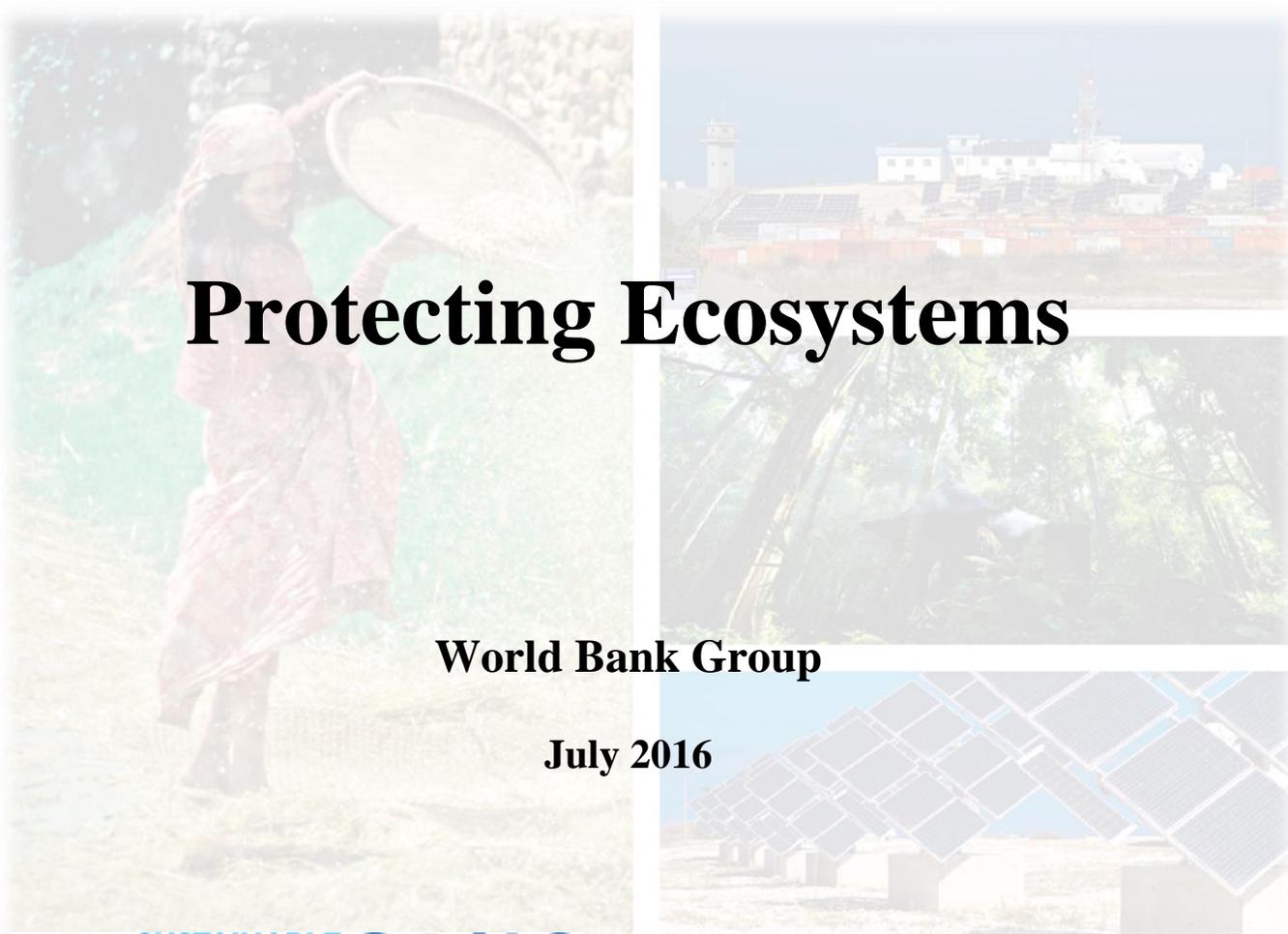


INTER-AGENCY TASK FORCE
ON FINANCING FOR DEVELOPMENT

Issue Brief Series



Protecting Ecosystems

World Bank Group

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Protecting Ecosystems World Bank Group

1. Introduction

The 7th set of the Addis Agenda commitments address **Protecting Ecosystems**, including both terrestrial and marine ecosystems. The commitments range from the sustainable use of natural resources to protecting biodiversity for future generations. The first commitment reads:

Commits to coherent policy, financing, trade and technology frameworks to protect, manage and restore our ecosystems, including marine and terrestrial ecosystems, and to promote their sustainable use, build resilience, reduce pollution and combat climate change, desertification and land degradation.

