



THE GLOBAL PARTNERSHIP ON

# Wealth Accounting and the Valuation of Ecosystem Services



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## Contents

Executive Summary	3
The Challenge	7
Progress and Achievements	13
Policy and Technical Expert Committee	30
Working as a Partnership	32
WAVES Multidonor Trust Fund	35
Communicating Natural Capital Accounting	37
The Road Ahead	43
 ANNEX A	
Membership List of the Policy and Technical Expert Committee	47
 ANNEX B	
Financial Information	48
 ANNEX C	
Signatories to the Natural Capital Accounting at Rio+20, August 2012	49
 ANNEX D	
Natural Capital Accounting Communiqué for Governments	51





## Executive Summary



At the end of its second year, the WAVES program—the global partnership on Wealth Accounting and the Valuation of Ecosystem Services—has made good progress on all of its goals.

### MAINSTREAMING NATURAL CAPITAL ACCOUNTING

The five WAVES partner countries—Botswana, Colombia, Costa Rica, Madagascar, and the Philippines—have completed their preparation phase activities: establishing National Steering Committees, extensive multistakeholder consultations, detailed scoping studies to diagnose their readiness and policy priorities for natural capital accounting (NCA), and the design of four-year work plans to implement NCA.

WAVES countries are now starting to implement their work plans. Botswana already has preliminary water accounts for 2010–2011, updating water accounts done in the 1990s. Country coordinators have been hired in most countries, and they will be key in driving forward the NCA implementation plan. There has been a strong emphasis over the past year on building broad institutional support and the right institutional framework to ensure long-term sustainability of NCA in WAVES countries. Many of these countries have tried NCA in the past or already have programs, and they are keen to take a new approach.

### BUILDING A COMMUNITY OF PRACTICE THROUGH OUTREACH AND ENGAGEMENT

#### Reaching out to other countries at Rio+20

Rio+20, the United Nations Conference on Sustainable Development held in 2012, helped move NCA to the top of the global agenda—62 countries and 90 private sector organizations expressed

their support for natural capital accounting—in a campaign led by the World Bank. Meeting requests from this new set of countries and organizations will require a coordinated effort by the World Bank, U.N. agencies, regional development banks, bilateral donors, civil society organizations, and others. Following up on this strong endorsement at Rio+20, a Global Action Plan has been drafted in consultation with key partners. The International Finance Corporation is in the process of setting up a Natural Capital Program that will work with the private sector to help companies incorporate the value of natural capital into their business operations.

### **Fostering South-South learning**

To meet this growing demand for NCA, the Global Partnership is building South-South learning into the program. This has already begun, for example, in Latin America, where experts from Guatemala and Colombia are sharing with the rest of the region their knowledge and experience in training workshops on how to construct these accounts.

### **Implementing NCA through outreach within the World Bank Group**

WAVES provides technical support to other countries through related programs and funding instruments within the World Bank Group. In Vietnam, WAVES is collaborating with WWF and Statistics Netherlands. In India, work on forest accounts is part of the Development Policy Operation—Promoting Inclusive Green Growth for Sustainable Development—with the state of Himachal Pradesh. WAVES is also in discussions with Ghana and Gabon about mainstreaming NCA into upcoming World Bank operations for technical assistance there.

Within the World Bank, NCA is gaining increasing traction in both the Sustainable Development Network and the Poverty Reduction and Economic Management network. Management of mineral and energy resources for sustainable development has been a priority in World Bank work for Ghana, Liberia, Sierra Leone, Sudan and South Sudan, Mozambique, and the countries of Europe and Central Asia.

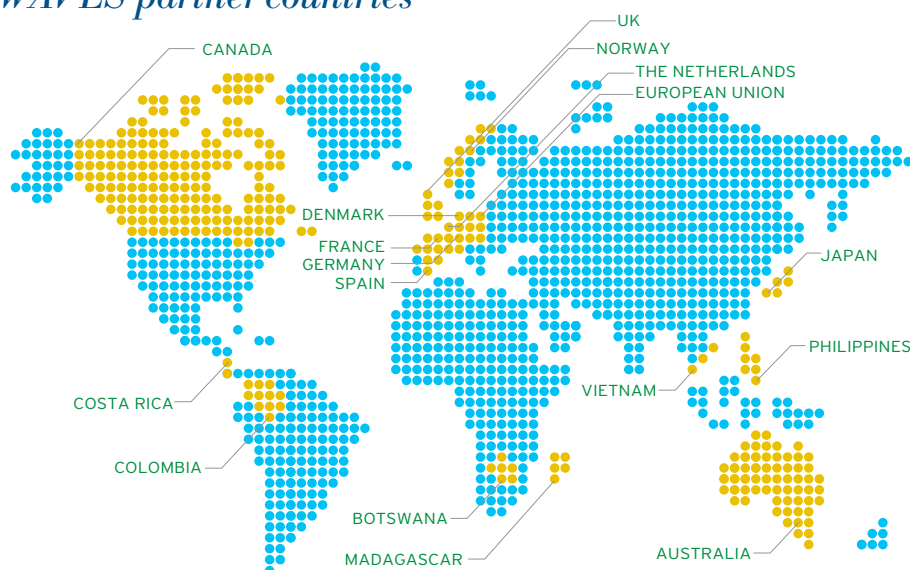
### **Establishing a communications strategy for NCA**

The WAVES program is guided and supported by a strong communications strategy that aims to promote natural capital accounting globally. A partnership website, newsletter, country case studies, and the use of social media are helping guide the global dialogue on NCA and building evidence on how it can be useful for countries.

## **DEVELOPING METHODOLOGY FOR ECOSYSTEM ACCOUNTING**

The inaugural meeting of the Policy and Technical Experts Committee (PTEC) took place in November 2012, with participation by global experts from environmental economics, the natural sciences, statistics, and policy. PTEC drafted a three-pronged collaborative work program to test out methodology for ecosystem accounting in several sites (Peru is the first case study, led by Conservation International), compile the body of evidence about policy

## *WAVES partner countries*



applications of NCA, and continue to actively participate in the process of extending the System for Environmental-Economic Accounting (SEEA) for ecosystems.

### **Offering training and capacity building in the regions**

PTEC is also developing training materials for NCA, beginning with the development of a diagnostic tool for the SEEA that will provide a systematic approach for countries wanting to introduce NCA or to evaluate their current NCA work. A coordinated approach to develop comprehensive training materials over the next few years, including e-training courses, is under discussion with WAVES partners.

To reach out to a large number of environmental economics professionals from developing countries, WAVES participated in the meeting of the Environment for Development Initiative in Costa Rica and plans to engage regional associations of environmental economists, such as the Latin American and Caribbean Environmental Economics Program and the Economy and Environment Program for Southeast Asia.

## **MOBILIZING RESOURCES THROUGH A MULTI-DONOR TRUST FUND**

Fundraising efforts have been very successful so far. In addition to the “founding donors”—the United Kingdom, Norway, Japan, and France—substantial contributions were received from the Netherlands, the European Community, Denmark, and Germany, for over \$19 million. This funding supports activities in the five WAVES countries, but more funding is needed to follow through on the Global Action Plan for NCA and to support the countries looking for technical and financial support after Rio+20.







## The Challenge



Countries have long kept a close watch on their national income accounts to evaluate economic performance and assess the effectiveness of their development policies and plans. Yet conventional indicators based on national income accounts such as gross domestic product (GDP) can be misleading because they say nothing about whether growth is sustainable. Countries can grow in the short term by running down their assets, including natural capital assets such as forests, minerals, and water. But such growth cannot be maintained over the long term.

It is in a country's interest to keep an eye on both its national income and (its) assets including natural capital. By fully accounting for minerals and energy, fisheries, water, forests, and ecosystems, governments can provide more-accurate information to policy makers. This can lead to better economic decisions about development priorities and investments. This is especially important for developing countries where economic activity and livelihoods, particularly of the poor, critically depend on natural capital.

There is now internationally agreed methodology to account for all natural resources and pollution: the 2012 System of Environmental and Economic Accounting Central Framework (SEEA-CF) of the UN Statistical Commission. Work to extend methodology for ecosystems is underway and current best practice is reported in part 2 of the SEEA Experimental Ecosystem Accounting.

## THE WAVES PARTNERSHIP

To support countries with the move to natural capital accounting (NCA), the World Bank initiated a partnership called WAVES—Wealth Accounting and the Valuation of Ecosystem Services—that includes several U.N. agencies, national governments, nongovernmental organizations (NGOs), and academic and other institutions.

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All partners share a common vision of a world where valuing the environment leads to better decisions for development.

WAVES works as a global partnership led by the World Bank. It includes developing countries—Botswana, Colombia, Costa Rica, Madagascar, and the Philippines—that are working to establish natural capital accounts. It also includes donor and participating industrialized countries like Australia, Canada, Denmark, France, Japan, Norway, Spain, and the United Kingdom that are already exploring natural capital accounting and have valuable lessons to share. U.N. agencies—the U.N. Environment Programme (UNEP), the U.N. Development Programme (UNDP), and the U.N. Statistics Division—are helping to implement environmental accounting in countries and review scientific evidence and methods.

The first priority of WAVES is to implement the SEEA-CF and use these internationally recognized methods to inform public policy. The second is to help develop an agreed methodology for measuring ecosystem services. Some countries are ahead of the learning curve and are interested in sharing lessons—for example, Australia, a veteran in water accounts, has offered to guide Botswana.

