



WAVES
Capabilities
Brochure
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The Global Partnership on Wealth Accounting and the Valuation of Ecosystem Services

Valuing Natural Capital for
Sustainable Development



WAVES

www.wavespartnership.org



WORLD BANK GROUP

WAVES is a World Bank-led global partnership that aims to promote sustainable development by ensuring that natural resources are mainstreamed in development planning and national economic accounts.

What is Natural Capital?

Natural capital includes everything that we get from nature: clean air and water, fish, forests, unique biodiversity, diamonds and other minerals, the shoreline protection services of mangroves, and more. For too long, society has taken natural resources for granted. By failing to appreciate their value, we have undermined the very resources on which we depend.

WAVES believes there is a more inclusive and sustainable way to promote economic growth: by measuring our natural resources, recognizing their value, and incorporating that information directly into national economic accounts and statistics. This process is called natural capital accounting.

What is Natural Capital Accounting?

Natural capital accounting uses consistent and comparable data to show how natural resources contribute to the economy and how the economy affects natural resources. Natural capital accounts paint a broader picture of economic development than standard measures such as gross domestic product (GDP). Environmental accounting has been around for more than 30 years. In 2012, the United Nations approved the System of Environmental-Economic Accounting (SEEA) as a global standard consistent with the System of National Accounts—the internationally agreed standard set of recommendations on how to compile measures of economic activity. More than 50 countries have started using natural capital accounting based on the SEEA.

Natural capital accounting can address different questions about the relationship between natural resources and the economy (*see case studies about Botswana, Costa Rica, and Philippines*).

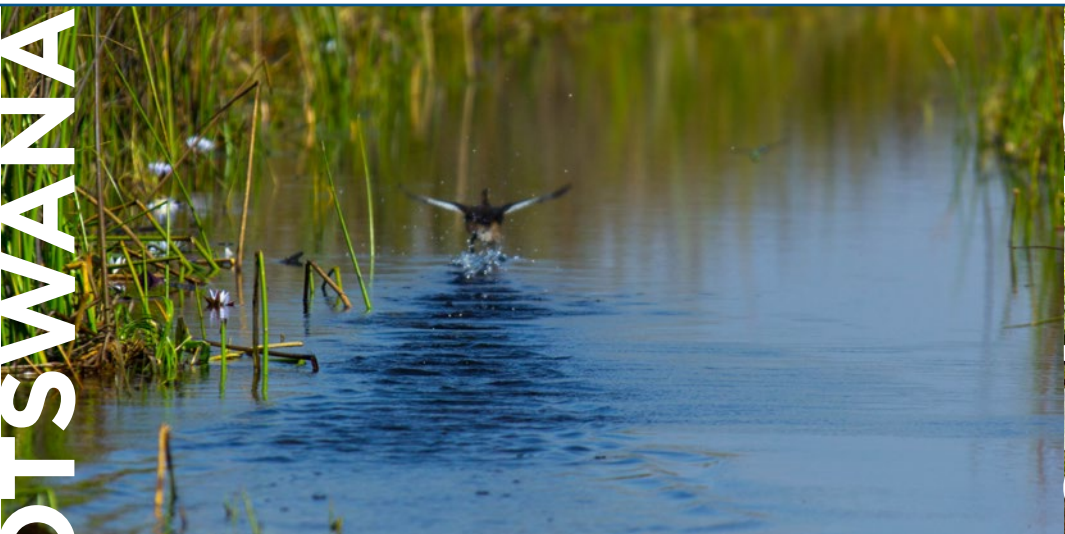
WAVES

Adopting natural capital accounting means moving away from business as usual: the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) global partnership was launched in 2010 to assist governments in making this transition. WAVES helps countries to not only collect data on natural capital's contributions to their economy, but also to use that information to improve policies that promote sustainable development. With better data and the capacity to use it, countries can make informed decisions and track their progress—at the national and local levels, and also internationally for agreements such as the Sustainable Development Goals (SDGs), as well as nationally determined contributions (NDCs) for reducing greenhouse gas emissions under the Paris Agreement.

What Does WAVES Offer?

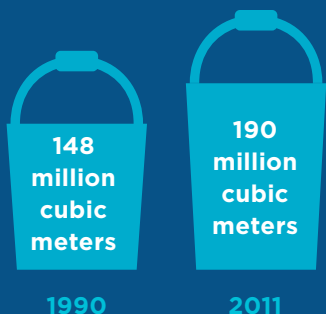
WAVES supports countries by providing the tools they need to make natural capital accounting a systematic part of how their governments work. WAVES' work includes:

- providing expertise on how to generate relevant statistics and natural capital accounts, independently and over the long term;
- supporting governments in setting up structures for using natural capital accounts in policy analysis; and
- fostering dialogue among government agencies for more effective policy-making.