Eight more detailed commitments drill down into priorities for biodiversity, desertification, forest management; ocean conservation, climate change, artisanal fisheries, marine technology, and corporate sustainability. This Briefing note addresses issues pertaining to **forest, desertification/land degradation, biodiversity and marine ecosystems**. The cross-cutting commitments concerning climate change and corporate sustainability are discussed elsewhere (i.e., Section II.C on climate finance, and chapter II.B on corporate sustainability, respectively).

2. Stocktaking

Protecting ecosystems is fundamental to reducing poverty and promoting shared prosperity. Environmental and natural resources are often critical in the lives of the poor, including the bottom 40 percent. Examples abound of the role and dependence of the poorer sections of the population on natural assets. For instance:

- Close to 20 percent of humanity, about 1.3 billion people, rely on forests for their livelihoods, and the majority of them subsist on less than \$1.25 a day. 300 to 400 million people are dependent on forest goods, the majority of whom belong to the world's poor living in rural areas, and forests supply 18 million jobs in the formal sector worldwide and at least 10 times that amount in the informal sector.
- Land degradation and poverty are often deeply intertwined with an estimated 42 percent of the world's poorest live on land that is classified as degraded.
- Fisheries assure the livelihoods of as many as 660-820 million people - or 12 percent of the world's population. However, over-fishing and depletion of fish stocks, a consequence of the tragedy of the commons, has eroded income and profitability across the industry, often turning it into an employer of last resort.
- An estimated 12.6 million people died in 2012 as a result of living or working in an unhealthy environment in 2012 – nearly 1 in 4 total global deaths, and mostly in developing countries. Deaths due to noncommunicable diseases mostly attributable to air pollution, amount to as much as 8.2 million of these deaths.

- The poor may confront a second burden of environmental health risks – beyond the direct pollution impacts– from infrastructure service deficits in the areas of inadequate sanitation, clean household energy, and waste management.

In spite of the urgency of these issues, global responses have been inadequate and trends in ecosystem degradation remain highly negative. While many social issues such as poverty, education, rights, and violence have positive trends, trends in ecosystem degradation, pollution, over-consumption, and climate change are still worsening. More specifically, the planet experiences the yearly net loss of 5.6 million hectares of forests, erosion of 24 billion tons of fertile soil, degradation of 12 million hectares of land through desertification and drought, and the degradation of 60 to 70 percent of the world’s ecosystems. The proportion of global ocean fisheries that are fully fished, overfished, depleted, or still recovering from overfishing increased from just over 50 percent in the mid-1970s to about 75 percent in 2005 to a staggering 90 percent in 2011.

A recent study concluded that: *“Land use and related pressures have already reduced local biodiversity intactness beyond its recently proposed planetary boundary across 58.1% of the world’s land surface. Such widespread transgression of safe limits suggests that biodiversity loss, if unchecked, will undermine efforts toward long-term sustainable development”* (Newbold et al, Science, July 2016). The Addis commitments and the highly aligned Sustainable Development Goals are welcome recognition of the globally recognized importance of turning the tide on these issues. The many initiatives, financing projects, and partnerships being developed in the area of “Protecting Ecosystems” address numerous Sustainable Development Goals (SDGs), including 2 (zero hunger), 3 (good health and well-being), 6 (clean water and sanitation), 13 (climate action), 14 (marine life), and 15 (life on land).

