of National Development Planning has played a coordinating role in the work supported by GPS/WAVES, ensuring full support from all of the government of Zambia, and facilitating consensus building in the cabinet on the importance of

continuing the work and the definition of next steps. In particular, the government decided to create a budget line in the national budget for the NCA program, which will support the development of Energy and Mining Accounts; and identified further priority areas for which further technical assistance from GPS has been sought. These include expansion of the work on Tourism Accounts; and development of an environmental-economic model for Zambia to be used by the Ministry of Finance.



UGANDA

As the Government of Uganda moves toward its vision of resource-led industrialization, it is developing a set of Natural Capital accounts for the country and integrating wealth accounting into its regular macroeconomic data. In November 2019 the first two of these accounts were launched, on land and water respectively, jointly by the Uganda Bureau of Statistics (UBOS), Ministry of Water and Environment, and Ministry of Lands, Housing and Urban Development. The Wood Asset and Forest Resources Accounts was launched in November 2020. The government is expected to continue working on accounts, guided by the *National Plan for Advancing Environmental Economic Accounting in Uganda* launched by UBOS. Policy briefs were prepared to tease out the policy implications of land and forest accounts. A number of issue papers have been prepared to better disseminate the findings of the work.

Agricultural terraces and forest in the Ugandan hills (MehmetO / Shutterstock)

ACCOUNTS COMPLETED

Land Accounts:

The land accounts show land use and cover associated with human activity such as agriculture, settlement, and industry—alongside natural processes—from 1990 to 2015. The accounts found steady

expansion of land used for subsistence agriculture, while forest cover declined (both woodlands and natural forests). The accounts were prepared at the national level, zonal level, and at the district level.

Wood Asset and Forest Resources Accounts:

This is the first comprehensive inventory of Uganda's wood assets and forest resources. It includes physical and monetary asset accounts of wood and other selected forestry resources (based on the data available) from 1990 up to 2015. The accounts show that Uganda could run out of forests outside of gazetted protected areas by 2025, if the current rate of depletion, driven by population growth, urbanization and poor management of natural resources, is not held in check. Demand for wood is projected to more than double between 2015 and 2040.

POLICY ANALYSIS CONDUCTED

Adjusted macroeconomic indicators

were calculated using the World Bank's adjusted net national income (ANNI) and the adjusted net savings (ANS), showing how Uganda was depleting Natural Capital assets. The report (2019) made a number of recommendations relevant to the Third National Development Plan 2020/21–2024/25 (NDP III), including that adjusted macroeconomic indicators should be compiled annually, based on locally-sourced data as far as possible, and used for monitoring the sustainability of economic growth.

The forest accounts showed that Uganda had a deficit in sustainable wood supply every year between 1990 and 2015, with the exception of 2000. To assess future development, a **scenario analysis** was conducted, suggesting a strong likelihood that all the wood supply outside protected areas may be depleted by 2035. Under that scenario, additional harvest will then deplete the wood stock inside protected areas. To look into possible actions to improve the woodfuel market, an **assessment of the woodfuel sector** was carried out; this showed the scale and value of that

Toward Ecosystem Accounts:

The report highlights a path toward ecosystem accounting that will encompass the vital contribution of the various Ecosystem Services provided by forests, wetlands, and other ecosystems. The ecosystem accounts provide quantitative estimates of carbon storage, carbon sequestration, water yield and sediment retention in the eight river basins. The report brings out the point that changes in all these measures are linked to changes in land cover, in particular, the loss of forests or their conversion to farmland.

sector, including its contribution to income and employment. The report identified a number of challenges to the sustainability of the sector, as well as possible policy solutions and practical interventions.

The program also supported a **statistical and economic analysis of Uganda's tourism expenditure, and a motivational survey in 2019** as tourism is one of the most important economic sectors in the country. Statistical analysis focused on comparisons between 2012 and 2019 high season samples. The number of leisure tourists had increased from 21 percent to 25 percent in 2019, forming the largest share of tourists. Analysis based on pre-COVID numbers shows that if every tourist stays one night longer in Uganda or if the number of leisure tourists increases by 100,000, tourism exports and value added can increase by 15–20 percent.

The information will be used in designing tourism policies for the country, especially in view of ongoing national planning for the development of tourism when the pandemic crisis has passed.

POLICY IMPACTS

As a testimony to the project's policy significance, the GPS/WAVES team was requested by the government to prepare an issue paper to inform the preparation of NDP III, which was finalized in 2020. The main objective of the paper was to mainstream Natural Capital Accounting (NCA) into the development dialogue, starting with NDP III at the national level, and proceeding to sectoral and local planning processes. Since then, the government has requested continued support for NCA, focusing on further work on ecosystem accounts, as well as developing environmental-economic tools for policy analysis. The report on adjusted macro-indicators stated that monitoring of sustainability of economic growth should be based on

the achievement of agreed targets. The following targets were proposed:

- The annual growth rate of Adjusted Net National Income (ANNI) should be at least as high as that of Gross National Income (GNI), to ensure that growth in recorded national income is not derived from the depletion of assets; and
- The rate of Adjusted Net Savings (ANS) should be maintained at a positive level and should increase over time.
- The government subsequently decided to continue to calculate the adjusted macro-indicators on its own to track progress.

INSTITUTIONALIZATION

As a result of the policy work summarized above, NDP III included NCA as one of the strategies to guide investment, development, and management of natural resources. In the next five years, the focus will be on increasing capacity for both individuals and institutions on NCA (especially valuation). In addition, publication of adjusted macro-indicators is now institutionalized within the

Ministry of Finance. Uganda is a core participating member of the Africa NCA Community of Practice (CoP) with a focal point representative from the Ministry of Environment. Uganda shared its NCA journey and experience with other African countries in a webinar entitled *Uganda: Building a Comprehensive Landscape for NCA and Policy Application*.



In 2020 Egypt completed the activities envisaged under the CIC support from the program, as discussed below.

View over Cairo (Leonid Andronov / Shutterstock)

ACCOUNTS DEVELOPED

Air emissions accounts:

Air pollution is one of the most urgent problems facing the government and is one of the top priorities in Egypt's "Vision 2030" Strategy.² The cost of environmental degradation in Egypt from air and water pollution alone was estimated to be equivalent to 2.5 percent of GDP in 2016/17, with air pollution representing 54 percent of the total cost. Pilot air emissions accounts (AEAs) were developed for Egypt to provide an integrated assessment of Greenhouse Gas (GHG) emissions and air pollutants—typically compiled in separate databases. Data from Egypt's IPCC Biennial Update Report were linked with data from the Egyptian Environmental Affairs Agency (EEAA),³ and the Central Agency for Public Mobilization and Statistics (CAPMAS, the national statistical agency) to create a series of synthesized AEAs.

² Ministry of Environment, Egyptian Environmental Affairs Agency. 2018. Biennial Update Report (BUR), Egypt, Fiscal Year 2015/16.

³ EEAA. Emission Inventory for Air Criteria Pollutants & Loads. Fiscal Year 2017/18.



A factory on the banks of the Nile near Cairo (Liz Miller / Shutterstock)

Results reveal that the manufacturing and transport sectors contribute significantly to particulate matter (fine dust) while the manufacturing, and the electricity and transport sectors contribute the most to CO₂.⁴ Agriculture contributes to nearly 38 percent of all methane emissions. Manufacturing and agriculture together represent nearly one-third of gross value added in Egypt.

Policy impacts and institutionalization

In February 2021 a capacity building workshop was held with all stakeholders—including CAPMAS, EEAA, the Ministry of Planning, and Ministry of International Cooperation—to present training on how the accounts were developed and their policy applications. The AEAs will also form the basis of ongoing work with the government of Egypt to create an integrated air emissions database under the World Bank’s Greater Cairo Air Pollution and Climate Change Project.

Waste Accounts

Solid waste burning is currently responsible for up to one-third of Greater Cairo’s pollution from fine particulate matter, a pollutant with directly associated with respiratory illness and premature mortality. Egypt joined the WAVES Partnership in 2019 to develop waste accounts to tackle systematic information issues

in waste management and improved private-sector contracting (that is, public–private partnerships), as well as proposing a new waste categorization method to be used by the waste regulatory authority.

Waste accounts for the Governorates of Port Said and the Red Sea

Pilot waste accounts were developed for the governorates of Port Said and the Red Sea. Waste accounts show masonry waste to be the top contributor to total waste volume in Red Sea Governorate (because of the construction boom in coastal tourism development), whereas mixed waste (residential/commercial, agriculture and animal wastes) is the largest waste fraction in the Governorate of Port Said. Port Said also exports up to 20 percent of waste created from agricultural production to other governorates for use as animal fodder and fertilizer. Recyclables such as metals, plastics, paper and cardboard and glass account for approximately 9–12 percent of total waste flows in both governorates (representing about 40,000 tons annually). This information is important for understanding the economic feasibility of building secondary markets for recyclables and tracking waste volumes for which private operators are contractually paid.

⁴ Ministry of Planning and Economic Development. 2016. Egypt’s Vision 2030. World Bank. 2019. Arab Republic of Egypt: Cost of Environmental Degradation – Air and Water Pollution, Washington, DC. USA.

POLICY IMPACTS

The information generated by the program has proven instrumental in designing facilities for waste sorting and recycling, because it can confirm whether or not minimum thresholds of annual waste flows have been met at the locations designated for the siting of the sorting facilities: such that these would become economical. The amount of waste in aggregate—or the quantities of specific waste materials—are also important indicators of environmental

pressure and can help authorities set service fees, negotiate waste contracts with waste collection operators, and understand the contribution of the waste sector to the economy. The waste accounting framework is being considered as part of the support to the Waste Management Regulatory Authority (WMRA) through the World Bank's Greater Cairo Air Pollution and Climate Change Project.

INSTITUTIONALIZATION

A capacity-building workshop was organized with EEAA and CAPMAS. The WMRA is also considering the waste accounting framework as a standardized approach, because governorates currently use different

methods to track waste. The waste categorization methodology is also part of the management information system support in the Greater Cairo World Bank project mentioned above.

SELECTING NEW CIC COUNTRIES

A Call for Proposals (CfP) for Core Implementing Countries (CICs) under GPS was prepared in 2021, and the process is ongoing to select up to six CICs, as envisaged under the latest workplan. A proposal for Ethiopia has already been evaluated for support in the amount of \$1 million, which has been recommended for funding. The work, to be financed by resources from both the GPS and WAVES Plus Trust Funds, includes building of accounts (water and Ecosystem Services); and use of such information in the development of land use decision-making tools, macroeconomic modeling, and the design of PES schemes (payment for Ecosystem Services).

In addition, preliminary proposals are being reviewed for the following countries—Ghana, Honduras, Indonesia, Nepal, Nigeria, the Philippines, Tunisia, and Turkey—with a view to selection of up to five for funding of up to \$1 million each. As indicated in the workplan, the complete proposals will be assessed using criteria such as: evidence of country commitment; opportunities to leverage GPS results to inform downstream financing from the World Bank or other development partners; demonstration or replication potential; and a country's significance for the global commons (climate change, biodiversity). The selection process is expected to be completed in the fall of 2021.

UPDATE ON TARGETED TECHNICAL ASSISTANCE

The Targeted Technical Assistance (TTA) is a modality of engagement that complements the support provided through the Core Implementing Countries (CICs) window, the original channel of assistance under the WAVES program. TTAs are smaller grants intended to provide “just-in-time” support for specific investment or policy questions that can be answered through work on Natural Capital or Ecosystem Services.

In FY20, eight TTA countries completed their activities: Cambodia, Kyrgyz Republic, Lao People’s Democratic Republic, Madagascar, Myanmar, Nepal, Uzbekistan, Vietnam. A regional activity related to the West Africa Coastal Areas Management (WACA) program showed significant progress (Table 2.). The two main areas of operational work that TTAs inform are forests and landscape management (Cambodia, Kyrgyz Republic, Lao PDR, Madagascar, Nepal, Uzbekistan), and Ecosystem Services in coastal areas (Myanmar, Vietnam, and the WACA program).