All partners share a common vision of a world where valuing the environment leads to better decisions for development. The partnership will a community of practice that shares experiences and expertise and raises awareness of the importance of natural capital accounting in moving toward more-inclusive and green growth.

## WAVES OBJECTIVES

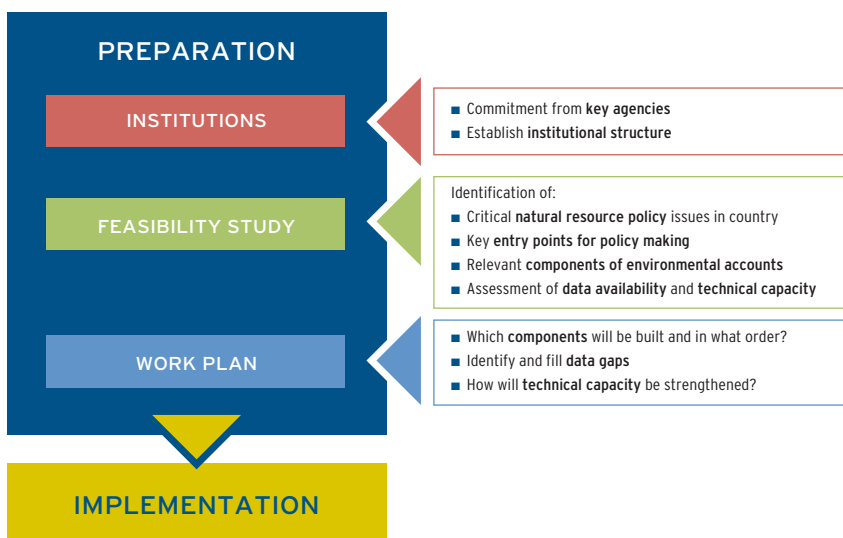
The WAVES partnership design is based on the experience and feedback from countries that have been experimenting with natural capital accounting for over 20 years. Their experience helped refine the SEEA methodology while highlighting areas where interventions could help countries the most.

Key objectives include the following:

***Demonstrate policy links:*** In WAVES partner countries, the primary aim is to link policy with natural capital accounts. In every country, work begins with identifying the most pressing policy questions and relevant sectors. National Steering Committees are critical to ensuring that these accounts are used to support better strategic decision making.



## WAVES Country Roadmap for Implementation



**Compile a body of evidence:** A WAVES Policy and Technical Experts Committee (PTEC) leverages knowledge and experiences from all partners. The committee is compiling a body of evidence about the policy uses of natural capital accounts.

**Communicate what works:** WAVES has a strong communications component that aims to promote natural capital accounting globally. The partnership will develop training materials, support a web-based knowledge portal, and engage in the global dialogue about environmental accounting.

**Work on the next set of methodologies for SEEA:** The SEEA's Central Framework approved in 2012 covers the relatively easy-to-measure natural resources and pollution in natural capital. The UN Statistical Commission has agreed to a process toward development of similar standards for ecosystems and other natural assets. The WAVES partnership will play a key role in developing the monetary component of the accounts and will ensure that this work feeds into the next phase of SEEA.

**Provide capacity building and training:** WAVES provides intensive technical support to its implementing partners and is developing a knowledge portal to facilitate training and knowledge sharing between countries.





## THE WAVES APPROACH

Countries have many different reasons for undertaking natural capital accounting and a range of policy applications. This highlights the need for a road map to assist countries wanting to undertake NCA. WAVES has designed a step-by-step process for implementation:

***Build institutional ownership:*** Partner countries begin by establishing an institutional structure with strong commitments from the national government and clear lines of responsibility across government departments. Experience has shown that this effort is most successful if led by a user of the information with a broad mandate—for example, a ministry of planning, development, or finance. A lead agency as a champion is key to building support across the government. The WAVES partnership works closely with the agency responsible for compiling national income accounts.

***Build political will:*** In many countries, a decree, executive order, or law mandating natural capital accounting may be necessary to ensure continuity over the long term. WAVES helps countries design and develop strategies for building political buy-in.

***Assess policy entry points:*** Implementation is most successful when focused on critical natural resource issues and key policy entry points for a given country. When natural capital accounting can be shown to make a difference for development policy, the effort is likely to be sustained. National development plans and annual budget discussions can help identify key policy entry points.

***Design a work plan:*** Having identified the key policy entry points, a country can begin charting an implementation plan. It is not necessary to compile all natural capital accounts at once. Countries can start with those that are most policy-relevant and technically feasible.

***Mainstream into economic policy:*** The work does not stop at compiling accounts. It is important to use the information generated by these accounts to inform the policy debate. Communicating results among policy makers, the private sector, and civil society, among other stakeholders, helps deepen the impact of these accounts.





## Progress and Achievements



The WAVES partnership has established a global community of practice to support implementation of NCA, bringing together a broad coalition of developing and industrialized countries, U.N. agencies, civil society organizations (CSOs), companies, and academics.

WAVES is building the institutions needed for successful implementation of NCA in five partner countries: Botswana, Colombia, Costa Rica, Madagascar, and the Philippines. High-level national steering committees to guide NCA have been established in each country and are chaired by a ministry of planning or equivalent. A process of multistakeholder consultations and feasibility studies has developed detailed four-year work plans connecting NCA to specific policy issues in each country. Implementation of these work plans is under way in most countries.

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**62 countries, 90 private sector entities, and 17 CSOs and international organizations indicated their support for implementing NCA.**

The United Nations Conference on Sustainable Development (Rio+20) in June 2012 marked a watershed in worldwide interest in NCA. The World Bank initiated the 50:50 NCA campaign, inviting public and private sectors to join forces and take collective action in support of NCA. The response was overwhelming: 62 countries, 90 private sector entities, and 17 CSOs and international organizations indicated their support for implementing NCA.

Some of the 62 countries that signed on in Rio have already started implementing NCA; others are just starting out. To scale up support to more countries, the partnership has developed an NCA Global Action Plan. As a first step, regional workshops will be conducted to provide countries with detailed guidelines on how to begin implementation. The first workshop was held in the Middle East and North Africa (MENA) Region; others are planned for the Latin America and Caribbean (LAC) and Africa Regions during this fiscal year. A diagnostic tool is being developed to help countries identify data gaps before they develop work plans for NCA.

NCA is being mainstreamed in World Bank operations in Ghana, India, Morocco, and Vietnam by linking them to existing programs on statistical capacity building as well as green growth development policy loans.

The Policy and Technical Experts Committee has begun to develop a methodology for ecosystem accounting and to compile policy applications of NCA. WAVES is working with partners like Conservation International (CI), The Nature Conservancy, and WWF to pilot and test methodologies for ecosystem accounts in Peru, India, and Vietnam. A communications strategy has been developed to build a constituency for NCA globally.





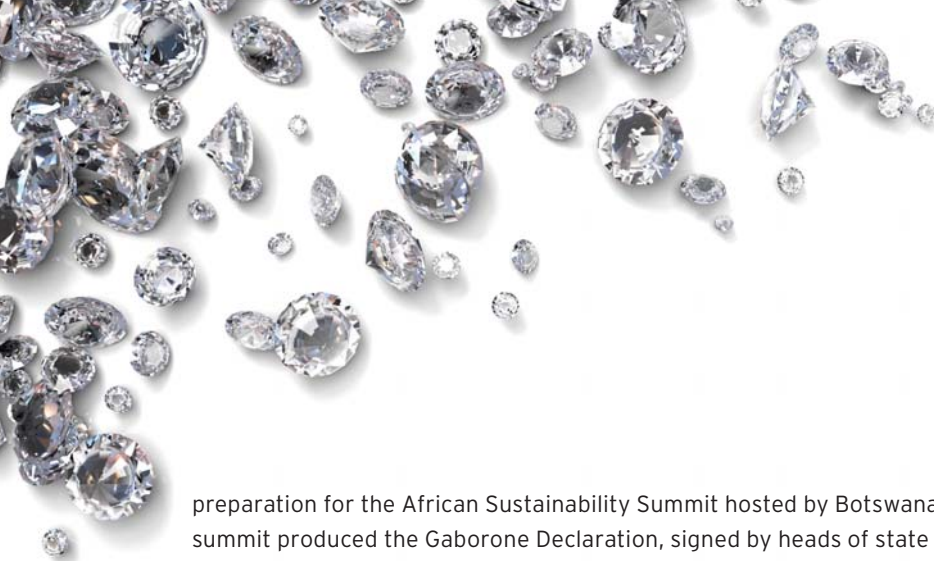
# Botswana



Botswana was one of the first counties to pilot natural capital accounting in the 1990s and early 2000s under the Natural Resource Accounting Programme of the Department of Environmental Affairs.

WAVES first engaged with the government of Botswana in July 2011 through a series of discussions and a workshop with key government officials, after which an official request to join WAVES was issued by the Ministry of Finance and Development Planning (MFDP). The preparation phase to join the WAVES program commenced with a scoping-out study and an extensive process of broad stakeholder consultations through workshops and individual meetings in order to develop options for a detailed work plan. The scoping out study was submitted to the WAVES Steering Committee, and a final version was approved in March 2012. The options for a WAVES four-year work plan were presented at a large multistakeholder workshop in January 2012, discussed with Steering Committee members, and approved by the Steering Committee in March 2012 along with a draft budget.