3. Corrective Actions

Forestry. To address forest ecosystem issues, increased efforts are required to increase direct investments, payments for environmental services, climate finance for REDD+, participatory land use planning, community-based management, and improved governance. To this end, the World Bank’s recent Forest Action Plan (FAP) supports countries in their efforts to harness the potential of forests to reduce poverty, better integrate forests into their economies, and protect and strengthen the environmental role forests play locally and globally. The FAP focuses on two priority areas: (a) direct investments in sustainable forest management, and (b) “forest-smart” interventions in which the Bank will take a holistic approach to development-related projects in forest landscapes so that its work in sectors like agriculture, transport and energy does not erode forest capital and instead generates positive forest outcomes.

These two pillars are underpinned by three cross-cutting themes that are key for progress on forests: (i) climate change and resilience, (ii) rights and participation, and (iii) institutions and governance. Good forest governance and strong institutions are core conditions for sustainably managed forests. Clear ownership, access, and management rights over forests are also vital to build forest-dependent communities’ assets, create jobs and manage forest resources more

sustainably. Private sector commitment and action around deforestation free commodity supply chains is also critical to conserving forest resources and reducing risks for businesses who rely on commodity supplies.

In implementing the new FAP, the World Bank increasingly strives for a coherent, programmatic approach to financing its forest development projects by combining public and private financing as well as resources from innovative forest-related funds such as the Forest Carbon Partnership Facility, the Forest Investment Program, the BioCarbon Fund Initiative for Sustainable Forest Landscapes, and the Global Environment Facility. It supports countries to take the importance of natural capital into account. The scale of World Bank activities in the forest sector is increasing, motivated by the FAP and leveraging development investments with both climate finance and forestry-related grants (such as the Program on Forests (PROFOR) trust fund).

Desertification/Land Degradation. The combined negative impacts of deforestation, poor land management, and climate change have required new solutions to desertification and land degradation. These issues require an integrated approach to sustainably managing and restoring land, water and coastal resources. A “landscape” approach supports land restoration techniques that improve crop yields, reduce erosion, and enhance the provision of water in order to increase livelihoods, enhance resilience to climate change, and store carbon to mitigate climate change.

There has been a major push in support of landscape approaches over the past decade, including concrete targets for both Latin America and Sub-Saharan Africa. These include:

- the Bonn Challenge, dating to September 2011, calls on countries and other actors to begin restoring 150 million hectares of deforested and degraded forestland worldwide by 2020, and 350 million hectares by 2030.
- The Lima Initiative 20x20 set a target of restoring 20 million ha in Latin America by 2020;
- The AFR100, agreed at the Paris COP21, calls for the restoration of 100 million ha in Africa, with a launch by 2020 and completion by 2030.
- World Bank commitment to develop landscape restoration programs in Indonesia, Vietnam, Tunisia and Central Asia, especially in climate- and drought-impacted areas.
- World Bank commitment to support environmentally sustainable livelihood alternatives in 50 coastal communities in West Africa.

Finally, two of the most visible efforts to address desertification are the Great Green Wall program and the Lake Chad Action Plan. These programs implement projects in the agriculture, disaster risk management, environment and natural resources, social protection and water sectors. New commitments of \$2.2 billion made at the Paris Climate Change COP are additional to prior commitments of \$4.4 billion that already support the Great Green Wall and the Lake Chad Basin through the following programs:

- the Sahel & West Africa Program in support of the Great Green Wall, developed under the TerrAfrica partnership with support of the GEF as a \$1.1 billion investment;

- the World Bank - United Nations Joint Sahel initiative, including a World Bank pledge of \$ 1.5 billion;
- the Horn of Africa Initiative to which the Bank pledged \$1.8 billion for cross-border activities; and
- the Lake Chad Climate Resilient Action Plan, recently approved with technical assistance of the WBG, and supported by the Cooperation in International Waters in Africa.

Biodiversity. Since ecosystem loss interacts very closely with other sustainability and development efforts, biodiversity objectives are part of the previously-mentioned forestry and landscape approaches. However, biodiversity objectives also include providing specific support to protected areas, institution building, sustainable financing schemes for conservation, promoting nature-based tourism, and fighting wildlife crime. Global and regional partnerships play an important role in promoting biodiversity conservation, the most important of which are the Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development, the International Consortium on Combating Wildlife Crime (ICWC), and the Amazon Sustainable Landscapes (ASL) Program.