TTAs are proving to be a valuable instrument of engagement: by being closely linked to the Bank country programs, they can provide NCA insights to the design and implementation of World Bank operations. This is key, as it can showcase in a tangible way the practical usefulness of NCA work, thereby feeding directly into the design of World Bank projects (as in the case of

Cambodia, Box 6). The TTA work completed during this reporting period has resulted in the provision of evidence and insights on Natural Capital and Ecosystem Services that has informed the design of 10 World Bank operations, worth \$970 million.

In other cases, TTAs can induce governments to continue the work, such that they request follow-on TTA support (as is being considered by countries such as Lao PDR, or Rwanda), or express interest in a more long-term development of accounts, which can be supported through follow-on CIC support.

TTAs can also be a focused way to extend broader work previously supported by the program’s CIC window. In 2019 Indonesia had concluded the WAVES-supported CIC work that yielded accounts for land cover and land extent, ecosystem accounts for peatlands, and data and modeling support for the country’s Low-Carbon Development Initiative (LCDI). Building on these results, GPS has supported deeper-diver policy-oriented work in two strategic areas, namely valuation and management of coastal resources (including mangroves); and, in close collaboration with the Peatland Restoration Agency (BRG), economic analysis of policy options for improved peatlands conservation and restoration. The technical work was completed in June 2021, with dissemination activities scheduled for the fall of 2021.

Box 6. Cambodia: Informing a World Bank project on Sustainable Landscape and Ecotourism via GPS TTA support

Cambodia's rich biodiversity provides critical Ecosystem Services—such as water purification, food provisioning, erosion control and climate regulation—that underpin the country's economy. Key economic sectors such as agriculture and tourism are dependent on these Ecosystem Services. In addition, the country's forests help to sustain the hydropower on which the garment industry and other economic sectors depend.

The GPS-supported report on 'Valuing Ecosystem Services Provided by Forests in Pursat Basin' provides an analysis and methodology to estimate the monetary value of forest resources in the Pursat River Basin in the Cardamom Mountains of western Cambodia. The analysis quantified monetary benefits of forest Ecosystem Services for water, agriculture and hydropower, ecotourism and carbon storage. This analysis helped inform the \$51 million Sustainable Landscape and Ecotourism Project to improve protected areas management, and to promote ecotourism opportunities and non-timber forest product value chains in the Cardamom Mountains-Tonle Sap landscape.

Key results include:

- Economic benefits from intact forests are five times higher than the gains from cutting them down for small-scale agriculture and charcoal production;
- Maintenance costs of forests are one-twentieth of the benefits provided by forests to other economic sectors; and
- Opportunities for receiving revenues from private and international sources for forest maintenance could mean zero costs for the government in the long run.



This study gives a glimpse of what Cambodia's forests are worth in monetary terms when left intact. By understanding this value, there is a strong incentive to invest resources into the sustainable management of these forest ecosystems. Their maintenance will not only help to further strengthen the Cambodian economy but will also assist in the country's economic recovery from COVID. This in turn will help to safeguard the country's Natural Capital and ensure a sustainable and prosperous future for Cambodia and its people.

Dense tropical forest in eastern Cambodia
(Ralf Siemienieć / Shutterstock)

Table 2. Update on TTA tasks approved in FY19 and completed in FY20

Country	Purpose of the Accounts and other data related work	Potential Impact on Policy	World Bank project informed/ influenced	Progress
Cambodia	<p>Strengthen the business case for enhancing the use and management of natural resources in the Cardamom Mountains in Cambodia.</p> <p>Strengthen the capacity of the government to use ecosystem accounting approaches in landscape planning and decision-making.</p>	<p>Protected area financing.</p> <p>Designing payments for environmental services.</p>	Cambodia Sustainable Landscape and Ecotourism Project with GEF additional financing adding up to \$54 million.	<p>The technical report of the project can be accessed here.</p> <p>A blog was developed to disseminate the report: it can be accessed here.</p>
Uzbekistan	Valuation of soil retention Ecosystem Services (and corresponding mechanisms that prevent air pollution from dust) provided by plantation of saxaul forest in Aral Sea area. Such benefits would be included in ROAM analysis (Restoration Opportunities Assessment Methodology) in pursuit of the goals of Astana Resolution on restoration of deforested and degraded lands.	Results informed ongoing legal and regulatory reform in Uzbekistan (Environmental Code, Forest Strategy, GHG regulation) providing quantitative measurements and thresholds for financing afforestation activity in the country.	<p>North Aral Sea project CAMP4ASB.</p> <p>Preparation of the Uzbekistan Resilient Landscapes Restoration project (P174135).</p> <p>Planning of the Resilience Deep Dive paper for the FY22 Country Environmental Analysis (CEA) in Uzbekistan.</p>	<p>A report has been prepared that models benefits of rehabilitation scenarios, revealing that erosion could be reduced to around one quarter through planting of shrubs and trees, with potentially large effects of annual and perennial grasses on reducing wind erosion. This study is used as justification for a resilient landscape restoration project by proving that it is economically viable (Benefit–Cost Ratio is on average 1.49 for the present value of benefits and costs of the different interventions). Valuation of Ecosystem Services, including local and global benefits, helped to mainstream climate into a broader development context.</p> <p>The Value of Landscape Restoration in Uzbekistan to Reduce Sand and Dust Storms from the Aral Seabed provides an economic analysis of the benefits of afforestation of the former Aral Seabed.</p>

Country	Purpose of the Accounts and other data related work	Potential Impact on Policy	World Bank project informed/ influenced	Progress
Lao PDR	<p>Estimate Natural Capital Value (NCV) at the national level.</p> <p>Produce the first Landscape Valuation of selected assets in a selected landscape, and estimate the economic value of these assets and Ecosystem Services in Khammouane Province.</p>	<p>Input to National Green Growth Strategy.</p> <p>Input to design new investment project financing for Landscapes and Livelihoods.</p>	<p>The GPS work has informed the Lao Landscapes and Livelihoods (LLL) project (P170559) (\$57.3 million).</p> <p>The project has a programmatic approach to landscape development and a dedicated project activity on Natural Capital accounting led by the Lao Statistics Bureau (LSB), which chairs the NC working group established by the TTA.</p>	<p>A multisectoral technical working group comprising government sectoral representatives has been established, led by the Lao Statistics Bureau.</p> <p>The final report was published in June 2020.</p>
West Africa Coastal Areas Management Program (WACA)	<p>Valuation of externalities related to pollution of air, inland and coastal water, and deforestation (for the analytical work on the cost of environmental degradation in coastal cities in Nigeria).</p> <p>Valuation of Ecosystem Services (particularly the role of mangroves in reducing the risk of coastal flooding in Ghana and Guinea).</p>	<p>The analysis will inform the development of a Multi-Sector Investment Plan in Nigeria and Ghana, allowing countries to design policies and investments that take the value of Ecosystem Services and risk mitigation into account.</p> <p>The analytical work supports the engagement of client countries, academic institutions, regional agencies, and partners in the economics of coastal environmental degradation.</p>	<p>The work supports the knowledge pillar of WACA and the WACA scale-up platform, which aims to facilitate access to knowledge and accelerate access to finance for coastal resilience.</p> <p>The results of the studies are informing Bank operations, including the Guinea Natural Resources, Mining and Environment Project (P168613) and the West Africa Coastal Areas Resilience Investment Project II (P175525).</p>	<p>Analytical work for the cost of environmental degradation in coastal cities in Nigeria was finalized and published. Link: https://openknowledge.worldbank.org/handle/10986/34758</p> <p>Role of mangroves in protection against coastal flooding has started in Ghana and Guinea. Two coastal flood hotspots were selected per country and agreed by the governments. Currently, hydrodynamic modeling of passage of surges is being developed by a firm (Deltares).</p> <p>Following publication of the initial results for Nigeria (March 2019); the Bank team is using the findings to inform dialogue with the government to further expand work on the economic implication of coastal degradation.</p>

Table continued on next page

Table 2. Continued

Country	Purpose of the Accounts and other data related work	Potential Impact on Policy	World Bank project informed/ influenced	Progress
Madagascar	Develop a platform for assessing/ modeling selected Ecosystem Services (e.g., food provisioning, erosion control, carbon storage), as a key input to reorienting land use and land use change processes.	Ensure policies related to land use planning are more evidence-based or invest in areas where impacts on investments are likely to be maximized, such as national reforestation policy.	<p>The \$108 million Sustainable agriculture landscape management project (PADAP), which consists of an integrated approach for managing five landscapes in Madagascar.</p> <p>The \$50 million REDD+ Emissions Reduction Program in the North Eastern part of the country.</p>	<p>The team has been working on two parallel, related models: a) a regional model (LANDSIM-R) that models the hydrology and sedimentation dynamics of a watershed under different scenarios; b) a national model (LANDSIM-P) that models household dynamics, land degradation and resulting land use change under different scenarios.</p> <p>LANDSIM-R has been fully delivered to the client for its use under the PADAP project. The government has taken the decision that LANDSIM-R will be used as a tool for informing the ongoing design of the Landscape Management Plans to be developed in the five PADAP landscapes.</p> <p>LANDSIM-P has been almost finalized and it will be tested in two real case studies dealing with agricultural value chains and reducing emissions from deforestation.</p>
Vietnam	Valuation of coastal assets to determine potential for revenue generation and assess contribution to wealth.	<p>Inform ongoing discussions with government on ways to enhance coastal resilience and how to finance investments.</p> <p>Informing the drafting of the decree associated with the revised Law on Environmental Protection that is focused on valuation of natural assets and Ecosystem Services.</p>	<p>Forest Sector Modernization and Coastal Resilience Enhancement project (\$150 million) to improve coastal forest management.</p> <p>The valuation methodology that has been developed will be made available to the country team that oversees valuation of the coastal assets.</p>	<p>The report was finalized and reviewed internally in the Bank.</p> <p>The guidance material is informing the discussions and preparations that are unfolding on the decree for valuation of natural assets and Ecosystem Services.</p>

Country	Purpose of the Accounts and other data related work	Potential Impact on Policy	World Bank project informed/ influenced	Progress
Kyrgyz Republic	<p>Develop forest accounts as mandated in the recently-approved Forest Development Concept to 2040.</p> <p>Develop methodology for tourism accounts for Issyk Kul oblast (80 percent of tourism), and apply it to a World Bank lending program.</p>	Accounts will identify indicators for National Forest Inventory (NFI) update and the Forest Management Information System (FMIS) under the Integrated Forest Ecosystem Management Project.	Third Phase of the Central Asia Regional Links Program (CARs-3).	<p>Forest and tourism accounts were discussed at virtual workshops organized with the National Statistics Committee and State Agency for Environmental Protection and Forestry.</p> <p>The reports provide clear recommendations for improving data collection by the National Statistics Committee, State Agency of Environmental Protection and Forestry, and Department of Tourism to better account for the respective sector contribution to the economy and inform appropriate decision-making processes.</p> <p>The Tourism accounts report can be accessed here.</p> <p>The Forest accounts report can be accessed here.</p>
Myanmar	<p>Measurement and valuation of Ecosystem Services from mangroves and assessment of benefits from mangroves conservation to inform coastal planning and effectiveness of community forest initiatives.</p> <p>Draw up a roadmap for further development of NCA in Myanmar.</p>	Make the case for targeted investments in restoration of mangrove and coastal forests as part of an integrated coastal resilience program.	<p>Myanmar Coastal and Delta Resilience Program.</p> <p>Strategic Country Diagnostic for Myanmar.</p> <p>Myanmar Forest Restoration, Development and Investment Project.</p>	<p>The report on Investment Analysis for Mangroves in the Ayeyarwady Region can be accessed here.</p> <p>Two Insight Briefs for key value mangrove value chains:</p> <p>Insight Brief: Mangrove Aquaculture-Polyculture Products in the Ayeyarwady Region</p> <p>Insight Brief Nipa Palm Products in the Ayeyarwady Region</p>

NEW TARGETED TECHNICAL ASSISTANCE GRANTS

A call for Proposals (CfP) for additional TTA support was issued in the fall of 2020, focusing on four themes: Policy applications of Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES); Greening of COVID Recovery programs; Environmental Fiscal Reform; and support to National Biodiversity Strategies and Action Plans (NBSAPs). Two windows were established:

- **Just-in-time grants (JIT):** These grants are aimed at providing inputs in an agile way to operational work, and particularly to Development Policy Operations (DPOs). Funding is in the range of \$50,000 to \$75,000, to be disbursed indicatively over a period of 6 to 12 months.
- **Medium-size grants (MSP):** These grants (for medium-sized projects) provide more substantial support for in-depth analytical work. Funding will be up to US\$250,000, and disbursed indicatively over a period of 18 months.