Upon request from Botswana President Ian Khama, the World Bank gave a presentation on natural capital accounting to the Botswana Economic Advisory Council (BEAC) in



preparation for the African Sustainability Summit hosted by Botswana in May 2012. The summit produced the Gaborone Declaration, signed by heads of state or senior ministers from 10 African countries, which became the basis for the World Bank's 50:50 campaign launched at the Rio+20 Summit in 2012.

BEAC expressed strong support for the WAVES work program, and President Khama directed WAVES-Botswana to provide updated water accounts at the November 2012 BEAC meeting. (See Box 1.) WAVES-Botswana will now provide regular progress reports as part of the package of briefing materials for the biannual BEAC meetings, chaired by President Khama.

### Management

WAVES is led by the Ministry of Finance and Development Planning, where the Deputy Permanent Secretary for Macroeconomic Policy chairs the WAVES National Steering Committee. Other members of the Steering Committee include Deputy Permanent Secretaries from the Ministry of Environment, Wildlife and Tourism (Department of Environmental Affairs); the Department of Mines, Energy and Water Resources (all departments); and similarly ranked staff from the National Strategy Office and Statistics Botswana. The UNDP-UNEP Poverty Environment initiative, which is engaged with related work with the MFDP, has also been asked to join the Steering Committee.

The terms of reference were written and approved for the Steering Committee. The Steering Committee meets twice a year, one month before the BEAC's biannual meetings,

in order to approve the biannual progress report on WAVES to BEAC.

The technical work for WAVES is directly overseen by Working Groups established by, and reporting to, the Steering Committee. A Water Accounting Working Group was established in September 2012, chaired by the Deputy Permanent Secretary for Water Affairs. Other working groups will be established as the remainder of the work plan is rolled out.

The government of Botswana has always been keenly aware that in the long term it must use revenues from diamonds, a nonrenewable resource, to diversify the economy.



## BOX 1: *Botswana Water Accounts*

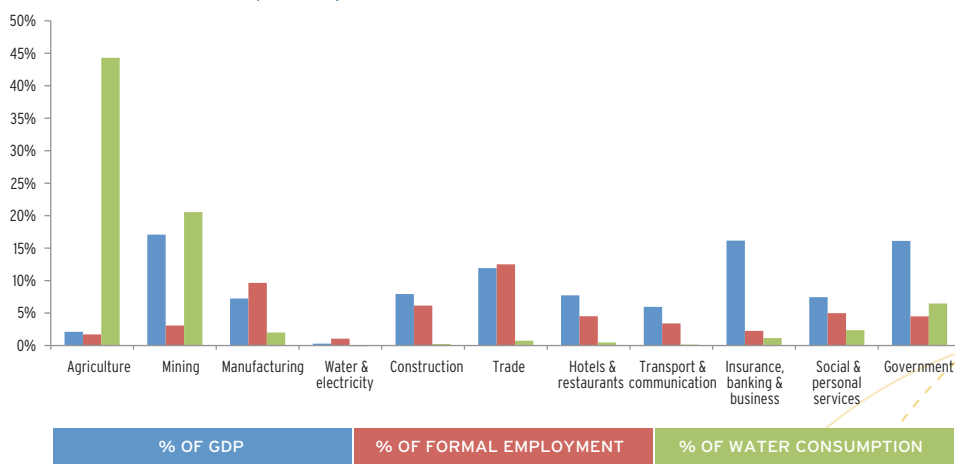
Botswana, a WAVES partner country, presented the first phase of its water accounts in November 2012. The country has relied on diamonds for economic growth for a long time and is now looking to other sectors to provide a new growth model. One possible limiting factor is water, a scarce resource. Water accounts help the government identify which sectors are less water-intensive and can be targeted for growth, opportunities to increase water efficiency, and options for decoupling growth from water consumption. Some of the main findings include:

- Botswana has increased its water use efficiency but needs to stimulate more-efficient water allocation to boost economic growth and diversification. Both the irrigation and mining sector

should use water more efficiently and maximize the use of treated wastewater.

- GDP contributions per unit of water vary greatly by sector. Agriculture has high water consumption but low contribution to both GDP and formal employment. The service sectors use little water but make relatively high contributions to GDP and employment.
- Sectoral water efficiency should be considered as one of the factors in targeting sectors to drive economic growth and diversification.
- The operating costs of water supply are growing to the point of exceeding revenues. The situation will become unsustainable if it follows the current trajectory.

### *Sectors: share in GDP, formal employment and water use (2011)*



## Objectives

The government of Botswana has always been keenly aware that in the long term it must use revenues from diamonds, a nonrenewable resource, to diversify the economy. The overarching development objectives, highlighted in both the medium-term NDP10 and the long-term Vision 2016 strategy, stress the need for economic diversification to develop new sources of economic growth, job creation, and poverty eradication. Optimizing natural capital is a key element in achieving these goals. Several natural-capital-based sectors have been targeted for a leading role including ecotourism, expanded mining activities and irrigated agriculture, while scarce water and energy resources are potential constraints that require careful management.

To support policy dialogue on these issues, Botswana's natural capital accounts will include:

- **Water Accounts:** Accounting for the supply and uses of water can lead to programs that support the efficient use of this scarce resource through integrated water resource management and water sector reform.
- **Land and Ecosystem Accounts,** with a particular focus on tourism: Protected areas account for 40 percent of Botswana's land area. Accounts can help influence the benefits of tourism reaching local communities and can balance land usage for tourism, commercial and subsistence agriculture, and other ecosystem services like groundwater recharge.
- **Mineral and Energy Accounts:** In addition to diamonds, Botswana possesses other mineral deposits, particularly coal, that could be developed for export or to alleviate regional energy shortages.
- **Macroeconomic Indicators of Sustainable Development:** Using the SEEA methodology approved by the UN Statistical Commission, Botswana will develop indicators for natural capital and changes to natural capital (depletion/additions), including adjusted net national income, adjusted savings, and national wealth accounts with natural capital. These indicators will help inform the discussion about a new fiscal rule for managing mineral revenues.

## Progress and Next Steps

During the first year of implementation, WAVES-Botswana focused on water accounting based on direction from BEAC. The highest levels of government supported this work that yielded impressive results. Implementation of the rest of the work plan will begin in the coming year with a newly constituted Steering Committee and a country coordinator.





# Colombia

Watersheds in the Colombian mountains provide important ecosystem services. For instance, they provide the basis for crops, livestock, and wood fuel, as well as fish production and water supply. In addition, healthy watersheds prevent erosion and regulate flooding. They are the source of water for downstream urban areas, but they rely on the conservation of the mountain forests and other ecosystems that guarantee water availability.

Colombia has already introduced stock accounts for energy and mineral resources as well as expenditure accounts for environmental protection, and it has also made some progress toward undertaking renewable resource accounting (water, forest, and liquid, gas, and solid waste). The WAVES program in Colombia will build on existing work, bring together all stakeholders, and work toward ecosystem accounting at the watershed level contributing to public policy.

## Management

The WAVES Colombia National Steering Committee includes the National Planning Department (DNP); National Statistics Office (DANE); Ministry of Environment and Sustainable Development; Institute of Hydrology, Meteorology and Environmental Studies; and the Office of the Comptroller General. The Committee is responsible for

developing the work plan and budget for WAVES implementation. It is supported by a Technical Committee.

The lead agency for WAVES in Colombia is the DNP. Building on earlier efforts to develop environmental accounts by DANE, and in coordination with the other members of the Steering and Technical Committees, DNP is leading the WAVES implementation process in the country.

### Objective

WAVES in Colombia aims to build on existing work on environmental accounting in order to inform policy making in critical policy areas identified by the Technical Committee. Priority accounts, as determined by the Technical Committee, are on water and forestry, focusing in particular on three selected pilot watersheds.

### Progress and Next Steps

In June 2012, the government of Colombia joined the World Bank's 50:50 Call to Action for the implementation of natural capital accounting and endorsed the Communiqué on Natural Capital Accounting for Rio+20.

Watersheds rely on the conservation of the mountain forests and other ecosystems that guarantee water availability.

In November 2012, DANE organized a workshop on national accounts and environmental satellite accounts in Colombia. The WAVES Technical Committee participated in this workshop, which provided the Committee with critical information on the background, methodologies, status, and available information on these accounts in Colombia.

Following this workshop, the WAVES Technical Committee was convened in January 2013 to review the WAVES Policy Document and final draft of the Work Plan and Budget. The Committee made significant progress on the technical, policy, and institutional aspects of the WAVES Policy Document and the Work Plan and Budget and agreed on priority accounts for the work plan.

Colombia's next step will be a national stakeholder workshop in early April 2013, organized by the DNP with support from the Steering Committee and the World Bank. The proposed WAVES program in Colombia will be presented to a broad range of stakeholders from national and local government agencies (including from the areas of the pilot watersheds), research institutes, academia, and NGOs.



# Costa Rica



Costa Rica has had a number of achievements in protecting and managing its natural resources. Now as a pilot country in the WAVES Global Partnership Program, the country would like to develop a clear strategy on how to accelerate economic growth through the sustainable use of its natural capital wealth.

The country pegs its future development on the growth of tourism, the conservation of forests, the greening of leading industries (like electronics, medical instruments, and nontraditional export agribusiness) and renewable energy investments, and the consolidation of a low-carbon growth path (toward Carbon Neutrality) for 2021.