Oceans. The world counts 54 coastal and island countries with lower and lower-middle income levels, for whom innovation and growth in the coastal, marine and maritime sectors could deliver food, energy, transport, and other services as an opportunity for sustainable development. Diversifying countries' economies beyond land-based activities and along their coasts can help countries achieve smart, sustainable and inclusive growth.

One of the most important recent developments in ocean policy discourse has been the concept of the "Blue Economy". Development of the blue economy is possible in a number of areas, including fisheries, aquaculture, mariculture, coastal tourism, marine biotechnology, and ocean energy. While some of these sectors will require little encouragement and additional governance, others need more and better planning to achieve their full potential and return more sustainable outcomes. Ambitious governance reforms in Morocco for instance, helped the country develop its aquaculture sector to generate jobs, especially for women, in rural areas where employment prospects are challenging. Providing technical knowledge of marine ecosystems, legal certainty and security to attract private investment have been key success factors in that instance.

In scaling up its overall engagement in the blue economy, the World Bank Group (WBG) is scaling up its activities in various ways:

- Investment finance. Both more efficient equipment and skilled labor is in high demand in all developing countries and highly relevant to the blue economy. WBG investments in the broader ocean economy -- and in parallel skills training for fishers who are willing to diversify away from fishing -- can produce win-wins for economic development across sectors and make space for conservation.

- Convening services. Beyond bringing finance to development, the WBG can foster dialogue and help align donor and national priorities and sponsor cooperation in developing the blue economy.
- Technical assistance. The provision of high-quality science and technology to developing countries, as well as fostering cooperation and knowledge-sharing, is essential to sustainable blue economies.
- Climate finance. A healthy ocean is also fundamental to the global effort to mitigate climate change and its impacts. “Blue carbon” sinks such as mangroves and other vegetated ocean habitats sequester 25 percent of the extra CO₂ from fossil fuels and protect coastal communities from floods and storms. In turn, warming oceans and atmospheric carbon are causing ocean acidification that threatens the balance and productivity of the ocean. Integrating oceans in to climate mitigation and adaptation plans is important for achieving long-term sustainability.

The most significant WBG activities in these areas include support for Pacific island region, West Africa and South West Indian Ocean fisheries management, a partnership to build governance for migratory fish stocks in areas beyond and between national jurisdiction, and a regional technical assistance program to combat coastal erosion in West Africa. The WBG also contributes to knowledge around oceans and fisheries with publications such as *Fish to 2030: Prospects for Fisheries and Aquaculture*; *The Sunken Billions: The Economic Justification for Fisheries Reform* and more. In 2014, the World Bank released the *Trade in Fishing Services Report*, which discusses best practices for foreign fishing arrangements that benefit developing nations. Finally, the WBG convenes partners and stakeholders to mobilize ocean investment, advocate for positive reforms and ensure that healthy oceans remain on the global development agenda. It works through partnerships including the PROFISH program, the Alliance for Responsible Fisheries, the Strategic Partnership for Fisheries in Africa and the Ocean Partnerships for Sustainable Fisheries and Biodiversity Conservation.

Annex

A. Selected World Bank Activities in Forestry

Between Fiscal Year 2002 and 2015, the World Bank Group (WBG) committed a total of \$15.7 billion to projects that include forestry components, of which about \$3.2 billion were specifically dedicated to forests from IDA/IBRD and Trust Funds, and \$3.3 billion were invested in forest product companies by the International Finance Corporation (IFC), the Bank's private lending arm. The World Bank aims to continue this positive influence on development through the newly-established Forest Action Plan (FAP) for Fiscal Years 2016-2020.