Proposals were systematically reviewed by the GPS Management Team against several criteria, including technical soundness, policy relevance, and likelihood of impacts of the work on downstream financing. Based on the evaluation, 15 proposals were approved (Figure 3) and commenced their activities toward the end of FY21.

As seen in Figure 3, the bulk of the resources is allocated to MSP grants (75%, across 6 grants). In terms of regional distribution, sub-Saharan Africa receives the largest portion of the grant resources (43%), followed by Eastern Europe and Central Asia (20%), and East Asia and Pacific (15%). The two topics addressed by the majority of the proposals were Policy applications of NCA/VES, and Greening of COVID Recovery programs. A large share of TTA is expected to inform the design or implementation of development policies, programs and projects.

Figure 3. Summary data on approved TTA Grants

The letters in the table refer to the contributions that each task will make to the achievement of the following GPS Impact indicators:

A: Compiling publicly accessible data on Natural Capital and Ecosystem Services.

B: Use data on Natural Capital and Ecosystem Services in the design and implementation of development policies, programs and projects, including those cofinanced by the World Bank.

C: Policy documents (at the national or subnational level), such as development plans, sectoral policies and strategies, or bills, informed by GPS-supported activities.

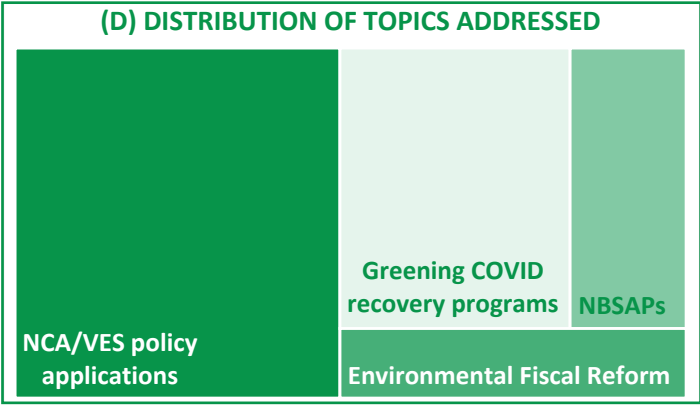
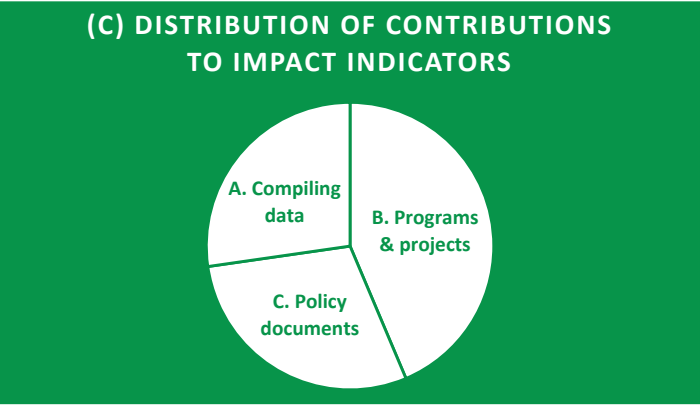
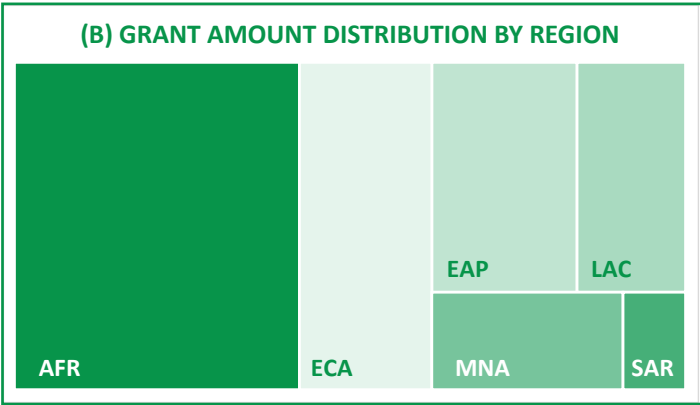
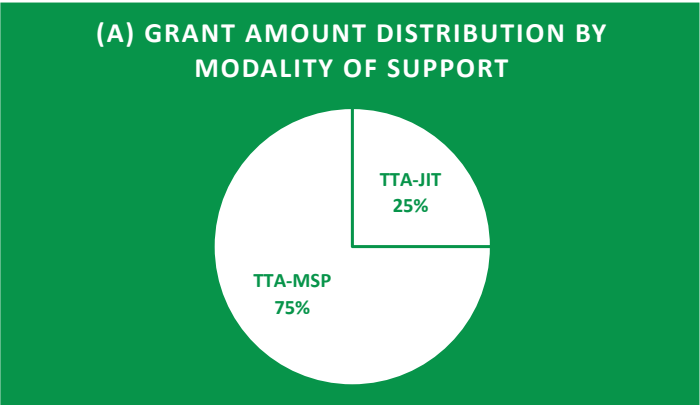


Table 3: New TTA tasks approved in FY21

Country	Activity	Expected Impacts <small>(groups A, B, & C defined at foot of table)</small>
Bolivia	Green Recovery in the Chiquitania	B: The study will develop estimates of the value of environmental services that will be used to: (i) support stakeholder consultations and design of the World Bank project Green Recovery in the Chiquitania project; and (ii) inform the economic and financial assessment of the proposed operation.
Cambodia	Enhancing Natural Resources Management in Cambodia	To be confirmed
Chad	Valuing the cost of environmental degradation in Chad	A: The grant will help fill key gaps in economic valuation, to be included in the forthcoming NBSAP. C: The grant will inform (1) Country Partnership Framework; (2) National Development Plan 2022–2026; and (3) Policy recommendations derived from the Country Economic Analysis.
Ghana	Vulnerability Assessment—impacts of climate change on labor productivity	B: The data will be used for Ghana Country Climate and Development Report (CCDR) currently under preparation.
Kazakhstan	Support in financing and delivering the circular economy in Almaty	B: The data will be used to inform World Bank project Resilient and Sustainable Economy Recovery.
Kyrgyz Republic	Kyrgyz Republic: Policy Applications of NCA/VES	B: The data will inform World Bank project Integrated Forest Ecosystem Management Project as well as the new investment operation that will support landscape restoration practices by rural communities and promote collaboration by Central Asia countries on transboundary landscape restoration.
Lao PDR	Landscape Valuation for Decision Support in Lao PDR	A: The grant will support landscape valuation. B: The data will inform World Bank's Lao Landscapes and Livelihoods project. C: The grant will inform REDD+ Emissions Reduction Purchase Agreement (ERPA).
Mexico	Economic Valuation of Ecosystem Services (VES) to Strengthen Integrated Landscape Management in Selected Watersheds in Mexico	A: The studies will estimate physical and monetary valuation of prioritized Ecosystem Services building upon data collected by the National Institute of Ecology and Climate Change. B: Analytical products financed by the Grant will inform the World Bank GEF-7 project Connecting Watershed Health with Sustainable Livestock and Agroforestry Production. C: Both VES studies will inform an Integrated Watershed Action Plan on the physical and monetary valuation of the prioritized Ecosystem Services.

Table continued on next page

Table 3. Continued

Country	Activity	Expected Impacts <small>(groups A, B, & C defined at foot of table)</small>
Morocco	Toward sustainable growth in the Moroccan fisheries sector	<p>A: The grant will support physical and monetary accounts for fish stocks.</p> <p>B: The data will inform World Bank's Sustainable Development of Coastal Areas Project.</p> <p>C: The grant will inform the new fisheries sector policy, Halieutis Plan 2030.</p>
Nigeria	Natural Capital Accounting Roadmap for Nigeria	<p>C: The grant will inform policy dialogue for further development of NCA in Nigeria and lending related to air pollution management, coastal degradation and land degradation.</p>
Pakistan	Natural Capital Accounting of Protected Areas in Pakistan	<p>A: The study will compile data on Natural Capital/ Ecosystem Services.</p> <p>B: The data will inform National Climate Change Policy</p> <p>C: The grant will contribute to updating and implementing Pakistan's NBSAPs covering terrestrial and marine biodiversity.</p>
Rwanda	Natural Capital Accounting and Valuation of Ecosystem Services to Inform Decision-Making in Rwanda	<p>A: The grant will support the development of Rwanda's green GDP, which will be publicly accessible.</p> <p>B: Data on Natural Capital and Ecosystem Services will be used in the design and implementation of the Volcanoes Community Resilience Project.</p>
Uganda	Advancing the Uganda NCA program	<p>A: Physical and monetary ecosystem accounts will be developed.</p> <p>B: The data will inform Uganda Natural Capital, Environment and Climate Change Advisory Support Program; Investing in Forests and Protected Areas for Climate-Smart Development.</p>
Ukraine	Ukraine: Forest Sector Fiscal Policy & Options for Reform	<p>C: The grant will inform: (1) the State Forest Agency reform; and (2) the National Forest Strategy.</p>
Zambia	Technical assistance and capacity building for institutionalizing and mainstreaming the preparation and implementation of Natural Capital Accounts for policy application	<p>A: Tourism accounts will be developed.</p> <p>B: The data will inform World Bank project Transforming Landscapes for Resilience and Development in Zambia.</p> <p>C: The grant will inform the Eighth National Development Plan.</p>

The letters in the table refer to the contributions that each task will make to the achievement of the following GPS Impact indicators:

A: Compiling publicly accessible data on Natural Capital and Ecosystem Services.

B: Use data on Natural Capital and Ecosystem Services in the design and implementation of development policies, programs and projects, including those cofinanced by the World Bank.

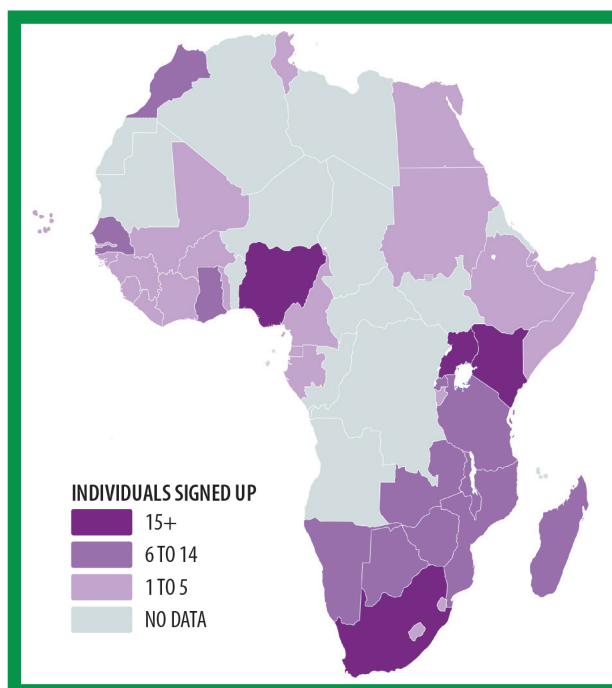
C. Policy documents (at the national or subnational level), such as development plans, sectoral policies and strategies, or bills, informed by GPS-supported activities.