As increasing urbanization, demand for energy, and agricultural growth generate pressure on natural resources, Costa Rica is at a crucial moment in building the foundations of green growth. Promoting sustainable development requires the sound knowledge of the main sources of national wealth and economic growth, particularly the value of the country's natural capital.

Policy makers need more and better information about the alternative uses of land, the economic implications of water resources degradation, the value of services provided by



## WAVES will help improve the analytical and decision-making tools for green growth in Costa Rica.

use of natural resources for national policy planning. WAVES will also expand available information and indicators to monitor the progress of specific policy actions at regional or national levels. In this way, WAVES will help improve the analytical and decision-making tools for green growth in Costa Rica.

### Management

WAVES Costa Rica will be led by a Steering committee consisting of the Ministry of Environment and Energy (MINA), the Central Bank of Costa Rica (BCCR), and the National Institute for Statistics and Census. The committee will provide overall strategic direction and leadership in the coordination and implementation of the project. With support from the country coordinator, the MINA will also regularly monitor, report, and coordinate policy dialogue and long-term planning with relevant stakeholders within and outside of the government, including academia, civil society, and the private sector.

In order to be successful, ecosystem accounts under WAVES should have well-defined policy entry points and full ownership and support from the Central Bank, the lead agency in charge of Costa Rica's national income accounts.

### Objectives

In particular, WAVES will support the construction of asset accounts for water and forest resources; promote the valuation of natural capital, ecosystem services, and the integrated economic-environmental accounting to generate accurate information on the current use of natural resources for national policy planning; and expand available information and indicators to monitor the progress of specific policy actions. Through these actions, WAVES will contribute to establishing better analytical and decision-making tools for sustainable development planning in Costa Rica.

Outcomes will include a water resources account to organize the hydrological and economic information of the country in a coherent and consistent framework and forest accounts that incorporate physical and monetary values of ecosystem services to inform policy decisions on forest management (including the REDD+ Strategy).

ecosystems for leading industries like tourism, and the effectiveness of different policy instruments for sustainable management of natural resources.

Participation in WAVES is expected to promote the valuation of natural capital, ecosystem services, and integrated economic-environmental accounting to generate accurate information on the current





*Ana Lorena Guevara, Vice Minister, Ministry of Environment, Costa Rica, speaking at a WAVES workshop held in May 2012 in San Jose*

### Progress and Next Steps

The Steering Committee was formalized in April 2012; national consultative workshops held in December 2011 and May 2012 were attended by over 100 participants from the Ministries of Environment, Planning, and Tourism, from the Central Bank, and from academia and NGOs.

A series of technical studies and workshops helped define the policy questions and methodology for WAVES to follow in Costa Rica.

In preparing the feasibility study, the Philippines experience with natural capital accounting was reviewed; an assessment was made of the current capacity and institutional support for SEEA; and the feasibility of constructing natural capital accounts for minerals, soils, land, water, forests, fisheries, and coastal and marine resources was assessed. Workshops and meetings complemented these efforts with officials in the areas of policy, planning, and statistics in order to identify policy priorities.

The resulting technical Feasibility Study and Policy Entry Points Report identified five priority sectors for accounts (water, forests, marine resources, tourism, and energy) and areas where WAVES can contribute or add value to existing national policies and strategies.

In late November 2012, a delegation from Costa Rica that included representatives from MINAE, the Instituto Nacional de Estadística y Censos, and the Instituto Costarricense de Acueductos y Alcantarillados participated in a workshop in Peru on water accounts organized by the United Nations.

A Memorandum of Understanding (Carta de Entendimiento) has been agreed to by MINAE and BCCR, the two leading agencies. Additionally, a Concept Note for WAVES Costa Rica is currently being drafted, and a country coordinator is being recruited.



# Madagascar



Madagascar is rich in natural resources. But with a predominantly poor, rural population, Madagascar is an ideal country in which to use natural capital and ecosystem service accounting methods to shape policy and planning. There are currently no quantitative analyses of the scale of the country's natural capital wealth and virtually no integration of the economic values of natural capital in the policy framework.

WAVES Madagascar seeks to establish a range of tools to address this situation and allow the economic value of selected natural resources to be integrated into analysis and monitoring of macroeconomic performance, as well as into decisions and policy making related to natural resource management.

## Management

In May 2012 the government issued a decree to establish a national WAVES Steering Committee with over 20 representatives from the government, the private sector, and civil society that will provide strategic guidance on WAVES activities. The Steering Committee, in partnership with the WAVES Global Partnership Secretariat, will be responsible for overseeing implementation of activities in Madagascar. It is chaired by the Secretary-General of the Ministry of Economy and Industry and co-chaired by



Conservation International. The Committee includes representatives from sector-line ministries (water, environment, fisheries, mines, forests, and coastal zone management) and the private sector (the Chamber of Mines, tourism organizations, and enterprise bodies). Technical Working Groups have been established by the Steering Committee to provide guidance and support to activities in different thematic work areas.

A WAVES country coordinator has been recruited by the government to act as its focal point and as liaison for WAVES Madagascar. The country coordinator will provide secretariat and support services to the Steering Committee and the Technical Working Groups and will liaise closely with the World Bank technical assistance team in the day-to-day management of WAVES activities.

### Objective

The objective of WAVES Madagascar is to “strengthen the capacity to manage Madagascar’s natural capital and promote sustainable development.” Plans to meet this objective include:

- Improving the availability of data on the physical and monetary values of ecosystem services and natural capital in four priority sectors (mining, water resources, protected areas/forests, and coastal resources)
- Facilitating the development of complementary macroeconomic indicators that reflect selected ecosystem service and natural capital values.

The government will use the generated data for decision making and policy related to several priority policy linkages: improvement of the policy framework in the large-scale mining sector in relation to rent capture, distribution, and reinvestment; national policy and basin plans that integrate principles of integrated water resources management; and improved policy for sustainable financing of the national protected area network.

### Progress and Next Steps

There has been considerable progress in WAVES activities in Madagascar over the past year. The government’s decree on the Steering Committee, combined with the earlier Cabinet endorsement of Madagascar’s involvement as a WAVES partner and the commitment of \$500,000 in co-financing, indicated the strong support that WAVES has garnered at the highest levels of government.

In June 2012, the government joined the Bank’s 50:50 Call to Action for the implementation of natural capital accounting and endorsed the Gaborone Declaration and Communiqué that arose from the Summit for Sustainability in Africa.

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## The objective of WAVES Madagascar is to “strengthen the capacity to manage Madagascar’s natural capital and promote sustainable development.”

The first formal meeting of the Steering Committee was held in August 2012, during which the work plan for WAVES activities was validated. The first technical studies, focusing on the creation of natural capital accounts related to the mining, forestry, and water sectors, have been scoped out. An international environmental accounting specialist is commencing work in April 2013 to provide technical support and training for the Steering Committee and national counterparts for accounts development in these sectors. The specialist’s first task will be to work with counterparts to identify clear and tangible links between desired policy outcomes and natural capital accounts and to assist in a series of sector-specific road maps to guide technical and policy activities over the next several years. This will be followed by data collection and initial account preparation. The specialist will also provide comprehensive hands-on training for national counterparts in account development.

Priority technical activities in the following six months will include the continuation of work with the international environmental accounting specialist in the mining, water, and forestry sectors and development of satellite accounts for tourism in protected areas, which will commence later in 2013 to allow surveys to capture activity during the peak tourism season.





# Philippines

The Philippines was identified as one of the pilot countries for the WAVES Global Partnership Program for several reasons:

- There is high government demand for indicators, tools, and methodologies that will help determine the sustainable use of natural resources, inform policy analysis and planning, and support implementation and monitoring of its medium-term development plans and long-term visioning.
- A more sustainable use of natural resources could potentially have a large impact on growth through poverty reduction and lowered risks from natural disasters and climate change.
- The government has a high latent capacity in NCA from previous initiatives, while academic and private organizations have the necessary skills for ecosystems accounting.

## Management

The WAVES program in the Philippines will be led by the National Economic and Development Authority (NEDA), which will provide the overall strategic direction



through organizing and chairing the Steering Committee and providing leadership in the overall coordination and implementation of the project. With support from the country coordinator, NEDA will also lead the regular monitoring and reporting and will coordinate the policy dialogue and long-term planning by the Cabinet, Climate Change Commission, Department of Finance, Department of Budget and Management, and key sector agencies.

The National Statistical Coordination Board (NSCB) will be in charge of implementing UNSD's 2012 System of Environmental-Economic Accounting by constructing key macroeconomic indicators linked to comprehensive wealth accounting and by building national satellite accounts for minerals and mangroves.

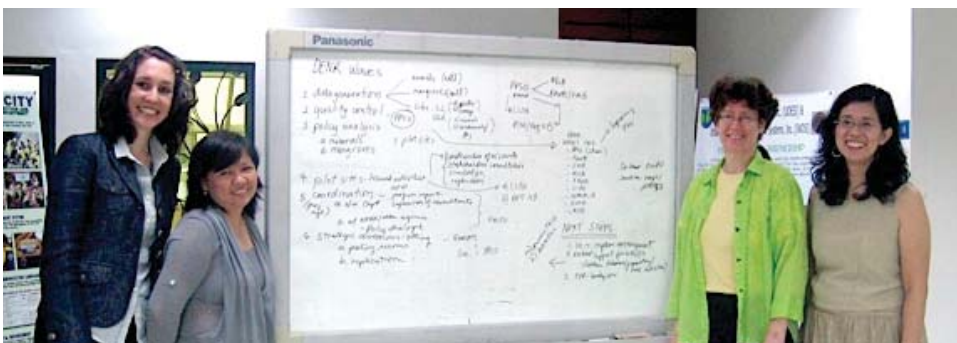
NSCB will also lead the effort with all relevant statistical and source agencies. The Department for Environment and Natural Resources (DENR) will lead the policy analysis for the minerals and mangroves national satellite accounts as well as the construction of the ecosystem account for Southern Palawan. The Laguna Lake Development Authority (LLDA) will lead the construction of the ecosystem account for the Laguna Lake Basin.