- **The World Bank Group's Forest Action Plan (2016–20)** focuses on investments in sustainable forest management and “forest-smart” interventions that take a holistic and multisectoral look at forest landscapes. These two focus areas are supported by three themes that aim to strengthen the foundations for positive forest outcomes: climate change and resilience, rights and participation, and institutions and governance. The Plan continues the Bank's commitment to a strategic approach to forests through policy advice, investments, and performance-based payments, and aims to boost the potential of forests to lift people out of poverty and generate lasting social, economic, and environmental returns. It supports countries to define development pathways that take the importance of their forest capital into account.
- **The Program on Forests (PROFOR)** is hosted by the World Bank and was created in 1997 to support in-depth analysis, innovative processes, knowledge sharing, and dialogue to improve forest policy. In 2012, PROFOR created the **Assessing and Monitoring Forest Governance Diagnostic Tool**. The tool consists of a set of indicators in the form of multiple-choice questions about aspects of forest governance and a protocol for scoring the indicators. Some cover general features of governance, some touch on specifics, and some serve as proxies for factors that are difficult to assess directly. Taken as a whole, the tool examines forest sector governance broadly, serving as a self-assessment to identify areas deserving improvement.
- **The Forest Carbon Partnership Facility (FCPH)** is a global partnership of governments, businesses, civil society, and indigenous peoples focused on reducing emissions from deforestation and forest degradation, forest carbon stock conservation, the sustainable management of forests, and the enhancement of forest carbon stocks in developing countries (REDD+), of which the Bank is a trustee, secretariat, and delivery partner. THE FCPH is funded through the Readiness Fund and the Carbon fund. Both disseminate funding for projects in Africa, Latin America and the Caribbean, and Asia, and are underpinned by a multi-donor fund of governments and non-governmental entities, including private companies that make a minimum financial contribution of \$5 million.

- **Climate Investment Funds (CIF)** provide 72 developing and middle-income countries with urgently needed resources to manage the challenges of climate change and reduce their greenhouse gas emissions. Since 2008, the CIF has been leading efforts to empower transformations in the energy, climate resilience, transport and forestry sectors.
- **The Forest Investment Program (FIP)** provides indispensable direct investments to benefit forests, development and the climate in Asia, Africa, and Latin America. FIP grants and low-interest loans, channeled through partner multilateral development banks (MDBs), are empowering countries to address the drivers of deforestation and forest degradation both inside and outside of the forest sector to achieve the triple win of being good for forests, good for development and good for the climate.
- **The Bio Carbon Fund Initiative for Sustainable Forest Landscapes** seeks to promote reduced greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries (REDD+) and from sustainable agriculture, as well as smarter land use planning, policies, and practices. The initiative will deploy results-based finance to incentivize changes at the landscape level, and recognizes the important role the private sector plays in spurring innovation and mobilizing necessary capital to scale-up successful land-use practices. The Initiative finances projects through grant funding and technical assistance (BioCFplus) and results-based payments for achieved emission reductions (BioCarbon Fund).
- **Costa Rica's Payment for Environmental Services Program (PESP)**, a national approach of paying for environmental services established in 1997, has achieved consistent net increases in forest cover through forest protection and restoration activities. By 2014, the program had supported more than 80,000 hectares of forest restoration through reforestation and natural regeneration activities and established more than 6 million trees in productive landscapes through agroforestry systems.

B. Selected World Bank Activities in Landscape Management

The World Bank supports an integrated approach for sustainably managing and restoring land, water and coastal resources for multiple purposes and functions. Managing natural resources in an integrated way across different land uses, and connecting them at the landscape level, provides the basis for enhancing people's livelihoods, security, and resilience to climate variability and change. For policy-makers, it is a chance to plan across economic sectors by focusing on development challenges at the right scale by minimizing trade-offs and reaping more value from existing resources. The integrated nature of the landscape approach also allows the Bank to facilitate partnerships. Some of the most successful partnerships include the Forest Carbon Partnership Facility and the BioCarbon Fund Initiative for Sustainable Forest Landscapes, the Great Green Wall for the Sahara and the Sahel Initiative, TerrAfrica, and the Amazon Sustainable Landscapes Program.