AFRICA COMMUNITY OF PRACTICE ON NATURAL CAPITAL ACCOUNTING

On November 21, 2019, representatives from 18 African countries met in Kampala, Uganda for the first Africa Forum on Natural Capital Accounting, to create a new Community of Practice (CoP) on Natural Capital Accounting (NCA) in Africa. The day-long forum was co-organized by the World Bank through its Global Program on Sustainability (GPS), the Gaborone Declaration for Sustainability in Africa (GDSA) and the United Nations Statistics Division (UNSD), and hosted by the Government of Uganda. The countries

attending unanimously expressed a need for a regional learning and knowledge platform. Representatives from six African governments volunteered to form an Interim Working Group together with the supporting institutions, to start up the CoP (Box 7). The Interim Working Group developed and agreed on a governance structure, and a plan for activities, which include starting working groups on specific topics of country interest, webinars, trainings, and knowledge exchanges between countries.

Figure B7: Distribution of Africa Regional Community of Practice members



Box 7. Africa Regional Community of Practice at a glance

- 483 people from 48 countries
- 11 supporting organizations
- 11 webinars
- 770 participants

International Partners: The World Bank, UN Statistical Division, African Union Commission, African Development Bank, Capitals Coalition, Conservation International, European Commission, The Gaborone Declaration for Sustainability in Africa, Green Growth Knowledge Partnership, UNECA and UNEP.



IBRD 46297 |
DECEMBER 2021

This map was produced by the Cartography Unit of the World Bank Group. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.



gaborone declaration
for sustainability
in africa



System of
Environmental
Economic
Accounting



NATURAL
CAPITAL
COALITION



The goal of the CoP is to build capacity and momentum in Africa to mainstream Natural Capital Accounting into policy and statistical production, through developing a community of practice for NCA. The work will draw on the experience of WAVES and WAVES Plus, as well as the UNSD, GDSA Secretariat, and other organizations.

The expected intermediate outcomes are as follows:

- i. Increased cooperation and support between countries on using NCA;
- ii. Strengthened capacity of governments to use NCA for decision-making; and
- iii. Strengthened technical capacity on development and use of NCA in the region.

The CoP has been very active and has already taken strides toward all three of the expected outcomes. The CoP marked its first complete year in July 2021. Some highlights are as follows:

Governance

A Steering Committee (SC) was formed as the main governance body of the Africa Natural Capital Accounting Community of Practice (NCA-CoP) to provide leadership and steer development of its work plan. The SC is made up of key partner institutions and a selection of countries that represent regions of the African continent. The six institutions that represent the partner institutions in the SC are: the World Bank, African Union Commission (AUC), African Development Bank (ADB), Gaborone Declaration for Sustainability in Africa (GDSA), the United Nations Statistics Division (UNSD) and United Nations Economic Commission for

Africa (UNECA). The seven countries that represents the regions are: Botswana and South Africa (representing the Southern Africa region), Kenya and Uganda (East Africa region), Morocco (North Africa region), Rwanda (Central Africa region), and Senegal (West Africa region).

Webinars

The CoP holds a series of webinars to showcase experiences of different countries in their NCA journeys. In FY20 and FY21, 11 webinars were held ranging from: “[Ocean Accounting – Novel approaches to Ocean Governance](#)”, “[Combining Forces on Natural Capital: Working with the Private Sector](#)” to “[The Use of Natural Capital Accounts in Policy Scenario Analysis](#)” among others. See more webinars [here](#).

Training and capacity building

CoP members joined two e-learning courses on environmental statistics held by UN-SIAP (Statistical Institute for Asia and the Pacific, part of the capacity building arm of the United Nations Economic and Social Commission for Asia and the Pacific: ESCAP): “[Compiling Climate Change Indicators: an Accounting Approach](#)” and “[Disaster-Related Statistics Framework](#)”. Members were also invited to the UNECA training on [Macroeconomic Frameworks for an Inclusive Green Economy in Africa](#).

An annual needs assessment survey was conducted to identify the different individual and country needs regarding account development priorities, trainings, and other types of support requested. In FY22, the CoP will focus on the training needs identified and aim to enhance capacity for the CoP members.

A communications strategy was developed in FY21 and is now being implemented.

Working Groups

Operationalization of NCA-CoP Working Groups (WGs) took place during FY21. The four working groups are: Linking policy to NCA, Ocean Accounting, Business Working Group and Sustainable Finance and NCA, of which Ocean Accounting WG was already active in FY21.

Membership

The CoP membership continues to grow and currently stands at 48 African Countries and 483 individual members as of September 2021.

NCA CoP Telegram group

The NCA-CoP WhatsApp group vastly exceeded the number of group members allowed. A new Telegram group was created to accommodate the growing number of CoP members and enhance communication. The NCA-CoP Telegram group has been an effective channel for members to share upcoming events, training, reports and latest NCA updates from different institutions and around the world.

GLOBAL OUTREACH: POLICY FORUM ON NATURAL CAPITAL ACCOUNTING FOR BETTER DECISION MAKING

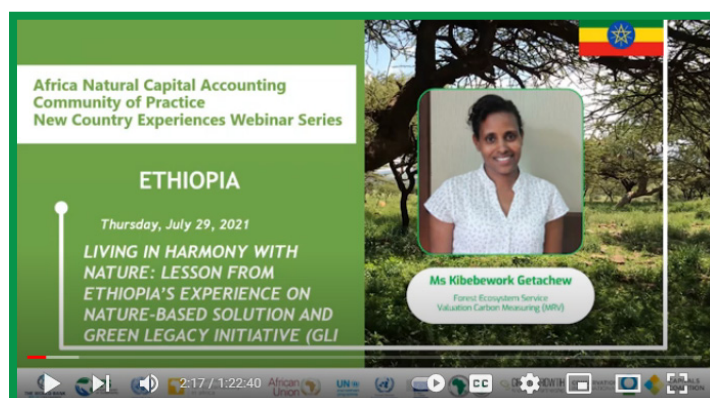
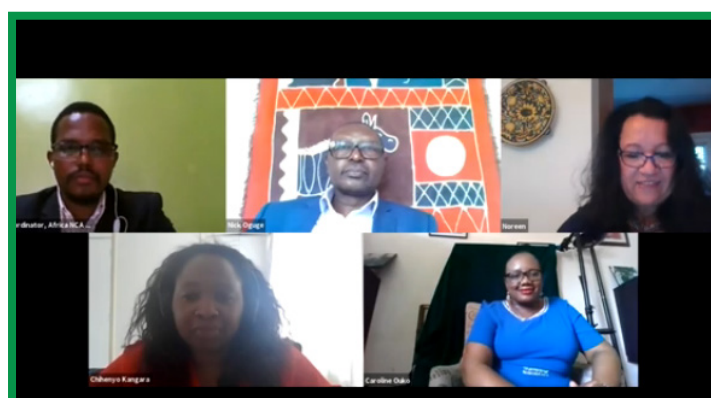
Presentations at the 5th NCA Forum:

Left: The Economics of Natural Capital in East Africa Program, funded by the United States Agency for International Development (USAID)

Right: Lessons from Ethiopia on nature-based solutions and Green Legacy Initiative

The GPS continues the WAVES tradition of global engagement and dialogue on NCA through Policy Forum on Natural Capital Accounting for Better Decision Making. The overall aim of the Forum is to share, explore and synthesize the experiences of countries that have been producing and using Natural Capital accounting (NCA), with the objective of providing guidance for countries on how to improve the use of accounting

for policy development and better decision making. Due to the COVID-19 pandemic, there was no forum in 2020. [The Fifth Policy Forum on Natural Capital Accounting for Better Decision Making – Greening the Recovery](#) took place in September 2021. In June 2021, an expert workshop was held to finalize the scope of the forum and discuss the technical material to be presented at the meeting.



Wind power plant
(Bos11 / Shutterstock)



PILLAR THREE

SUSTAINABLE FINANCE

This pillar aims to develop data, research, diagnostics, and technical assistance around Environmental, Social and Governance (ESG) data, with a focus on nature, and integrate such information into investment decision-making, financial regulation, and risk assessment. In 2020 demand continued to grow for data that can help financial market actors contribute to achieving the Sustainable Development Goals, the Paris Agreement goals, and the goals that are expected to be set by the Post-2020 Global Biodiversity Framework. The Sovereign ESG Data Portal, which launched in late 2019, provides key information on country-level ESG criteria, and has been widely used by investors in portfolio analysis and has even informed the design of indexes.

Pillar 3 delivered a research agenda on topics ranging from greening financial systems, to Sovereign ESG, and finance for nature. The team contributed to a nature-related risk assessment in Brazil and began one for Malaysia. The Pillar 3 team provided technical assistance to the government of Thailand on integrating ESG into the government pension fund and to the government of Colombia on greening its financial sector.

Data: Improved Sustainability Information for Financial Markets

The World Bank Sovereign ESG Portal (Box 9) includes indicators and resources for sovereign-level ESG analysis. The Sovereign ESG Data Portal has had more than 19,210 unique visitors as of June 30, 2021. Of those, 2,439 were return visitors. Underlying the information provided on the Sovereign ESG Data Portal is the data framework, which incorporates criteria relevant to all 17 Sustainable Development Goals, crucial for financial sector representatives to consider when assessing Sovereign ESG risks, opportunities, and potential for impact. The framework is being used in the following ways:

- A major international asset manager considered the Sovereign ESG Data Framework in the development of its sovereign sustainability index;
- A global investment bank has integrated the Sovereign ESG Portal data into its sovereign analysis

framework through an Application Programming Interface (API) software;

- A global ESG index provider uses the Sovereign ESG Data Framework in its 'ESG scorecard for Emerging Markets (EM) sovereign credit,' which is used to assess the more than 70 EM sovereigns that make up the EM Bond Index; and
- The Sovereign ESG Data Portal was referenced [in a report](#) by the U.S. Climate-Related Market Risk Subcommittee, part of the Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission. This information is expected to inform the climate finance policy of the Biden administration.
- Pillar 3 also published a report, 'An Analysis of Coverage Gaps in Sovereign ESG Data,' which is available in [HTML](#) or [PDF](#).

[Guest Viewpoint: Rory Sullivan & Fiona Stewart](#)

[Overheating pension pots: How resilient are pension systems to climate change?](#)

[Unlocking Private Finance for Nature](#)

[Investing in nature makes good economic sense](#)

[Corporate debt restructuring in times of COVID-19: The case for Debt-for-Climate swaps](#)

[Impact investing: A pension fund in Thailand shows the way from intention to implementation](#)

[My word is my bond: Linking sovereign debt with national sustainability commitments](#)

[Seeing the Forest for the Trees: Why Pension Funds Should Take Another Look at Forestry as an Asset Class](#)

[Moving from ambition to action toward a greener financial system](#)

[Sovereign ESG investing: We can do better](#)

[Linking Sovereign Debt with Climate & Nature Targets](#)

[Nature Action 100: A proposal for targeted investor engagement on biodiversity](#)

**Box 8. Blogs
published from
Jan 2020 to
June 2021**

Box 9. World Bank Sovereign ESG Data Portal: key facts

The World Bank Sovereign [ESG Data Portal](#) was launched in October 2019. From the launch, the portal had 12,507 unique visitors and 5,157 downloads of datasets. The portal is designed to help investors better align ESG analysis with key sustainable development policy indicators and analysis, as well as to increase data transparency and support private sector investments in emerging markets and developing countries.

The Sovereign ESG Data Framework comprises 17 themes which were selected to provide a balanced picture of policy performance and country conditions, given data availability. The initial set of indicators is based on both current market and World Bank usage of these criteria. The framework incorporates 67 indicators in total, covering all 17 Sustainable Development Goals. The dataset underlying the Portal, the [Sovereign ESG Data Set](#) is available on the World Bank Development Data Hub for all World Bank countries.