### Objective

The objective of WAVES here is to influence development planning and policy analysis to promote the sustainable use of key natural resources by:

- Developing macroeconomic indicators that account for natural capital values in order to measure the sustainability of economic development
- Developing national accounts for priority natural resources—minerals and mangroves—based on the 2012 SEEA and analyzing the impact of different natural resource management and revenue sharing scenarios on income and economic development





*The World Bank team with representatives from the Philippines Department of Environment and Natural Resources discussing the implementation plan for WAVES in March 2013.*

- Developing and constructing ecosystem accounts for Southern Palawan and the Laguna Lake basin and analyzing the trade-offs associated with different resource and ecosystem use scenarios
- Building capacity for institutionalization of the priority SEEA modules.

### Progress and Next Steps

During preparation, feasibility studies reviewed the past NCA experience in the Philippines and assessed the current capacity and institutional support for SEEA. In addition, the feasibility of NCA for minerals, soils, land, water, forests, fisheries, and coastal and marine resources was assessed. These efforts were complemented by workshops and meetings with officials from policy, planning, and statistics offices to identify policy priorities.

Out of a long list of potential policy issues, minerals, mangroves, and water resources were identified as priorities for the WAVES pilot in the Philippines. The main reasons for this selection were the urgent need of policy inputs, the potential of high impacts on poverty and economic growth, and complementarity with other World Bank, government, and development partner initiatives.

The work plan for the WAVES project in the Philippines has been reviewed by the national steering committee and the institutional arrangements for lead agencies in the steering committee are being finalized. This includes finalizing budgetary and staff allocations of all key government agencies as well as the hiring process for the country coordinator and other supporting consultants to be financed by WAVES. The detailed work plan and terms of reference for the activities to be implemented in the first 18 months—the compilation of the mineral account and the ecosystem accounts in Southern Palawan and the Laguna Lake basin—are also being drafted.

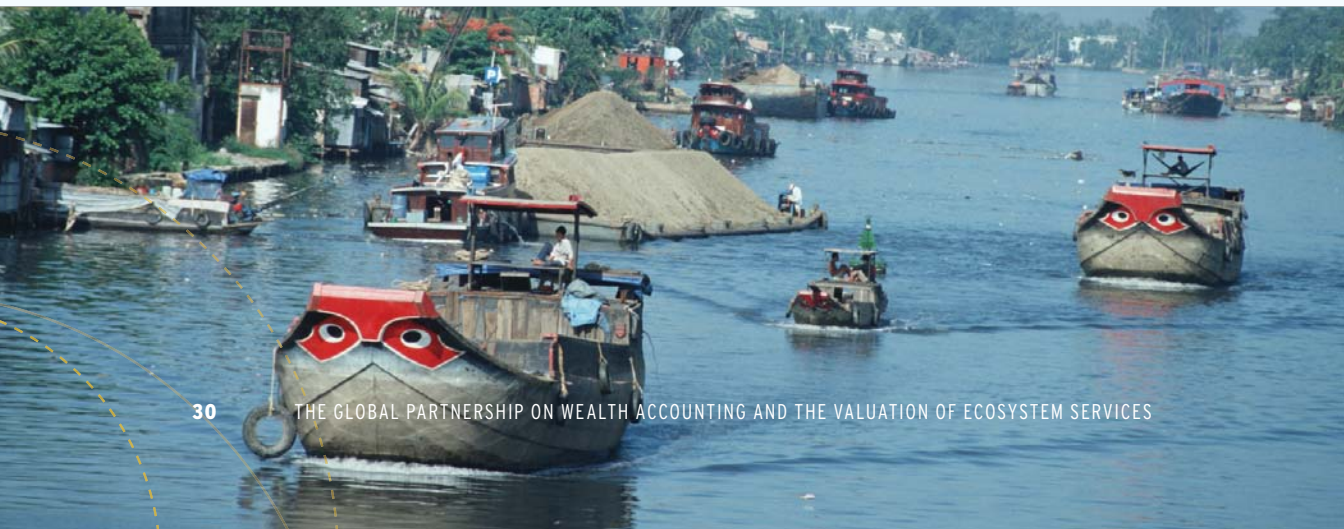
## Policy and Technical Expert Committee

Established in August 2012, the Policy and Technical Expert Committee's role is to guide the development and implementation of scientifically credible methodologies for ecosystem accounting, identify opportunities to contribute to policy and mainstreaming, and ensure cohesion, consistency, and scalability among the WAVES country studies.

The right mix of technical and policy experts maintains the policy relevance of PTEC's work. The committee consists of environmental economists, natural scientists, statisticians and policy experts (see Annex A for the list of PTEC members). The committee includes policy experts to work alongside the technical experts in order to ensure the policy relevance of technical work and to compile a body of case studies that demonstrates how environmental accounting contributes to policy and environmental management.

The first meeting of PTEC was held in Washington, DC in November 2012 to review PTEC's overall work plan. Members reconfirmed three broad objectives for the PTEC: development of methodologies for ecosystem accounting that have been tested and demonstrated at the country level; provision of inputs to the handbook for the SEEA, Vol. 2 on Ecosystem Accounting; and demonstration of policy applications through work in WAVES countries and evidence from other countries. Discussions also led to the identification of specific tasks for members, including their participation in a number of communications activities. Since the first meeting, working groups on methodology and policy have been established to further guide PTEC's work.

WAVES participated actively in the meeting organized by the London Group on Environmental Accounting, an organization that plays a leadership role in defining





international best practices in the theory and practice of environmental accounting within the framework of the System of Environmental-Economic Accounting.

PTEC has also collaborated on the identification of a test site for ecosystem valuation methodology comparison and a country diagnostic tool. The committee collaborated with Conservation International to find a test site for ecosystem accounting. (See Box 2.) It is also working with U.N. Statistics Division to develop a diagnostic tool to be used by countries to assess their current readiness for implementing the SEEA and to identify data and capacity needs for supporting implementation.

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## BOX 2: *Ecosystem Accounting with Conservation International*

One of the main mandates of PTEC is to help develop a methodology for ecosystem accounting. This requires designing, implementing, and evaluating field tests to assess which biophysical models of regulating services are best measures for these services, which economic valuation techniques are appropriate in what setting, and how site-specific studies can be scaled up to produce national-level accounts. This requires PTEC to identify ongoing efforts to model and measure ecosystem services to serve as case studies to test different approaches for ecosystem accounting. The recent agreement between PTEC and Conservation International to make the CI-led initiative Ecosystem Values Assessment & Accounting (EVA) one such case study is a welcome step.

EVA is an initiative to design and field-test a replicable and scalable framework for incorporating nature's value into decision making and for informing more-sustainable policies and practices. After a careful site selection process, the initiative has identified Peru as its test site, and the implementation

team is now the initial stages of designing the field test. PTEC has agreed to provide technical support on ecosystem accounting, ranging from advice on the scope of the exercise and identification of priority policies to be addressed to ecosystem services to be tested, data and methods for analysis, and interpretation of results and their implication for policies. EVA will:

- Provide information on the state and expected changes of relevant ecosystems, on biophysical and economic values of stocks and flows of ecosystem services, and on trends and thresholds in their provision
- Translate these values into information that can be used to inform policy and decisions, such as ecosystem accounting
- Identify key opportunities for supporting policies that incorporate this ecosystem services information into more-effective decision making and management for both the public and the private sector.

## Working as a Partnership

Partners have been an integral part of WAVES work. WAVES targets key government agencies such as planning, development, and finance ministries to establish an institutional framework for environmental accounting. CSO partners are involved in the extensive stakeholder consultation process that occurs at the country level to help develop the implementation plan for WAVES. In Madagascar, Conservation International (CI) is the co-chair of the national steering committee and has worked closely with the government to help set priorities for policy issues. CI carries out some of the technical work, such as valuation of a watershed.

WAVES is partnering with WWF and TNC to help develop accounts for mangroves based on an assessment of provisioning services but also coastal protection services, using the InVEST tool. TEEB for Business (The Economics of Ecosystems and Biodiversity) is working with the International Finance Corporation to define a work plan for helping the private sector incorporate the value of natural capital in their decisions.

With the World Resources Institute, the WAVES team is discussing work to update and improve the forest accounts in the World Bank's global database for comprehensive wealth.

UNEP is co-chair of the Policy and Technical Expert Committee and works closely on developing an ecosystems methodology. WAVES works with the UNDP-Poverty Environment Initiative in Botswana, as well as looking to collaborate on country Green Economy studies. And it works with U.N. Statistics Division on SEEA as well as on development of diagnostic tools that a country can use to assess its readiness for SEEA. Joint technical training workshops are already being planned for MENA, LAC, and Africa in collaboration with UNSD. (See Box 3 on work with the U.N. Statistics Division.)