Water is the Critical Factor

Water-scarce but mineral-rich Botswana is looking to diversify its economy while making water accessible and affordable. Findings from water and mineral accounts help it understand the trade-offs involved in investing in the agricultural, mining, services, and water sectors:



Even though per-person water use decreased by 12% between 1990 and 2011, a growing population means that **overall water use increased by 28%**. Most of the water used is groundwater, which may not be sustainable if it is not allowed to replenish.

Agriculture and livestock are important for livelihoods. However, **they use more than 40% of the available water** and contribute less than 3% to GDP, and little to formal employment.



Services is the most successful sector in terms of water productivity: **it contributes almost 50% of GDP**, uses only 5% of water, and provides the most formal employment.



A Tale of Forests and Water

Costa Rica is committed to sustainable tourism and green growth, but faces pressures from urbanization, growing demand for energy, and the expansion of agriculture. Forests and water accounts provide a comprehensive understanding of the opportunities and challenges in managing these resources:



Forest cover increased from 47% to 51% from 1992 to 2013.

Although there are abundant water resources, they are not being used efficiently: **57% of piped water is lost by distributors**, 54% of water supplied is not billed, 51% of irrigated water is lost.



Timber extraction only: **0.1–0.2% of GDP**



Including non-timber products: **2% of GDP**



Before forest accounts, the forest contribution to the economy was based on the value of timber extraction and estimated at 0.1% to 0.2% of GDP. Now, forest accounts also measure non-timber products such as nuts and medicines, and show that **forests contribute 10 to 20 times more to GDP—2%**, or close to \$1 billion. These numbers do not reflect the role of forests in Costa Rica's ecotourism industry.



An Eco-Balancing Act

The Philippines' natural wealth includes unique biodiversity, forests, water, minerals, fisheries, and more—but investing in one sector can have profound implications for another. Key findings from pilot ecosystem accounts in Southern Palawan show:

**Agriculture
has displaced
75% of forests.**




Losing upstream forests could **decrease rice paddy production by 17%.**

**The condition of
mangroves is in
decline** because of conversion to fish ponds and unsustainable timber harvesting.



**45% of the coral
reefs are in
poor condition** because of overfishing, destructive fishing practices, and pollution.





“Natural disasters such as super typhoon Haiyan have underscored the imperative for a disaster-prone country like the Philippines to include the environment and natural resources in its national planning and development agenda.”

—Edward Eugenio Lopez-Dee, division chief, Environment and Natural Resources Accounts Division, Philippines

WAVES' Results

In its first phase, WAVES supported five countries: Botswana, Colombia, Costa Rica, Madagascar, and the Philippines. All of these countries now have teams dedicated to natural capital accounting, and four of them have national development plans or sector-specific plans that include natural capital accounting. Three more countries—Guatemala, Indonesia, and Rwanda—joined the program in 2013.

WAVES+

The partnership's second phase, known as WAVES+, will build on growing momentum to make natural capital accounting a game changer for sustainable development. Zambia became the first new WAVES+ country in January 2017. A scoping mission to the Kyrgyz Republic took place in the spring of 2017 to plan for a WAVES+ engagement there. Also, WAVES+ is using small grants and working with local partners to apply natural capital accounting to policy programs such as green growth in Uruguay, coastal management in Western Africa, and forest agendas in Nepal.

WAVES partners with numerous development, academic, and private sector entities that are helping to implement natural capital accounting. It is funded by two multidonor trust funds hosted at the World Bank, and is advised by a steering committee. WAVES is grateful to its donors—Denmark, the European Commission, France, Germany, Japan, The Netherlands, Norway, Switzerland, and the United Kingdom.

Photos: John Piekos (cover); Doods Dumaguing (above); Kevin Brown (Botswana); Descubriendoelmundo (Costa Rica); Andrew Smith (Philippines). All licensed under Creative Commons.

Making WAVES

If you are interested in sharing your experience in natural capital accounting, or in learning more about how to implement it, WAVES would love to hear from you. Please contact wavespartnership@worldbank.org

Learn more about WAVES at www.wavespartnership.org

Free resources on natural capital accounting are available at the WAVES Knowledge Center: www.wavespartnership.org/en/knowledge-center



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