“Although investors have long been aware that ESG information is relevant—and in many cases critical for their investments—especially in developing countries, it has been a challenge for investors to make well-informed decisions due to lack of experience and data. This Sovereign ESG Data Portal will improve the quality, scope, transparency, and timeliness of publicly available ESG data, and gives investors and others the opportunity to benefit from research and field work experience. “GPIF trusts this data portal will improve and enhance the quality of investment decisions of our asset managers.” said Hiro Mizuno, Executive Managing Director and Chief Investment Officer, Government Pension Investment Fund (GPIF), Japan.

Research Agenda: Effects of Sustainability on the Financial Sector

Nine reports were published between June 2019 and June 2021, spanning sustainable finance topics from ‘mobilizing private finance for nature’ to ‘climate risk in pension funds.’ The findings of some of these papers were shared with members of the Coalition of Finance Ministers for Climate Action and the Network for Greening the Financial System. They were also disseminated through the UN Green Growth Knowledge Platform and the Emerging Markets Investors Alliance.

The Pillar 3 team also established an environmental data partnership project with the European Space Agency.

[The project explored the potential application of satellite imagery to assess ‘Natural Capital wealth and sovereign risk’ through crop health and weather-related indicators, to supplement existing sovereign ESG data metrics.](#)

A working group to set up a Taskforce on Nature-related Financial Disclosures (TNFD) was launched in 2020, and the World Bank provided technical input. The Pillar 3 team also conducted research, facilitated conversations, and coordinated interested parties to enable the establishment of the forthcoming ‘Nature Action 100’ investor engagement initiative on nature.

The following research publications were picked up by media outlets and trade publications. Additionally, certain publications were referenced in other high-level reports. The ‘Mobilizing Private Finance for Nature’ report was

referenced several times in the finance chapter of the Dasgupta Review. The Demystifying Sovereign ESG report was referenced in the Network for Greening the Financial System (NGFS) ‘Sustainable Finance Market Dynamics’ report.

- **Mobilizing Private Finance for Nature:** This report looks at the current state of play with regard to private finance in support of biodiversity and Ecosystem Services. The report argues that the financial sector has a critical role to play in addressing the global biodiversity crisis, and that governments and regulators hold the key to harnessing the power of the financial sector to mobilize private finance at scale to protect nature. The report highlights a set of “Big 5” ideas for actions that can be taken to better integrate biodiversity risk and opportunities into private sector decisions.
- **Riding the Wave: Navigating the ESG Landscape for Sovereign Debt Managers:** This report serves as the foundation of a proposed joint technical assistance offering by the World Bank covering issues related to sovereign debt management and ESG investing, including market development, debt management strategy, and labelled bond issuance.
- **Spatial Finance: Challenges and Opportunities in a Changing World** (produced jointly with WWF): This report outlines a possible taxonomy and hierarchy for spatial finance, showing how discrete forms of technology, approaches and data can be considered within a single consistent framework. Using this framework, spatial finance could provide insights at differing scales for different applications—from the asset-scale for project finance, to company-scale for investment, to country-scale for sovereign debt. Throughout the document, authors provide insights into current cutting-edge developments within the field, illustrated with case studies from practitioners and data providers, and explore potential future developments.
- **Toolkit for sustainable investment policy and regulation (part 1)** (produced jointly with Principles for Responsible Investment): provides a high-level overview of five foundational sustainable investment policies, explaining why each is important, setting out their key features and presenting some examples of such policies in action.

Box 10. Research Publications on Sustainable Finance prepared 2019–2021

- **Demystifying Sovereign ESG:** This paper demystifies sovereign ESG as a distinct segment of the ESG sector by assessing the major sovereign ESG providers that have laid the foundation for the operationalization of ESG investing in sovereign fixed income markets. Analysis underlying the paper finds an ingrained income bias in Sovereign ESG.
- **Pension Systems Plus Climate Risk: Measurement Plus Mitigation:** Pension Climate Risk Heatmap looks at the exposure of pension funds to climate change (according to the amount they invest domestically and their own country's climate risk). The report also examines the regulatory environment in which the pension funds operate as an important counterpart to the heatmap, to find out whether the necessary regulatory measures are being put in place by countries to help mitigate this climate risk. The results—along with recommendations to pension funds and regulators—are outlined in the report.
- **Pension Fund Investment in Forestry:** This report details the nature of forestry investments, explores the case for investing in forestry, explains the mechanics of forestry investments, and highlights some of the challenges. Forestry investment can offer financial and environmental, social, and governance (ESG) benefits. However, challenges to investing in forestry are significant, particularly in emerging markets. The report concludes that the time is right to support broader involvement by pension plans in forestry investments globally.
- **Natural Capital and Sovereign Bonds:** This working paper estimates the relationship between Natural Capital and government bonds through the macroeconomy and credit risks. It looks at both the long-term, between-country view and the short-term, within-country view. The paper finds that non-renewables (fossil fuels and mineral assets) raise bond yields, possibly due to the resource curse. Renewables (forests and agricultural wealth) lower borrowing costs because they are economically worthwhile investments. Protected areas are more likely to be luxury investments.
- **A New Dawn: Rethinking Sovereign ESG (joint with J.P. Morgan):** This publication consists of two independent reports. The first part is written by the World Bank and takes stock of the current sovereign ESG investing framework and proposes improvements. The second part presents a survey on ESG practices among emerging market (EM) sovereign debt investors conducted by J.P. Morgan, which launched the first EM sovereign ESG index in 2018.

Finance Assessments

The methodology for nature-related financial risk assessments is currently being developed. An assessment for Brazil was completed and published: [Nature-Related Financial Risks in Brazil](#). An assessment for Malaysia is under way. Additionally, Pillar 3 supported the development of the methodology for Climate and Environmental Risk and Opportunity (CERO) Assessments by the Financial Sector Assessment Program (FSAP – carried out

jointly by the World Bank and the IMF). This analysis provides countries with an assessment of climate and environment-related financial risks and opportunities they are facing. This was presented to the World Bank Board in June 2021. Components of this methodology were included in the ‘Sustainable Finance Toolkit’ report mentioned below. The first assessment was completed for [the Philippines](#).

Capacity Building, Disclosure, and Engagements

Between 2019 and 2021, a number of activities took place under Pillar 3 related to capacity building and technical assistance on the implementation of sustainable finance measures (Box 11). Highlights include:

- The [Toolkits for Policy makers to Green the Financial System](#) report, published in May 2021. The toolkits presented in this report aim to help countries set clear and predictable strategies, increase the attractiveness of green investments, and better understand and manage climate-related and environmental risks. Targeted financial public authorities may include ministries of finance or related government agencies, as well as central banks and financial supervisors or regulators. The report summarizes the key characteristics of each approach, provides key actions to drive implementation, and references other publications that provide more detailed guidance.
- Technical assistance provided to the Government Pension Fund of Thailand, which aims to be a lead ESG investor in the country and published the report, [Government Pension Fund: Thailand Environmental, Social, and Governance Weight and Score – Asset Valuation Methodology](#);
- [Preparation of ‘Sustainable Investment: Best Practice Disclosure Checklist for Pension Funds,’ which has been used to benchmark and inform the World Bank Group’s own pension fund’s sustainable investing approach.](#) The framework was applied in World Bank engagement in Colombia—which fed into national regulation governing the sector;
- Three additional country and regional sustainable finance contributions are under way (for Sub-Saharan Africa, Nepal, and Cambodia);
- Support to the Coalition of Finance Ministers for Climate Action, the Network for Greening the Financial System (NGFS), and the Sustainable Banking Network, which used several of the knowledge products mentioned above to inform their activities and deliberations;
- Technical assistance to the Government of Colombia on greening the financial sector. This included the use of the pension reporting benchmark, developed with GPS support, to guide policy advice in country operations. The result was the development of ESG reporting requirements, including ‘E’ elements beyond the existing governance requirements. [Proyecto de Circular Externa 21 -2021](#)

Box 11. Detailed activities related to capacity building and engagement

Specific activities carried out to provide capacity building and technical assistance on the implementation of sustainable finance measures:

Publication of the following reports:

- [Sustainable Investment: Best Practice Disclosure Checklist for Pension Funds](#)
- [Starting on a Sustainable Investing Journey \(published by Pension Fund Service\)](#)
- [Government Pension Fund: Thailand Environmental, Social, and Governance Weight and Score – Asset Valuation Methodology](#)
- [Toolkits for Policy Makers to Green the Financial System](#)

Contributions to international network agendas

Analytical contributions to the Coalition of Finance Ministers for Climate Action, the Network for Greening the Financial System (NGFS), and the Sustainable Banking Network.

- Contributed to the following Coalition workshop:
 - [Stakeholder Dialogue with the Convention on Biological Diversity Secretariat](#)
- Contributed to the following Coalition paper:
 - [Summary for Policy makers on Private Financial Sector Paris Alignment](#)
 - [Climate-Related Risks for Ministries of Finance: An Overview](#)
- Contributed to the following NGFS publications:
 - [Guide for Supervisors: Integrating Climate-related and Environmental Risks into Prudential Supervision](#);
 - [Status Report on Financial Institutions' Experiences from Working with Green, Non-green and Brown Financial Assets and a Potential Risk Differential](#); and
 - [Sustainable Finance Market Dynamics: An Overview and Dashboard](#).
- Contributed to the following Sustainable Banking Network (SBN) output:
 - [SBN's strategy on nature and biodiversity](#).

Presentation of GPS Pillar 3 research at 49 conferences and events in Asia, Europe, and the Americas, to investors, government representatives, NGOs, academics, and to World Bank staff. These events included:

- Chartered Financial Analyst (CFA) ESG Asset Owners Summit;
- Spatial Finance Initiative: Asset Level Data – Annual Meeting (University of Oxford);
- Responsible Investor Digital Fest and Digital Fest Japan;
- UNDP: Post-2020 Pavilion Virtual Biodiversity Dialogue Series;
- UN Principles for Responsible Investment: Building Sustainable Financial Systems in Emerging Markets; and
- 4th Annual EM ESG conference: JP Morgan and EM Investor Alliance.

Children play in a river
at sunset in Thailand
(PK Studio / Shutterstock)



MONITORING & EVALUATION

In FY21, the Bank team prepared a comprehensive Monitoring and Evaluation (M&E) plan, including a Theory of Change; a result framework with impact and outcome indicators; arrangements for monitoring program progress and reporting on it; and a framing note on impact assessment to be conducted in three stages during the life of the program. The plan was discussed at a workshop with the GPS donors, who later endorsed the plan as revised on the basis of the outcomes of the workshop.

This chapter summarizes progress being made on the achievement of the results included in the GPS M&E plan. As the World Bank's umbrella program on Natural Capital, Ecosystem Services and the economics of sustainability, GPS encompasses WAVES Plus. Therefore this chapter also reports on progress made on the WAVES plus indicators, using a "hybrid" approach. In particular, all indicators defined in the GPS M&E plan agreed upon with the GPS donors will be used; for Pillar 2, progress will also be tracked using the WAVES Plus indicators (Table 4).

Table 4. Hybrid approach to result reporting

Scope of indicators	Indicators used		
	This Progress report (FY20-21)	FY22 and FY23 progress reports	FY24 progress reports onwards
Program-wide	GPS impact indicators ^(a)		
Pillar 1	GPS Pillar 1 indicators ^(a)		
Pillar 2	WAVES Plus and GPS Pillar 2 indicators ^(a)	WAVES Plus and GPS Pillar 2 indicators ^(a)	GPS Pillar 2 indicators ^(a)
Pillar 3	GPS Pillar 3 indicators ^(a)		

(a): refers to GPS indicators included in the Program M&E plan finalized in consultation with GPS donors in June 2021

The hybrid approach enables proper tracking of results achieved with each source of funding. Since WAVES plus will close in December 2022, the progress reports for FY22 (which ends in June 2022) and FY23 (which spans July 2022 to June 2023, thus encompassing the final six months of WAVES Plus) will follow the hybrid approach described above. From the FY24 report onwards, only the GPS results framework will be used, thereby completing the transition.