CSO partners such as the International Institute for Environment and Development, GLOBE (Global Legislators Organisation), the International Union for Conservation of Nature, The Nature Conservancy, World Resources Institute, and WWF have participated in the two partnership meetings held in 2011 and 2012 in Washington, DC. GLOBE is developing a coordinated, parallel program to reach out to legislators to promote political

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### **BOX 3:** *Partnership with UNSD to Develop Tools to Help Countries Implement NCA*

One of the main objectives of WAVES is to help countries implement natural capital accounting where there are already internationally agreed standards, as in the SEEA Central Framework (SEEA-CF). The SEEA-CF, together with its subsystems (energy, water, land and ecosystem, fisheries, and agriculture), is a complex framework that requires supporting tools to be implemented consistently. The tools include:

- A diagnostic toolkit that will allow countries to determine if they have the capacity, data, and institutional arrangements to produce information consistent with the SEEA-CF
- Compilation guides that describes the steps and calculations required to produce data outputs
- Summary documents that describe the principles and basic components of the accounts for non-experts.

Countries interested in implementing the SEEA-CF are asking for these tools—and in

particular for the diagnostic toolkit—to get started on implementation of NCA. A similar diagnostic toolkit exists for the System of National Accounts, which countries use to assess the current quality of their national accounts and to identify gaps that need to be filled.

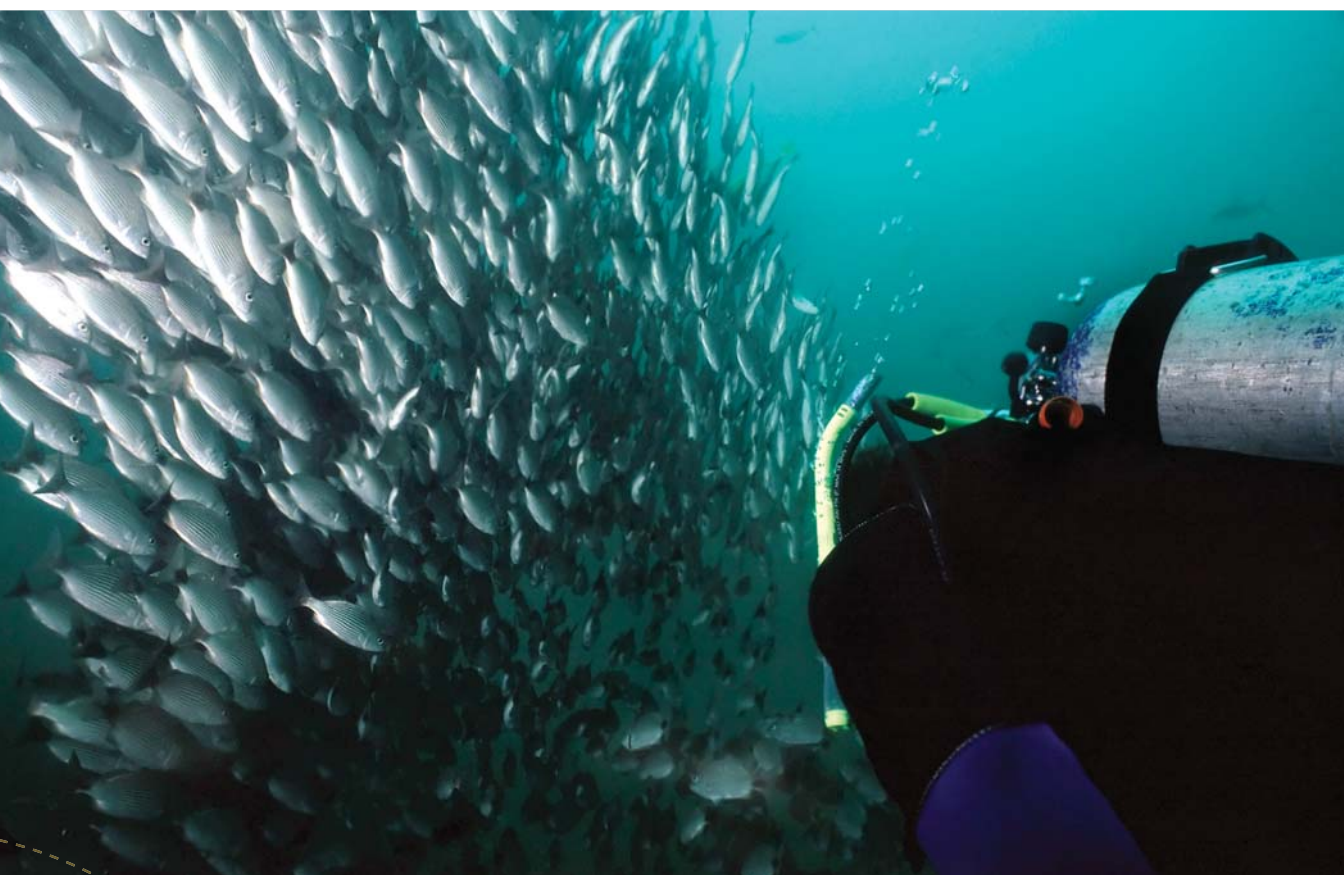
With WAVES support, the UNSD is leading the development of a diagnostic tool to support SEEA's flexible and modular implementation strategy. The first step focuses on strategic planning, guiding stakeholders in the selection of priority environmental-economic accounts by assessing their national priorities, engaging stakeholders, and documenting the knowledge already available. The second step is a detailed quality assessment of the data required to complete the selected SEEA accounts. Both steps will be presented for testing at two regional workshops, one for North African countries in Marseilles, hosted by the World Bank's Center for Mediterranean Integration, and the second for Latin American countries, hosted by Brazil and jointly sponsored by UNSD and the World Bank.



support, legal frameworks, and budgeting to ensure the long-term sustainability of the WAVES approach at the national level.

The PTEC committee draws on experts from various fields representing academia, U.N. agencies, government organizations, the Natural Capital Project, the Latin American and Caribbean Environmental Economics Program, and the South Asian Network for Development and Environmental Economics.

In another partnership, between the World Bank and the European Space Agency, a workshop is being organized to explore use of remote sensing data for assessment of ecosystem services.



## WAVES Multidonor Trust Fund

The majority of the donor pledges were signed and the initial contributions were received in FY13. Donor pledges totaled over \$19 million, and nearly \$9 million was received in contributions: from Norway (\$1.3 million), Germany (\$1 million), the Netherlands (\$1 million), Denmark (\$0.5 million), the European Commission (\$1.7 million), and Japan (\$1.6 million) and from the founding donors include UK, Norway and Japan—the United Kingdom (\$0.8 million) and France (\$1 million). The committed donor contributions for the last quarter of FY2013 are \$3.3 million and for FY2014 are \$2.7 million.

Disbursements for WAVES-financed activities in the first half of FY2013 totaled over \$1 million, an increase of over 50 percent from FY2012, as anticipated with the start of the WAVES implementation phase (See Table 1). In addition, over \$2 million has already been committed for planned deliverables in the country and global work programs.

The multidonor trust fund is divided into three windows to correspond to the WAVES work components: global work, country work, and recipient-executed work. The global

### TABLE 1: *Financial Overview*

*All amounts are shown in U.S. dollars (information as of 16 April, 2013)*

FINANCIAL SUMMARY	
Total Pledges (includes amendments)	19,493,571
Unpaid Pledge Balance Outstanding	10,058,333
Contribution Receipts	9,435,238
Other Receipts	16
Investment Income	10,135
Disbursements	1,221,207
Active and Pending Grant Commitments <sup>(1)</sup>	2,405,944
Unallocated Balance <sup>(2)</sup>	5,805,870

1) Total Balance of Active and Pending Grant Commitments is the total amounts yet to be disbursed for active and pending recipient executed grant agreements and the undisbursed balance of Bank executed trust funds.

2) Unallocated balance represents the sum of funds held (if any) at the Parent/Trustee trust fund level plus at the sub trust fund level. This effectively equates to the amount of funds held in the trust fund hierarchy but not yet physically transferred to the grant level trust funds. This figure is intended to be a proxy for the amount of funds not specifically allocated to grants, but the transaction has not yet been effected. Amounts represent balances expressed in USD equivalent as at the report date identified above.



## Donor pledges totaled over \$19 million, and nearly \$9 million was received in contributions

that disbursements and commitments of the newly received funds will pick up relatively quickly over the next fiscal year. With the support of World Bank management, the Secretariat has launched a program to respond to demand for NCA support outside of the five initial WAVES countries and will expand the WAVES Trust Fund, both by seeking additional contributions from WAVES's existing donor pool and by expanding the group of donors. (See Annex B for financial details.)

work window includes trust funds on methodology development, program management and administration, and global knowledge sharing. The country work window covers the work programs of the five current WAVES countries. The implementation phase of the country work plans is now in effect, and it is expected



# Communicating Natural Capital Accounting

A detailed communications plan has been drafted that aims to broaden understanding and interest in NCA and foster the community of practice.

The WAVES website was launched as a separate, stand-alone website in May 2012, reflecting the partnership approach of the initiative as it moved away from being housed within the World Bank's environment website. The launch proved hugely successful: the website received more than 22,000 page views in the first month as NCA and WAVES was in the limelight at the Rio+20 conference. Total page views by March 2013 are around 60,000.