- **The Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI)** is a trans-African program led by the African Union that aims to strengthen the resilience of the region's people and natural systems and to reverse land degradation and desertification in the Sahel and Sahara, boost food security, and support local communities to adapt to climate change. The World Bank and the Global Environment Facility (GEF) support this initiative through the Sahel and West Africa Program, active in 12 countries. GGWSSI projects include Action Against Desertification, the Building Resilience through Innovation, Communication, and Knowledge Services (BRICKS) project, the FLEUVE initiative, and the Sahel and West Africa Program (SAWAP).
- **The TerrAfrica Partnership** brings together key actors in African countries and development partners, including the World Bank, the EU, and the Governments of the Netherlands and Norway to address land degradation and build resilient landscapes through innovative approaches. As part of TerrAfrica, the World Bank supports cutting-edge analytical work, knowledge sharing and innovation, and large-scale land restoration that contributes to sustained poverty reduction and economic development, the most noteworthy of which are in Ethiopia and Niger.
- **The African Resilient Landscapes Initiative (ARLI)**, endorsed by the Africa Union on October 2015, promotes integrated landscape management with the goal of adapting to a mitigating climate change by connecting farmland, forestland, and rangeland. ARLI and its forest component, the African Restoration Initiative (AFR100) were both launched formally at COP 21 in Paris. These country-led efforts hope to bring 100 million hectares of land in Africa into restored status by 2030.
- **China's Loess Plateau Project** transformed a degraded and devastated environment into a replenished and productive landscape by encouraging natural regeneration of grasslands, trees, and shrub cover on previously cultivated slopes, replanting vegetation, and banning grazing. These measures returned a devastated plateau to a thriving landscape supporting sustainable agricultural production, and improving the livelihoods of 2.5 million people. The project's principles have been adopted and replicated widely, including in India's Karnataka Watershed Development project and Turkey's Anatolia Watershed Project.
- **Ethiopia's Sustainable Land Management Project (SLMP-2)** is the Bank's flagship resilient landscapes operation. SLMP II Takes an inclusive, community-based integrated watershed management approach. Since 2008, 260,000 hectares of production lands have improved management, benefiting more than 700,000 people. Major crop yields increased an average 10%, protective vegetation cover in the project watersheds increased 9%, and household income increased 161%. SLMP-2 provides an integrated package of solutions to help break the degradation/poverty cycle such as terracing, closing pastures to regenerate tree and vegetation cover, reforestation, gully reclamation, and woodlots; and provides livelihoods support and

climate-smart agriculture including better crop and livestock management practices. SLMP2 also supports land use and watershed planning, land tenure certification, and infrastructure such as small irrigation and rural roads.

C. Selected World Bank Activities in Biodiversity

The World Bank is one of the largest international financiers of biodiversity conservation with a portfolio of 241 projects worth \$1.24 billion FY2006 to 2016. These projects have been undertaken in 120 countries, with the majority in Africa and the Latin America and Caribbean region. Through the application of its safeguards policies (currently under review and update), the World Bank also integrates biodiversity concerns into all of its investment projects. The Bank also helps countries find ways to generate revenues from biodiversity, including through tourism or payments for environmental services, that will cover the cost of managing their biodiversity and improve economies.

- **The Amazon Sustainable Landscapes (ASL) Program** is a five-year regional program spanning Brazil, Colombia, and Peru, designed to conserve the Amazon Forest through an integrated approach that incorporates sustainable land use, protected areas management, and the restoration of vegetation cover. The total amount of investment is estimated at over US\$600 million, including GEF Grant, donor and counterpart funds. The program was approved in 2015 by the Global Environment Facility (GEF) Council, and is the collaborative effort of the World Bank, as the lead agency, the World Wildlife Fund (WWF), and the United Nations Development Programme (UNDP).
- **The Coastal and Biodiversity Management Project in Guinea-Bissau** helped the country establish national parks and protected areas network, protecting 480,000 hectares of the country's coastal zone. In four of the five established protected areas, the effectiveness of park management increased by at least 15 percent from 2005 to 2010.
- **The Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development**, a US\$90 million grant program led by the Bank and the Global Environment Facility (GEF), launched in 2015. The program focuses on designing and implementing national strategies to help countries secure their wildlife resources, habitats, and the benefits they derive from them, while also reducing poaching and illegal wildlife trafficking.
- **The International Consortium on Combating Wildlife Crime (ICCWC)** launched in 2010 brings together Interpol, the CITES Secretariat, World Customs Organization, UNODC, and the World Bank to promote effective law enforcement nationally and internationally in order to prevent forest and wildlife crime and therefore plays a significant role in biodiversity protection. ICCWC also supports sustainable

development and equitable benefit-sharing of the proceeds from sustainable natural resource management.