Overall, the program is on track toward achieving its objectives (Table 5). Considering the time left prior to the closing of the two Trust Funds (that is, 1.5 years and 4.5 years for WAVES Plus and GPS respectively): for the vast majority of indicators (82%) the expected target has either already been met (or exceeded, 58%); or activities are well under way to achieve it (24%).

To further explain the summary figures reported in Table 5, consider an indicator expected to achieve a value of 5 by the end of the respective program. Prorated by the time left till the closing date of the relevant Trust Fund, (that is, December 2022 for WAVES Plus and December 2025 for GPS), by the end of the current reporting period (June 2021) that indicator would be expected to meet or exceed the values of 3.5 and 1.8, for WAVES plus and GPS, respectively. Indicators that have achieved the said cutoff levels are assigned to class A (meet or exceed end of program target); indicators for relevant activities that have started during the reporting period but have not yet been completed are assigned to class B; the remaining indicators are assigned to class C.

Table 5. Progress in achieving GPS/ WAVES Plus results

Pillar	Number of indicators	Share of indicators by progress toward end of program target		
		A. Indicator meeting or exceeding target ^(a)	B. Indicator on its way to achieve target ^(b)	C. Relevant activities expected to start soon
GPS	26	38%	35%	27%
Program-wide	7	29%	29%	43%
Pillar 1: Global data and information	6	33%	50%	17%
Pillar 2: Country and regional work	4	0%	75%	25%
Pillar 3: Sustainable finance	9	67%	22%	11%
WAVES Plus	19	84%	5%	11%
Pillar 2	19	84%	5%	11%
Grand total	45	58%	24%	18%

(a): For each pillar, the table reports the share of the corresponding indicators that meet or exceed their end-of program targets, taking into account the time remaining prior to the closing of the WAVES Plus Trust Fund (December 2022) and the GPS Trust Fund (December 2025).

(b): Indicators for which relevant activities have started during the reporting period

The rest of the tables in this chapter provide information on progress at the level of individual indicators, organized by program pillar.

Table 6. Progress in achieving GPS Impact indicators

Indicators (and unit of measurement)	Baseline	Value at end FY21	Notes	End of program target	Indicator class ^(defined in notes below)
1. Countries supported by the program that are compiling publicly accessible data on Natural Capital and Ecosystem Services (number)	21 ^(a)	24	Progress under way in Chad, Mexico, Pakistan ^(b)	27	B
2. Countries supported by the program that have used data on Natural Capital and Ecosystem Services in the design and implementation of development policies, programs and projects, including those co-financed by the World Bank (number)	21 ^(a)	25	Progress under way in Bolivia, Ghana, Mexico, Pakistan ^(b)	37	C

Table continued on next page

Table 6 continued

Indicators (and unit of measurement)	Baseline	Value at end FY21	Notes	End of program target	Indicator class <small>(defined in notes below)</small>
3. Policy documents (at the national or subnational level), such as development plans, sectoral policies and strategies, or bills, informed by GPS-supported activities (number)	45 ^(c)	50	Progress under way in Chad, Mexico, Nigeria, Pakistan, Ukraine ^(b)	57	B
4. Annual unique visitors on Sovereign ESG Data Portal (number),	0	19,210		25,000	A
Of which return visitors (%)		59%		40%	
5. Share of investors ^(d) considering nature in their sovereign bond investments (%)	20% ^(e)	20%	Survey planned in FY22	30%	A
6. Share of investors using WB data in their sovereign bond investment (%)	20% ^(e)	20%	Survey planned in FY22	30%	C

(a) The baseline includes countries supported by WAVES or WAVES Plus, namely Botswana, Cambodia, Colombia, Costa Rica, Egypt, Ghana, Guatemala, Indonesia, Kyrgyz Republic, Lao PDR, Madagascar, Morocco, Myanmar, Nepal, Nigeria, Philippines, Rwanda, Uganda, Uzbekistan, Vietnam, and Zambia.

(b) Includes countries that are on their way to achieve the results, as discussed in detail in other chapters of the report.

(c) The baseline refers to the policy documents discussed in the WAVES closeout report.

(c) Investors are defined as those participating in the Emerging Markets Investors Alliance and participating in regular surveys administered by the Alliance.

(d) The baseline is an estimate by the GPS Secretariat and will be verified during the first year of implementation.

Indicator classes:

A: Indicator meeting or exceeding target

B: Indicator on its way to achieve target

C: Relevant activities expected to start soon

Table 7. Pillar 1 Result indicators (GPS Results Framework)

Component/ Indicators (and unit of measurement)	Type	Baseline	Value at the end of FY21	Notes	End of program Target	Indicator class
Measuring sustainability						
1. New or improved global datasets or data layers on Natural Capital or Ecosystem Services (number)	Outcome	5	9	New data layers for mangroves and marine fisheries in wealth accounts. Improved wealth measures for agriculture and forest Ecosystem Services	12	A

Table 7 continued

Component/ Indicators (and unit of measurement)	Type	Baseline	Value at the end of FY21	Notes	End of program Target	Indicator class
2. Global data and knowledge platform on natural capital and ecosystem services establishment and operationalization	Outcome	0	0	Consultations being held with key partners (such as UNSD, ARIES team, BC3, IDB, WRI, IFC) on the design of the platform	1	B
3. Technical reports on the economics of sustainability (number)	Output	0	2	As part of the Road to Kunming work: a) Report on Mobilizing Private Finance for Nature published (A) b) Report on the Economic Case for Nature launched (A) c) Unlocking Nature-Smart Development: An Approach Paper on Biodiversity and Ecosystem Services launched (B) d) Concept note prepared for a new report on Environmental Fiscal Reform (B)	4	A
Mainstreaming sustainability						
4. Flagship publications (Changing Wealth of Nations- CWON) (number)	Output	3	3	Substantial Progress made on the new edition of CWON, to be published in 2021	5	B
5. Tools and guidance notes to support the integration of Natural Capital in decision making (number)	Output	0	0	a) Advanced version of the Ecosystem Services Assessment Toolkit (ESAT) b) Scoping work carried out on the modeling platform	3	B
6. Training sessions on the use of NCA approaches in NBSAPs, NBS, NDCs and in projects (number)	Output	0	0	Internal consultations held on the design of training activities	6	C

Indicator classes:

A: Indicator meeting or exceeding target

B: Indicator on its way to achieve target

C: Relevant activities expected to start soon

Table 8. Pillar 2 Result indicators (WAVES Plus)

Component/ Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
Country Work						
Countries supported by the project with at least two environment-related sectors in Natural Capital accounts in accordance with defined criteria and publicly accessible	Outcome	0	5	Zambia, ^(a) Uganda, ^(a) Egypt, ^(a) Morocco, ^(a) Kyrgyz Republic, ^(a) Mexico ^(b)	4	A
Countries supported by the project with at least two policy analyses related to Natural Capital accounting made publicly accessible	Outcome	0	6	Nepal, ^(a) Zambia, ^(a) Uganda, ^(a) Egypt, ^(a) Myanmar, ^(a) Cambodia, ^(a) Mexico, ^(b) Morocco ^(b)	10	B
IR Indicator 1.1: Countries supported by the project with Natural Capital Accounts Steering Committee established	Output	0	4	Zambia, ^(a) Uganda, ^(a) Morocco, ^(a) Egypt ^(a)	4	A
IR Indicator 1.2: Skilled staff in relevant government institutions participating in Natural Capital accounting and related policy analysis (the number of females who participated)	Output	0	260 (72)	Estimate of participants in technical trainings	10	A
IR Indicator 1.3: Countries supported by the project with first preliminary draft Natural Capital accounts collected in their second year (of which x have ecosystem accounts)	Output	0	5 (2)	Kyrgyz Republic, ^(a) Uganda, ^(a) Zambia, ^(a) Egypt, ^(a) Morocco ^(a)	4	A
IR Indicator 1.4: Countries supported by the project with validation and publication of final Natural Capital accounts in their third year, and made publicly accessible (of which x have ecosystem accounts)	Output	0	4	Zambia, ^(a) Uganda, ^(a) Egypt, ^(a) Morocco, ^(a) (though the latter only had 1.5 years of programs)	4	A
IR Indicator 1.5: Countries supported by the project with preparation phase finalized, including firm political commitment received, key entry point for policy making/policy questions, and accounts identified	Output	0	11	Kyrgyz Republic, ^(a) Lao PDR, ^(a) Madagascar, ^(a) Nepal, ^(a) WACA program, ^(a) Cambodia, ^(a) Myanmar, ^(a) (TTAs); Uganda, ^(a) Zambia, ^(a) Egypt, ^(a) Morocco, ^(a) (CICs)	4	A

Table 8 continued

Component/ Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
IR Indicator 1.6: Number of key policy documents such as development plans, sectoral policies and strategies, or bills that reference NCA or the accounts	Outcome	0	6	Nepal (1) ^(a) , Uganda (1) ^(a) , Zambia (3) ^(a) , Morocco (1) ^(a) , Mexico (2) ^(b) , Morocco (1) ^(b)	4	A
IR Indicator 1.7: Countries supported by the project with policy question(s) identified, methodologies chosen, and first results available (number of TTAs)	Output	0	10 (6)	Lao PDR, ^(a) Madagascar, ^(a) Nepal, ^(a) WACA program, ^(a) Cambodia, ^(a) Myanmar, ^(a) Mexico, ^(b) (TTAs); Uganda, ^(a) Zambia, ^(a) Egypt, ^(a) Morocco, ^(a) (CICs)	10	A
IR Indicator 2.3: Number of countries with targeted technical assistance	Output	0	10	Cambodia, ^(a) Lao PDR, ^(a) Madagascar, ^(a) Myanmar, ^(a) Nepal (2) ^(a) , Uzbekistan, ^(a) Vietnam, ^(a) WACA regional program (Ghana, Nigeria), ^(a) Kyrgyz Republic, ^(a)	12	A
Direct project beneficiaries (the number of female beneficiaries)	Output	0	1,575		160	A
Regional work						
IR indicator 2.1: Regional knowledge events on NCA supported by the project	Output	0	26	Webinar/training events under Africa NCA CoP	3	A
IR Indicator 2.2: Regional knowledge products supported by the project made publicly accessible	Output	0	4	FY20: Report from Africa NCA CoP	3	C
Global work						
IR Indicator 3.1: Global knowledge events on developing ecosystem accounts supported by the project	Output	0	9	FY20: Virtual Ecosystem Expert Forum	7	A
IR Indicator 3.2: Global knowledge products on developing ecosystem accounts made publicly accessible	Output	0	3	FY20: Contributions to the SEEA-EEA revisions	7	C

Table continued on next page

Table 8 continued

Component/ Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
IR Indicator 3.3: Global knowledge events on policy uses of NCA supported by the project	Output	0	4	FY20: 4th NCA Policy Forum in Kampala	5	A
IR Indicator 3.4: Global knowledge products on policy uses of NCA made publicly accessible	Output	0	4	FY20: Proceedings from 4th Policy Forum	5	A
IR Indicator 3.5: Hits on WAVES website (global and country pages)	Output	93,255 in 2015	152,000		149,208	A
(Subscribers newsletter)	Outcome	0	4,500		4,000	A

↑ (a) Result achieved

(b) Work under way to achieve result

Indicator classes:

A: Indicator meeting or exceeding target

B: Indicator on its way to achieve target

C: Relevant activities expected to start soon

(a) The baseline CIC countries are: Botswana, Colombia, Costa Rica, Egypt, Guatemala, Indonesia, Madagascar, Morocco, Philippines, Rwanda, Uganda, and Zambia.