The publication *Moving Beyond GDP* has been an easy but substantive read for WAVES audiences – it has been downloaded more than 1,100 times since its launch. During Rio+20, a coordinated social media strategy with our partners helped create momentum for the 50:50 NCA Initiative.



Since the beginning of 2013, WAVES has made an effort to capture its in-country work, and this has contributed to the increase in traffic. The site has experienced an increase of about 250 unique visitors per month in the last three months. A biweekly newsletter is being sent to more than 500 members of a growing community interested in NCA. The newsletter presents evidence on how NCA is working on the ground and shares news, publications, and latest events on natural capital accounting. Blogs and a Twitter feed help drive traffic to the website and leverage similar WAVES partners' work.



*Participants at the Second Annual Partnership meeting held in April 2012 in Washington D.C*

## IN-COUNTRY COMMUNICATIONS

Communications strategies are being developed in liaison with WAVES countries to support their program objectives. The broad objective of the strategy is to engage stakeholders as well as make the policy links to the accounting work. The country communications strategies will ensure that the process and the progress made by each country is showcased globally, thus adding to the global dialogue on NCA.

## PARTNERSHIP MEETINGS

Over 85 partners from NGOs, UN agencies (UNDP, UNEP, and UNSD), national governments (19 countries), and academic institutions attended the second meeting of the WAVES Partnership held 2-4 April 2012. The meeting was held just a month after the adoption of the Central Framework of the SEEA as a statistical standard by UNSD, and it provided an opportunity to celebrate this success. As with the first meeting of WAVES, this gathering brought together professionals from diverse backgrounds, such as economics, natural sciences, national accounting and statistics, policy, and government.

The meeting brought to close the preparatory phase (2011) of WAVES and initiated the Implementation Period (2012-2015). Its objectives were to share country experiences in implementing NCA so that countries could learn from each other; to strengthen and expand the partnership, including by sharing the WAVES communication strategy; and to discuss advances in ecosystem accounting methods and plans for the PTEC.

## MONITORING AND EVALUATION FRAMEWORK

The WAVES Monitoring and Evaluation (M&E) Framework enables the WAVES Secretariat and country teams to implement the global partnership and country work programs in line with a results-based management approach. It is designed to help implementing countries focus on performance and achievement of outputs, outcomes, and impacts. Some of the processes are complex and difficult to fully capture in a linear results chain, involving many different dimensions and stakeholders. Therefore, the WAVES M&E Framework additionally builds on recent applications of the theory of change in the M&E of related initiatives assisted by the U.K. Department for International Development, particularly the Poverty and Environment Initiative and the Ecosystems Services and Poverty Alleviation Research Program. The traditionally linear, results-based management approach is augmented to allow for dynamism—addressing multiple dimensions, including the monitoring of various actors, and allowing for feedback. (A draft M&E Framework is under review.)



*Rachel Kyte, Vice President for Sustainable Development, the World Bank speaking at the U.N Conference on Sustainable Development (Rio+20) in June 2012.*



## THE 50:50 NCA INITIATIVE

The Rio+20 conference marked a watershed in interest on NCA: 62 countries and 90 private companies joined forces behind the move to factor the value of natural assets like clean air, clean water, forests, and other ecosystems into business decision making and systems of national accounting. (See Annex D for the list of signatories.)

They supported a communiqué that calls on governments, the U.N. system, international financial institutions, and other international organizations to strengthen the implementation of NCA around the world. (See Annex E for the Communiqué for Governments.)

Private companies and financial institutions—including Walmart, Woolworths Holdings, Unilever, Standard Chartered, Puma, and Caisse des Dépôts—some of which had already endorsed initiatives like the finance-led Natural Capital Declaration and the Natural Capital Leadership Compact, reaffirmed their commitment to collaborate globally to integrate natural capital considerations into their decision-making processes.

By signing the communiqué, governments, private companies, and international organizations including the World Bank Group identified the need for coordinated action to:

- Develop institutional arrangements to strengthen the implementation of NCA
- Develop science-based methodologies for NCA as a complement to GDP and corporate performance measurements
- Pilot and demonstrate the economic, social, and environmental aspects of scaled-up and integrated approaches to NCA.

A Global Action Plan developed in consultation with WAVES partners notes three groups among the 32 developing countries that have signed the NCA communiqué:

- Group I: Five initial WAVES partnership countries—Botswana, Colombia, Costa Rica, Madagascar, and the Philippines—and two additional countries (Vietnam and India) are each receiving intensive technical support over four years.
- Group II: Six countries that have already started implementing NCA, or with a strong potential to do so immediately, may need short-term technical support
- Group III: Nineteen countries with limited data availability and capacity to implement NCA require longer-term, WAVES-type intensive technical support.



*Panel discussion at the IFC-World Bank event “Natural Capital Accounting post Rio+20” in Washington D.C*

Work in Group II and III countries begins with an assessment phase using a diagnostic tool, followed by implementation. Broad policy applications of NCA, described in the forthcoming SEEA Volume 3, will provide guidance for this work.

Technical support for the signatory countries began with regional training workshops with MENA (Middle East and North Africa) countries in March, hosted by the World Bank’s Center for Mediterranean Integration; workshops in LAC (Latin America and the Caribbean) countries in May, jointly with the U.N. Statistics Division; and a workshop on water accounts in Mauritius in May organized by UNSD and jointly funded with WAVES. Additional regional workshops are under discussion for Africa and Asia later in 2013.

In March 2013, an event was hosted by the International Finance Corporation (IFC) and the World Bank to discuss how to better measure, manage, and value natural capital. Two panel discussions, one focusing on the private sector and the other on the public sector, discussed what has been done and what needs to happen next to develop and scale natural capital accounting models and tools. Forging public-private partnerships and coalitions, and using public policy incentives were some of the suggestions offered to scale up efforts on NCA.

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62 countries and 90 private companies joined forces behind the move to factor the value of natural assets like clean air, clean water, forests, and other ecosystems into business decision making and systems of national accounting.





## The Road Ahead



The momentum for NCA crystalized in the outcome document of Rio+20, *The Future We Want*, which called for the development of measures that go “beyond GDP.” The large number of countries that signed the NCA Communiqué at Rio+20 demonstrates the willingness of countries to begin implementing NCA, given proper support.

The WAVES Partnership is uniquely positioned to build on that momentum and meet the challenge for rapid and widespread implementation of NCA. To do this, WAVES has drafted the Global Action Plan, which will be reviewed by signatory countries to the NCA Communiqué at a meeting in Washington on 18 April 2013.

In the coming year, the WAVES Secretariat will mobilize a broad network of organizations to use their own global and regional policy platforms for outreach and technical support for NCA in an expanded number of countries, bring a high-level campaign to governments to explain NCA and how countries benefit from it, and mobilize the resources needed to carry out this work.

The WAVES Partnership already includes a rich array of organizations needed to build this network. But there are numerous NCA-related initiatives—implemented under various names—at the regional and local levels that operate independently or within their respective agencies or region. The WAVES Secretariat will actively seek out all such initiatives to welcome them into the WAVES global platform for sharing knowledge and experience, recognizing that a key to success is to implement NCA at scale—that is, in a critical mass of countries—compiling a large body of evidence on NCA and its policy relevance.

WAVES will work with partners to identify and advocate for new opportunities to mainstream natural capital accounting in their technical cooperation programs, including programs directly supporting NCA as well as policy-based programs that can benefit

from including an NCA component, such as Green Growth or Green Economy programs, country TEEB studies, and climate change programs. Integrating NCA in policy programs ensures that the work is policy-driven, relevant to a country's development goals, and more likely to be institutionalized over the longer term.

To build the global community of practice, WAVES will review its Annual Partnership Meeting as a mechanism for regular reporting back, sharing results and accountability for commitments made to implement NCA.

WAVES will also work with partners to identify a program of coordinated activities such as communications and outreach, technical assistance programs, and the development of training materials.

WAVES has already started taking the first steps, together with its partners, toward an expanded NCA initiative:

- To meet the requests from new countries for NCA, regional training workshops are planned over six months in 2013 that will bring together policy makers and technical practitioners to learn about how NCA can help decision making. Regional technical advisors to provide follow-up support to countries are being brought on board.
- The development of training materials has begun, starting with the diagnostic tool for NCA. A meeting of agencies is planned for April to discuss how best to coordinate development of materials.
- WAVES PTEC has begun the process of assembling and analyzing the evidence base for policy use of NCA by governments, civil society, the private sector, academia, the media, and the general public.
- PTEC has begun discussion with partners, including Conservation International, The Nature Conservancy, WWF, and the University of Wageningen, among others, to identify sites to pilot methodology for ecosystem accounting.

WAVES is also engaged in discussions about how NCA can contribute to the Sustainable Development Goals (SDGs), building on the Millennium Development Goals. Issues currently being discussed for SDGs cover the three pillars of sustainability—economic, social, and environmental—and include such topics as poverty eradication, food security, sustainable energy, water, social protection, equity, and gender. Achieving a number of the SDGs will depend on sound management of natural assets. NCA can provide the information to support this.