D. Selected World Bank Activities in Oceans and the Blue Economy

The World Bank's active 'blue growth' portfolio is worth US\$6.4 billion. The Bank provides some \$1 billion in financing for sustainable fisheries and aquaculture, and for efforts to conserve and enhance coastal and ocean habitats. The Bank's engagement in fisheries and aquaculture is also supported by the PROFISH program, which aims to improve the environmental, social, and economic sustainability of world's fisheries and aquaculture. The Bank also provides some \$5.4 billion for coastal infrastructure such as waste treatment, watershed management and other activities that help reduce coastal pollution.

- **The Global Program on Fisheries (PROFISH)**, a multi-donor trust fund housed at the Bank, strengthens the WBG offer by supporting improved fisheries and aquaculture. PROFISH focuses on improving environmental sustainability, human wellbeing, and economic performance in the world's fisheries and aquaculture, with a focus on the welfare of the poor in fisheries and fish farming communities in the developing world. It has three pillars: governance, science and data, and markets and finance. To date, PROFISH investments of US\$4.5 million in research, analysis and technical support have generated US\$1 billion in World Bank lending. It also helped create ALLFISH, which leveraged US\$1.5 million from the Global Environment Facility into US\$8.5 million of private sector investments in sustainable seafood supply chains; and facilitated a US\$10 million IFC investment in aquaculture with a return on investment of 727 percent.
- **The Coral Reef Rehabilitation and Management Project (COREMAP)** in Indonesia, where two-thirds of coral reefs are considered threatened by overfishing, has benefited 358 village communities by establishing marine protected areas and reducing illegal and destructive fishing. This work has increased communities' income in COREMAP areas by 21 percent since 2008. Now in its third phase, the project aims to increase communities' income by 15% and improve coral reef health in at least 70% of project sites by 2019.
- **The West Africa Regional Fisheries Program** covers eight countries: Cabo Verde, Ghana, Guinea, Guinea Bissau, Liberia, Mauritania, Senegal and Sierra Leone. The program aims to increase the economic contribution of marine resources through strengthened fisheries governance, reduced illegal fishing, and increased local value added to fish products. In Liberia, the government passed comprehensive fisheries regulations in December 2010 and inaugurated the first fisheries monitoring center. Since that time, the incidence of illegal fishing has been reduced by 83 percent and fishing communities report higher catches. In Sierra Leone, the Government has brought over 14 industrial vessels to port for illegal fishing and increased public revenues from the fisheries sector from US\$0.9 million in 2008 to US\$3.8 million in 2013. Senegal in June 2015 enacted a new Fisheries Code for a sensible and sustainable utilization of fisheries resources,

including community-led fisheries management. Twelve fishing communities have since been formally recognized, with some reporting an increase in returns of up to 133%.

- **The Integrated Coastal Zone Management in India** finances national- and state-level capacity building and pilot investments in pollution management, resource conservation, and livelihood improvements. The program is pioneering ‘Hazard Line’ mapping for the entire coastline of India, to better manage coastal space and minimize vulnerabilities through shoreline protection and land use plans. So far, 1.5 million people have benefitted from the program, with nearly half of them women, and more than 12,000 hectares of mangroves have been restored. Work has also begun to stop the flow of more than 80 million liters of untreated sewage into the ocean per day and to protect over 400 km of coastline by 2017.
- **Mozambique’s Conservation Areas** consist of diverse habitats that include a coastline with some of the most spectacular coral reefs in the world. The WBG-supported MozBio Project aims to strengthen Conservation Areas’ protection and improve the lives of communities in and around them. It does so by supporting efficient management, promoting tourism, as well as creating jobs, business opportunities, and livelihood activities that focus on conservation and biodiversity.