(b) The baseline TTA countries are: Cambodia, Ghana, Kyrgyz Republic, Lao PDR, Myanmar, Nepal, Nigeria, Uzbekistan, and Vietnam.

(c) Work under way to achieve result. Some countries to receive follow-on TTA support following WAVES Plus.

Indicator classes:

A: Indicator meeting or exceeding target

B: Indicator on its way to achieve target

C: Relevant activities expected to start soon

Table 9. Pillar 2 Result indicators (GPS)

Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
Core Implementing Countries (CICs) supported by the program (number)	Outcome/ Output	12(a)	12	Call for proposal prepared in FY21	18	C
Targeted Technical Assistance (TTAs) supported by the program (number)	Outcome/ Output	9 ^(b)	24	Bolivia, ^(c) Cambodia ^{2(c)} , Chad, ^(c) Ghana ^{2(c)} , Kazakhstan, ^(c) Kyrgyz Republic ^{2(c)} , Lao PDR ^{2(c)} , Mexico, ^(c) Morocco, ^(c) Nigeria ^{2(c)} , Pakistan, ^(c) Rwanda, ^(c) Uganda, ^(c) Ukraine, ^(c) Zambia ^(c)	20	B
Regional Communities of Practice (RCoPs) established and operational (number)	Outcome/ Output	0	1	Africa	2	B
Global knowledge events on NCA policy uses supported by the project (number)	Output	4	5	Expert workshop on NCA/Green Recovery June 2021	8	B

Table 10. Pillar 3 Result indicators (GPS Results Framework)

Components/ Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
Sustainability information						
1. ESG Sovereign Data platform established and operational (Yes/No)	Outcome	No	Yes	The Portal was launched in 2019.	Yes: Interactive portal	A
2. Innovative financial products launched (number)	Outcome	0	0	Products are under development, but not yet launched.	2	B
Research agenda						
3. An annual research program on sustainable finance is delivered (Yes/No)	Output	No	Yes	9 publications were released during this time period.	Yes: 3 publications (per year)	A
Finance assessments						
4. Countries conducting nature-related financial risk assessments for the financial sector (number)	Output	0	1	The methodology is currently being developed. An assessment for Brazil was completed and one for Malaysia is under way.	8	C
5. Financial Sector Assessment Program (FSAP) Climate and Environmental Risks and Opportunities (CERO) methodology designed and delivered to the WB Board (number)	Output	0	1	The methodology was delivered to the World Bank Board in June 2021.	1	A
Capacity building, disclosure, engagements						
6. Toolkits for sustainable investment policy and regulation, implementation papers (number)	Output	0	1	The toolkits paper was delivered in May 2021. Two implementation papers are under way (on greening development banks and climate-related reporting).	8	B
7. Contributions to sustainable finance country engagements (number)	Output	0	2	Contributions to Thailand on ESG integration in the government pension fund and Colombia on greening the financial system were completed. Three contributions are under way (for Sub-Saharan Africa, Nepal, and Cambodia).	4	A

Table continued on next page

Table 10 continued

Components/ Indicators (unit of measurement)	Type	Baseline	Value as of end FY21	Notes	End of program Target	Indicator class
8. Sustainable finance events (organized and participated in) (number)	Output	0	49	GPS work was presented at 49 events and conferences globally to a range of different stakeholders.	4 (per year)	A
9. WB contributions to international network agendas (Network for Greening the Financial System / Coalition Finance Ministers/ Sustainable Banking Network) (number)	Output	0	3	GPS supported Pillar 3 contributions to three papers (one that included a data dashboard) published by NGFS in 2020 and 2021. GPS contributed to one paper published by the Coalition on private financial sector Paris alignment and to the SBN strategy to incorporate biodiversity into its work.	4	A

Indicator classes:

A: Indicator meeting or exceeding target

B: Indicator on its way to achieve target

C: Relevant activities expected to start soon



FINANCIAL REPORT

The WAVES Plus Multi-donor Trust Fund was set up in November 2016. Total pledges (i.e. signed contributions) to WAVES Plus to date amount to \$10.1 million. By the end of fiscal year 2021 (end June 2021), \$8.8 million of it was disbursed. WAVES Plus was scheduled to close at the end of December 2020. An agreement was reached between the development partners and the World Bank to extend WAVES Plus by two years till December 2022.

The GPS Multi-Donor Trust Fund was set up at the beginning of 2019 with seed funds pledged by Germany's Federal Ministry for Economic Cooperation and Development (BMZ) in the amount of 2 million Euros. In 2020, the UK (DEFRA) made a contribution of \$26.2 million to GPS; Germany (BMZ) and Switzerland (SECO) made additional pledges for 2 million Euros and 3 million Swiss Francs, respectively. Total signed contributions under the GPS MDTF as of the end of fiscal year 2021 were \$34.1 million, and paid-in contributions were \$30.7 million. Of this amount, \$3.6 million was disbursed as of the end of fiscal year 2021.

Table 11 and Table 12 show the financial status of the WAVES Plus and GPS Multi-Donor Trust Funds (MDTFs) as of June 30, 2021. Of the total donor pledges (signed contributions) for the two trust funds of \$44.3 million, an amount of \$40.0 million has been transferred (paid-in) to the World Bank as of the end of June 2021. The two trust funds disbursed or committed \$13.1 million (\$8.8 million for WAVES Plus and \$4.3 Million for GPS); in relation to the funds transferred to the World Bank, this amounts to 94% for WAVES Plus (which is nearing completion); and 14% in the case of GPS (which is expected to close at the end of 2025).

Table 11. Financial Summary (in US\$, as of June 30, 2021)

	WAVES+ Trustee TF072708	GPS Trustee TF073257	Total
A. Total donor pledges, per signed Administration Agreement	10,097,150	34,198,628	44,295,778
United Kingdom – DFID	2,540,500		2,540,500
EU-Commission of the European Communities	3,056,650		3,056,650
Netherlands Minister for Foreign Trade and Development Cooperation	4,500,000		4,500,000
Germany Bundesministerium für Wirtschaftliche Zusammenarbeit (BMZ)		4,636,568	4,636,568
United Kingdom Department for Environment, Food and Rural Affairs (DEFRA)		26,215,522	26,215,522
Swiss State Secretariat for Economic Affairs (SECO)		3,346,538	3,346,538
B. Actual funds received from donors*	9,264,920	30,737,228	40,002,148
United Kingdom - DFID	2,540,500		2,540,500
EU-Commission of the European Communities	2,224,420		2,224,420
Netherlands Minister for Foreign Trade and Development Cooperation	4,500,000		4,500,000
Germany Bundesministerium für Wirtschaftliche Zusammenarbeit (BMZ)		2,269,200	2,269,200
United Kingdom Department for Environment, Food and Rural Affairs (DEFRA)		26,215,522	26,215,522
Swiss State Secretariat for Economic Affairs (SECO)		2,252,506	2,252,506
C. Other adjustments	180,876	109,226	290,102
Administrative fees to World Bank central units (-)			
Investment income (+)	180,876	109,226	290,102
D. Total funds available (B+C)	9,445,796	30,846,454	40,292,250
E. Grants: Allocations	10,103,011	10,187,369	20,290,380
WAVES+	10,103,011		10,103,011
GPS		10,187,369	10,187,369
F. Grants: Disbursements & Commitments	8,801,150	4,369,884	13,171,034
Funds disbursed	8,649,661	3,605,311	12,254,972
Funds committed to be disbursed - BETFs	151,489	764,573	916,062
Funds committed to be disbursed - RETFs			-
G. Funds available (Trustee & Grant level)	644,568	26,649,982	27,294,550
at Grant and Subfund level after disbursements and commitments	644,596	1,382,137	2,026,733
at Trustee level after allocation to grants	-28	25,267,845	25,267,817

Source: My Trust Fund database, November 10, 2021.

DFID = Department for International Development

GIZ = Deutsche Gesellschaft Für Internationale Zusammenarbeit

BMZ = Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

* Will fluctuate with exchange rate changes.

Both programs support country-level and global activities, as well as cross-cutting quality assurance and program management work. The content of the country-specific work is defined in close collaboration with governments and other country stakeholders; it includes in-country communications and training workshops, as well as regional workshops. Global work includes analytical and data activities applicable to as many countries as possible, as well as knowledge sharing, outreach and communication, as illustrated in other chapters of this report. The breakdown of spending across components is reported in Table 13 and Table 14 for WAVES Plus and GPS, respectively⁵.

For WAVES Plus, the bulk of resources has been used to date for country/regional work (some 58 percent of total funds disbursed or committed). Global activities have been supported with a 37 percent share of the total; program management and quality assurance activities accounted for some 5 percent of the total.

In the case of GPS, during the first two years of implementation (when only seed funds for the program were available) efforts have focused on global level work under Pillar 1, and sustainable finance work under Pillar 3.

Together, they accounted for some 60% of funds disbursed or committed. Country level work has only started in earnest only in 2021, following the sizable financial contribution provided by DEFRA to the program. The share of country work was 18% of the total amount of resources committed or spent; program management and quality assurance activities accounted for 20% of the total.

Moving forward, it is expected that the share of country and regional work will considerably increase, in line with share envisaged in the 2020 workplan (53% of the total resources programmed); and as the GPS management team improves the granularity of its financial reporting (since activities currently mapped to Pillar 1, or Pillar 3 often support country level work).

For both WAVES Plus and GPS, the overall structure of this year's financial report is consistent with previous reports, and includes the presentational improvements contained in the 2019 annual report (for example, footnotes to better specify the nature of some activities).

⁵ It is worth noting that in these tables the total figures on allocations, disbursements and commitments are in line with the financial reporting accessible via the Client Connection portal. However, the breakdown of the totals figures may be in certain cases be different between the present report and the data in the portal. The reason is that the latter uses individual disbursing Trust Funds as units of account; whereas this report uses, for ease of comparison with the workplan, program components or sub-components as units of accounts. In some cases, multiple disbursing trust funds support the same program component; in some others, a single individual disbursing funds support the implementation of multiple components.

Table 12. Donor Pledge and Contribution Summary (as of June 30, 2021)

Donor	Cur- rency	Pledges		Contribution made		Outstanding Contribution		Paid in %
		Amount in Con- tribution Currency	Amount in US\$*	Paid in Contri- bution Currency	Paid in US\$*	Unpaid in Contri- bution Currency	Unpaid in US\$*	
United Kingdom - Foreign, Commonwealth and Development Office	GBP	2,000,000	2,540,500	2,000,000	2,540,500	-	-	100%
Netherlands - Minister for Foreign Trade and Development Cooperation	USD	4,500,000	4,500,000	4,500,000	4,500,000	-	-	100%
EU-Commission of the European Communities	EUR	2,700,000	3,056,650	2,000,000	2,224,420	700,000	832,230	73%
Subtotal WAVES+			10,097,150		9,264,920		832,230	92%
Germany - Bundesministerium für Wirtschaftliche Zusammenarbeit	EUR	4,000,000	4,636,568	2,000,000	2,269,200	2,000,000	2,367,368	49%
UK - Department for Environment, Food and Rural Affairs (DEFRA)	USD	26,213,442	26,213,442	26,213,442	26,213,442	-	-	100%
UK - Department for Environment, Food and Rural Affairs (DEFRA)	GBP	1,586	2,081	1,586	2,081	-	-	100%
Swiss State Secretariat for Economic Affairs (SECO)	CHF	3,000,000	3,346,538	2,000,000	2,252,506	1,000,000	1,094,032	67%
Subtotal GPS			34,198,628		30,737,228		3,461,400	90%
Total WAVES+ and GPS			44,295,778		40,002,148		4,293,630	90%

Source: SAP and My Trust Fund database, November 10, 2021.

DFID = Department for International Development

GIZ = Deutsche Gesellschaft Für Internationale Zusammenarbeit

BMZ = Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

* Will fluctuate with exchange rate changes.