## Annexes

## ANNEX A: Membership List of the Policy and Technical Expert Committee

Name	Title	Affiliation
Sofia Ahlroth	Head of Environmental Economics Unit	Swedish EPA
Francisco Alpizar	Director and Senior Research Fellow	Research Program in Economics and Environment for Development (P-IDEA), Tropical Agricultural Research and Higher Education Center (CATIE)
Giles Atkinson	Reader in Environmental Policy	Natural Capital Committee, UK
Edward Barbier	John S. Bugas Professor of Economics	Department of Economics and Finance, University of Wyoming, US
Steve Bass	Head	Sustainable Markets Group, International Institute for Environment and Development
Jim Boyd	Senior Fellow and Co-Director	Center for the Management of Ecological Wealth, Resources for the Future, US
Lauretta Burke	Senior Associate III	People and Ecosystems Program, World Resources Institute
Bram Edens	Statistician	Statistics Netherlands
Haripriya Gundimeda	Associate Professor	Department of Humanities and Social Sciences, Indian Institute of Technology, India
Kirk Hamilton	Lead Environmental Economist	World Bank
Geoffrey Heal	Donald C. Waite III Professor of Social Enterprise	Columbia Business School, Columbia University, US
Lars Hein	Associate Professor	Environmental Systems Analysis Group, University of Wageningen, The Netherlands
Pushpam Kumar	Chief	Ecosystem Services Economics Unit, Division of Environment Programme Implementation, UNEP
Glenn-Marie Lange	Program Manager, WAVES	World Bank
Urvashi Narain	Senior Environmental Economist	World Bank
Paulo A.L.D. Nunes	Head	Marine Economics Research Program, Mediterranean Science Commission
Michele Pittini	Deputy Director	Sustainable Land and Rural Evidence and Analysis, Department for Environment, Food, and Rural Affairs, UK
Steve Polasky	Fesler-Lampert Professor of Ecological/Environmental Economics	Department of Applied Economics, University of Minnesota, US
Rosimeiry Portela	Senior Director, Science and Knowledge	Conservation International
Priya Shyamsundar	Program Director	South Asian Network of Development and Environmental Economists, India
David Simpson	Economist	National Centre for Environmental Economics, US EPA
Robert Smith	Director, Environment Accounts and Statistics	Stats Canada
Heather Tallis	Lead Scientist	Natural Capital Project
Paul van Gardingen	Director	Ecosystem Services and Poverty Alleviation
Michael Vardon	Special Advisor	Environmental Accounting, Australian Bureau of Statistics
Jeffrey Vincent	Clarence F. Korstian Professor of Forest Economics	Nicholas School of the Environment and Earth Sciences, Duke University, US

## ANNEX B: Financial Information

All amounts are shown in U.S. dollars (information as of 16 April, 2013)

Donor Country	Currency	Amount in USD	Paid in USD	Unpaid in USD
United Kingdom - Department for International Development (DFID)	GBP	2,930,678.01	1,295,517.60	1,635,160.41
France - Agence Française de Développement	EUR	1,051,046.18	1,051,046.18	0.00
Norway - Ministry of Foreign Affairs	NOK	3,487,297.78	1,312,363.46	2,174,934.32
Germany - Federal Ministry for Economic Cooperation and Development (BMZ)	EUR	1,083,929.60	1,083,929.60	0.00
Netherlands-Minister of Foreign Affairs	USD	2,857,142.00	975,000.00	1,882,142.00
Denmark - Royal Ministry of Foreign Affairs	DKK	1,768,112.27	449,964.00	1,318,148.27
European Commission	EUR	3,318,697.98	1,680,750.00	1,637,947.98
Japan - Ministry of Finance	USD	2,996,667.00	1,586,667.00	1,410,000.00
		19,493,570.82	9,435,237.84	10,058,332.98



## ANNEX C: Signatories to the Natural Capital Accounting at Rio+20, August 2012

### Countries

Australia  
Austria  
Belgium  
Bhutan  
Botswana  
Bulgaria  
Brazil  
Colombia  
Costa Rica  
Cyprus  
Czech Republic  
Denmark  
Estonia  
Fiji  
Finland  
France

Gabon  
Germany  
Ghana  
Greece  
Grenada  
Hungary  
Ireland  
Italy  
Kenya  
Latvia  
Liberia  
Lithuania  
Luxembourg  
Madagascar  
Malawi  
Malta

Marshall Islands  
Mexico  
Mozambique  
Namibia  
Netherlands  
Norway  
Palau  
Papua New Guinea  
Philippines  
Poland  
Portugal  
Romania  
Rwanda  
Samoa  
Seychelles  
Slovakia

Slovenia  
South Africa  
Spain  
St. Kitts and Nevis  
St. Lucia  
Swaziland  
Sweden  
Tajikistan  
Tanzania  
Togo  
Trinidad and Tobago  
United Kingdom  
United States  
Vietnam

### Others

European Union  
Alberta (Canada)

### Private Sector

African Iron Ore Group Ltd.  
ArcelorMittal Mining  
China Merchants Property  
Development

Citi  
Credit Suisse AG  
Emerson Collective  
GEPP

GIST Advisory  
Isithebe Trust  
Kingfisher  
Nestlé S.A.

Rabobank  
Walmart Stores  
Woolworths Holdings Ltd.

### Natural Capital Declaration Signatories,

convened by UNEP-Fi, Global Canopy Programme and FGV

ASN Bank  
Athelia Ecosphere  
Banco Monte dei Paschi  
di Siena  
Banco Multiva  
Banco Pichincha  
Banorte - Ixe  
BBVA  
Caisse des Dépôts  
Caixa Econômica Federal  
Caledonia Wealth  
Management, Ltd.

Calvert Investments  
CDC Climat  
China Merchants Bank  
CIBanco  
Cyrte Investments  
Earth Capital Partners  
Financiera Rural  
FIRA-Banco de Mexico  
Fundación Social  
Infraprev  
International Finance  
Corporation

MN Services  
Mongeral Aegon  
Mutualista Pichincha  
National Australia Bank  
Nedbank  
Oppenheim  
PaxWorld Management  
Rabobank International  
Robeco  
Shenzhen Development  
Bank  
SNS Asset Management

Société Forestière  
Sovereign  
Standard Chartered  
Sumitomo Mitsui Trust  
Bank  
UniCredit  
Vision Banco  
Zevin Asset Management

### Natural Capital Leadership Compact

Alstom  
Anglo American  
Arup  
Asda

Aviva Investors  
Grupo André Maggi  
Kingfisher  
Mars

Natura Brasil  
Nestlé  
Olam  
Puma

SAB Miller  
Unilever  
Volac  
Votorantim

## Valuing Natural Capital Initiative

Led by The Corporate Eco Forum and The Nature Conservancy

Alcoa  
CH2M Hill  
Clorox  
Darden  
Dell  
Disney  
Dow Chemical

Duke Energy  
Ecolab  
EKO Asset Management  
Partners  
Enterprise  
FEMSA  
GM

Hanes  
Kimberly-Clark  
Lockheed-Martin  
Marriot  
Nike  
Patagonia  
TD Bank

The Coca-Cola Company  
Unilever  
Weyerhaeuser  
Xerox

## Civil Society and International Organizations

Bill & Melinda Gates  
Foundation  
BioRegional  
Conservation International  
Conservation South Africa  
East Africa Farmers  
Federation  
EcoAgriculture Partners

Food and Agriculture  
Organization of the United  
Nations  
German Development  
Institute  
Institute for European  
Environmental Policy

International Fund for  
Agricultural Development  
International Union for  
Conservation of Nature  
MacArthur Foundation  
Ramsar Convention on  
Wetlands

Tanzania Forest  
Conservation Group  
United Nations  
Environment Programme  
World Bank  
World Vision East Africa

## ANNEX D: Natural Capital Accounting Communiqué for Governments

### Communiqué on Natural Capital Accounting

*Recognizing* the limitations of GDP as a measure of well-being and sustainable growth that values environmental and social aspects of progress;

*Underscoring* the importance of natural capital accounting as a tool for mainstreaming natural capital into informed economic decision making;

*Recognizing* the adoption by the UN Statistical Commission of the 2012 System of Environmental-Economic Accounting (SEEA) central framework as the initial version of the international standard for environmental-economic accounts, subject to further revision, acknowledging that further improvements on measurement are necessary on specific issues;

*Noting* the challenge to build national institutional capacity to implement the SEEA, including the organization and collection of data, and to demonstrate its benefits to policy makers;

*Appreciating* that there are many successful experiences and best practices on natural capital accounting and that a key challenge we face is how to scale up, replicate and adapt what we know works;

*Welcoming* that Rio+20 offers an important opportunity for the international community to mobilize support for the implementation of previously stated commitments to implementing natural capital accounting.

Hereby:

Invites Governments, and the United Nations system, including international financial institutions, and other international organizations, as appropriate, working in partnership with major groups and other stakeholders to take action as follows:

1. Develop institutional arrangements to strengthen the implementation of natural capital accounting;
2. Develop science-based methodologies on an experimental basis for ecosystem accounting as a complement to GDP and corporate performance;
3. Pilot and demonstrate the economic, social and environmental aspects of scaled up and integrated approaches to natural capital accounting.

Further invite the United Nations Statistical Commission to assist in the implementation of the SEEA and, subject to availability of resources, in part provide support for the training of national accountants, environmental statisticians and national technical staff.









[www.wavespartnership.org](http://www.wavespartnership.org)



**WAVES**

*Wealth Accounting and  
the Valuation of Ecosystem Services*

Facilitated by the World Bank, Wealth Accounting and the Valuation of Ecosystem Services is a global partnership that aims to promote sustainable development by ensuring that the national accounts used to measure and plan for economic growth include the value of natural resources.



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