Table 13. WAVES Plus Trust Fund: Summary of disbursements and commitments (in US\$, as of June 30, 2021)

Activities	Allocation	Disbursed	Committed	Disbursed & Committed	Available balance
COUNTRY WORK					
WAVES+ CICs	2,420,536	2,395,568	0	2,395,568	24,967
Uganda Natural Capital Accounting Support	600,536	600,536	0	600,536	0
WAVES – Egypt	470,000	469,509	0	469,509	491
WAVES Morocco	625,000	611,263	0	611,263	13,737
WAVES+ Zambia	725,000	714,261	0	714,261	10,739
WAVES+ TTA	1,981,888	1,755,284	28,045	1,783,329	198,559
Central Asia: Climate and Environment (CLIENT) Program-UZ WAVES	249,988	249,988	0	249,988	0
Enhancing Capacity for integrating ecosystem accounting in landscape planning in Cambodia	110,475	110,475	0	110,475	0
LAUREL- Assessing Ecosystem Services at Landscape and National Levels for improved landscape management in Madagascar	242,267	242,267	0	242,267	0
Myanmar WAVES TTA: Forest Contribution to Resilient Coastal Economies in Myanmar	169,985	169,985	0	169,985	0
Vietnam: Assessing the contribution of coastal assets to climate resilience	175,000	174,868	0	174,868	132
WAVES – Nepal	249,999	249,999	0	249,999	0
WAVES Plus - Nepal	68,837	68,837	0	68,837	0
WAVES Plus - Lao PDR	121,311	121,311	0	121,311	0
WAVES Plus Kyrgyz Republic	334,423	334,423	0	334,423	0
WAVES+ TTA Uruguay	24,602	24,602	0	24,602	0
UG: Advancing the Uganda NCA program	125,000	798	7,110	7,908	117,092
Mexico CONECTA - Valuation of Ecosystem Services	110,000	7,731	20,935	28,666	81,334
Preliminary country work	181,990	181,990	0	181,990	0
Subtotal country activities	4,584,414	4,332,843	28,045	4,360,888	223,526
REGIONAL WORK					
WAVES+ Regional Work	169,174	169,174	0	169,174	0
WACA Program ^(a)	351,003	351,003	0	351,003	0
Africa Regional NCA CoP	217,000	107,485	70,000	177,485	39,515
Subtotal regional activities	737,176	627,661	70,000	697,661	39,515

Table continued on next page

Activities	Allocation	Disbursed	Committed	Disbursed & Committed	Available balance
GLOBAL WORK					
WAVES+: Methodology and Global Engagement	267,995	267,995	0	267,995	0
WAVES+: Annual Partnership Forums ^(b)	962,002	860,999	12,000	872,999	89,003
WAVES+ Global Engagement and Strategic Communications ^(c)	642,655	623,814	3,516	627,330	15,326
Changing Wealth of Nations 2021 ^(d)	1,148,768	968,308	0	968,308	180,460
Road to Kunming Work ^(e)	540,000	503,335	6,166	509,501	30,499
Subtotal global activities	3,561,421	3,224,452	21,682	3,246,134	315,287
Waves Program Management and Administration and quality assurance	495,000	464,560	0	464,560	30,440
Total	9,378,011	8,649,516	119,727	8,769,243	608,768
Funds available in the Trustee and Subfund level but not yet allocated					67,736
Total funds available in the Trustee, Subfund and Grant level					676,503

Source: SAP Trust Fund Report, July 28, 2021.

Note: There are minor differences in the commitment figures compared to Table 11, as the SAP Trust Fund Report was drawn on different dates (the commitments are always displayed as of the date the report is run, whereas “as of” dates can be specified for other variables.

CICs = core implementing countries; TTA = targeted technical assistance

(a) Sum of disbursing Trust Funds named “WAVES, Economics and WACA” and “WAVES+ TTA WACA”

(b) Sum of disbursing Trust Funds named “WAVES+ Policy Uses of NCA,” and “WAVES+: Annual Partnership Forums”

(c) Sum of disbursing Trust Funds named “WAVES+ Global engagement and strategic communications”

(d) Sum of disbursing Trust Funds named “CWON EcoServ” and “CWON DriversOfChangeDecomp”

(e) Disbursing Trust Fund named “WAVES Plus Modeling of changes in land use, cropland values and Ecosystem Services”

Table 14. GPS Trust Fund: Summary of disbursements and commitments (in US\$, as of June 30, 2021)

Activities	Allocation	Disbursed	Committed	Disbursed & Committed	Available Balance
PILLAR 1. GLOBAL WORK: INFORMATION (A)					
1.1.1 Global data & knowledge platform on Natural Capital and Ecosystem Services: Road to Kunming Work	15,500	15,498	0	15,498	2
1.1.2 New or improved global data layers on Natural Capital or Ecosystem Services	470,000	450,567	15,941	466,508	3,492
1.1.3 Technical reports on Ecosystem Services and/or the economics of sustainability	365,000	282,017	41,325	323,342	41,658
1.2.1 Publications reporting and/or analyzing global or regional data on Natural Capital and/or Ecosystem Services	330,000	304,318	15,941	320,259	9,741
1.2.2 Technical reports, tools and guidance notes on the use of NCA approaches for planning and policy purposes (e.g. SCDs, CPFs, NBSAPs, NBS, NDCs) and in projects (e.g. CBA, M&E, ESF)	488,808	260,237	122,516	382,753	99,801
1.2.3 Training sessions on the use of NCA approaches in NBSAPs, NBS, NDCs and in projects	3,744	3,744	0	3,744	0
Subtotal Pillar 1. Global work: Information	1,673,053	1,316,382	195,723	1,512,104	160,948
PILLAR 2. COUNTRY-LEVEL WORK					
2.1 PILLAR 2 MANAGEMENT AND QUALITY ASSURANCE (PMQA) (a)	373,000	372,061	0	372,061	939
2.1.1 Core Implementing Countries	0	0	0	0	0
2.1.2 Targeted Technical Assistance	1,340,500	329,438	239,028	568,466	772,034
Indonesia Coastal Natural Capital Accounts	150,000	90,479	0	90,479	59,521
Indonesia Peatland Modeling	175,000	155,272	18,000	173,272	1,728
Enhancing Natural Resources Management in Cambodia	112,500	0	0	0	112,500
Valuing the cost of environmental degradation in Chad	75,000	0	28,800	28,800	46,200
Support in financing and delivering the circular economy in Almaty	75,000	6,776	45,000	51,776	23,224
Kyrgyz Republic: Policy Applications of NCA/VES	30,000	8,307	18,900	27,207	2,793
Landscape Valuation for Decision Support in Lao PDR	85,500	5,439	0	5,439	80,061
Strengthen Natural Capital Accounting (NCA) institutionalization and policy formulation in Rwanda	112,500	4,050	52,161	56,212	56,288

Table continued on next page

Activities	Allocation	Disbursed	Committed	Disbursed & Committed	Available Balance
Natural Capital Accounting Roadmap for Nigeria	75,000	33,499	37,940	71,439	3,561
Technical assistance and Capacity building for Institutionalizing and mainstreaming of Natural Capital Accounts for policy application	112,500	16,078	0	16,078	96,422
Bolivia: Green Recovery in the Chiquitania	75,000	7,086	4,650	11,736	63,264
Natural Capital Accounting Just-in-Time Study in Pakistan	75,000	0	30,000	30,000	45,000
Ukraine-Forest Sector Fiscal Policy & Options for Reform	112,500	2,452	3,577	6,029	106,471
JIT– Ghana –Vulnerability Assessment	75,000	0	0	0	75,000
2.2 Regional cooperation	0	0	0	0	0
2.3 Global engagement	0	0	0	0	0
Subtotal Pillar 2. Country-level work	1,713,500	701,499	239,028	940,527	772,973
PILLAR 3. SUSTAINABLE FINANCE					
3. PILLAR 3 MANAGEMENT AND QUALITY ASSURANCE (PMQA)	76,000	72,115	0	72,115	3,885
3.1 Improved sustainability information for financial markets	359,750	315,308	1,500	316,808	42,942
3.2 Research agenda on effects of sustainability on the financial sector	452,491	445,262	0	445,262	7,229
3.3 Sustainable finance assessments	395,127	74,781	46,012	120,793	274,334
3.4 Capacity building, disclosure, and engagements	166,419	80,518	10,320	90,838	75,581
Subtotal Pillar 3. Sustainable Finance activities	1,449,787	987,983	57,832	1,045,815	403,972
PILLAR 4. GPS PROGRAM MANAGEMENT AND ADMINISTRATION AND QUALITY ASSURANCE (a)					
4.1. Strategic communications	150,250	148,557	1,685	150,242	8
4.2 Monitoring and evaluation	96,000	95,441	0	95,441	559
4.3. Program Management and quality assurance	494,066	380,308	19,734	400,042	94,024
Subtotal Pillar 4. GPS Program Management and Administration and quality assurance	740,316	624,307	21,419	645,726	94,590
Total	5,576,656	3,630,170	514,002	4,144,172	1,432,484
Funds available in the Subfund level but not yet allocated					1,948
Total funds available in the Subfund and Grant level					1,434,432

Source: SAP Trust Fund Report, July 28, 2021.

Note: There are minor differences in the commitment figures compared to Table 11, as the SAP Trust Fund Report was drawn on different dates (the commitments are always displayed as of the date the report is run, whereas “as of” dates can be specified for other variables).

Legend: CICs = core implementing countries; TTA = targeted technical assistance; JIT = Just in Time small scale grant

(a): figures for these items are indicative estimates. They result from the reallocation of the amounts of individual disbursing funds to components or subcomponents of the workplan, to ensure comparability with the latter document

Table 15. Disbursements by expense category (in US\$, as of June 30, 2021)

	World Bank 12-month fiscal year (July-June)						
	FY21	FY20	FY19	FY18	FY17	Total	%
WAVES PLUS							
Technical work ^(a)	2,884,795	2,476,284	1,223,544	437,082	414,869	7,436,573	
of which							
Staff Costs	1,393,394	1,311,583	839,815	312,336	307,500	4,164,627	48%
Consultant Fees	1,491,401	1,164,702	383,729	124,746	107,369	3,271,946	38%
Travel expenses	3,028	189,414	260,757	133,994	150,255	737,448	9%
Media Workshop	13,937	87,491	88,805	17,827	62,407	270,466	3%
Contractual Services	5,939	30,369	16,077	3,600	335	56,320	1%
Other ^(b)	38,415	102,641	2,300	4,041	1,455	148,853	2%
Subtotal WAVES Plus	2,946,115	2,886,199	1,591,483	596,544	629,321	8,649,661	100%
GPS							
Technical work ^(a)	2,805,772	754,272	-	-	-	3,560,044	
of which							
Staff Costs	1,859,400	559,001	-	-	-	2,418,401	67%
Consultant Fees	946,372	195,271	-	-	-	1,141,643	32%
Travel expenses	0	30,550	-	-	-	30,550	1%
Media Workshop	10,550	2,355	-	-	-	12,905	0%
Contractual Services	0	-	-	-	-	0	0%
Other ^(b)	1,757	55	-	-	-	1,812	0%
Subtotal GPS	2,818,079	787,232	0	0	0	3,605,311	100%
Total WAVES Plus & GPS	5,764,194	3,673,431	1,591,483	596,545	629,321	12,254,972	100%

Source: My Trust Fund database, November 10, 2021.

Notes:

(a) including activities of program design, analysis, quality assurance, and so forth; carried out by staff in both headquarters and country offices.

(b) Translations, proofreading, transcriptions, courier/freight service, phone calls, printing, interpretation services, video conferencing, airfare rebate, equipment costs and ancillary expenses.



GPS is supported by:



Federal Ministry
for Economic Cooperation
and Development



Government of the Netherlands



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



Department
for Environment
Food & Rural Affairs