financing the achievement of the targets

the gef-6 biodiversity strategy
Foreword
It is my great pleasure to present in this publication the GEF-6 biodiversity strategy for 2014-2018.

As the financial mechanism of the CBD the GEF provides funding to help countries implement the Strategic Plan for Biodiversity, 2011-2020, and achieve the Aichi Targets. I am pleased that donors during the recently completed replenishment pledged $1.296 billion towards the biodiversity focal area for GEF-6, making it the largest individual focal area within the GEF.

Consistent with the CBD Strategic Plan, the goal of the GEF’s biodiversity strategy is to maintain globally significant biodiversity and the ecosystem goods and services that it provides to society. To achieve this goal, the strategy encompasses four objectives:

1) improve sustainability of protected area systems;
2) reduce threats to biodiversity;
3) sustainably use biodiversity; and
4) mainstream conservation and sustainable use of biodiversity into production landscapes/seascapes and sectors.

The GEF-6 biodiversity strategy is composed of ten programs that, through a continuum of measures, address the most critical drivers of biodiversity loss across entire landscapes and seascapes. The programs include direct conservation/protection, threat-reduction, sustainable use, and biodiversity mainstreaming approaches. Each program provides a focused and calibrated response in a specific ecosystem or location in a landscape or seascape. In addition, for the first time, the strategy addresses the most critical underlying driver of biodiversity loss; the failure to account for and price the full economic value of ecosystems and biodiversity.

Achieving the Aichi Targets will require more than money. To have transformational results will require landscape-level and sector-wide approaches that integrate the sustainable management of biodiversity into multiple sectors and that require engagement and ownership with stakeholders beyond the environment sector.

GEF’s new biodiversity strategy acknowledges this reality and provides ample opportunities for countries to pursue new biodiversity management solutions that are systems-oriented, that address underlying drivers and direct pressures of biodiversity loss, and that engage all sectors of Government and society.

We look forward to supporting a new generation of biodiversity investments that match the scope of the challenge and the aspirations inherent in the Strategic Plan and we commit to work together with the CBD, donors and recipient countries, GEF agencies, and civil society towards the joint achievement of the Aichi Targets.
BIODIVERSITY STATUS

The Convention on Biological Diversity (CBD) defines biodiversity as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems.” 1

The global target set by the CBD “to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth” was not met. The Global Biodiversity Outlook 3 reported the following sobering analysis:

- Species that have been assessed for extinction risk are on average moving closer to extinction. Amphibians face the greatest risk, and coral species are deteriorating most rapidly in status. Nearly a quarter of plant species are estimated to be threatened with extinction.
- The abundance of vertebrate species, based on assessed populations, fell on average by nearly a third between 1970 and 2006, and continues to fall globally, with especially severe declines in the tropics and among freshwater species.
- Natural habitats continue to decline in extent and integrity, although the rate of loss for tropical forests and mangroves has slowed significantly in some regions. Freshwater wetlands, sea ice habitats, salt marshes, coral reefs, seagrass beds, and shellfish reefs are all showing serious declines.
- Extensive fragmentation and degradation of forests, rivers, and other ecosystems have also led to loss of biodiversity and ecosystem services.
- Crop and livestock genetic diversity continues to decline in agricultural systems.³

1 Convention on Biological Diversity, UNEP/CBD/94/1.
Drivers of Biodiversity Loss

The Millennium Ecosystem Assessment highlighted the five main direct drivers of biodiversity loss: habitat change, overexploitation or unsustainable use, invasive alien species (particularly in island ecosystems), climate change, and pollution. More recent analyses, including the Global Biodiversity Outlook 3, reported that these five drivers remain the principal causes of biodiversity loss and are either constant or increasing in intensity. An analysis of the proportion of threatened species on the IUCN Red List (mammals, birds, amphibians) affected by each driver showed that more than 80% are under threat from habitat loss, 70% from overexploitation and unsustainable use, and almost 30% from invasive alien species. Although climate change is an emerging driver, less than 20% of threatened species are affected by climate change and only 10% by pollution.

Conference of the Parties (COP) Guidance to the GEF

The guidance to the GEF from COP-11 covering GEF-6 (2014-2018) directed the GEF to support the implementation of the Strategic Plan for Biodiversity 2011-2020, including the new Strategic Plan for biosafety and the first set of guidance provided to the GEF from the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access and Benefit-sharing (ICNP). However, the COP did not prioritize the elements of the Strategic Plan or the Aichi Targets that GEF should support during GEF-6.

The Strategic Plan for Biodiversity 2011-2020 and the guidance provided to the GEF is ambitious, comprehensive, and potentially expensive to implement. At COP-11, an estimate of the resources required to implement the strategic plan and achieve the Aichi Targets within GEF-eligible countries was presented by an external expert group. The estimate of the amount of resources required for the GEF-6 period ranged from $35-87 billion in total for GEF-eligible countries, and, after applying various co-financing ratios, the GEF incremental amount ranged from $5 billion to $29 billion.

Rationale and Approach

The GEF-6 strategy does not explicitly address all direct or indirect drivers of biodiversity loss. The strategy prioritizes the three principal direct drivers — habitat loss,
overexploitation, and invasive alien species — which remain the most critical for the achievement of the Aichi Targets and are largely responsible for current trends of biodiversity loss and ecosystem degradation. This approach will provide the best opportunity for GEF to exploit the intersection of its mandate and the Strategic Plan and the associated Aichi Targets, and will ensure that GEF investments achieve impact at scale while delivering global environmental benefits. The current drivers of biodiversity loss require a multi-pronged strategy to sustain biodiversity through a combination of protection, sustainable use, and biodiversity mainstreaming.

GEF’s response recognizes that effectively managed protected area systems — a cornerstone of conservation for more than 100 years — make significant contributions to achieving many of the Aichi Targets. Protected area systems provide economically valuable ecosystem goods and services and hence are core elements of a country’s ecological infrastructure. Development and resource use external to the protected area estate, however, often degrades biodiversity and ecosystem goods and services. Targeted threat reduction and the promotion of the sustainable use of biodiversity can help secure the protected areas themselves while contributing to the sustainable management and climate-resiliency of the surrounding landscapes and seascapes.

Biodiversity mainstreaming is the process of embedding biodiversity considerations into policies, strategies, and practices of key public and private actors that impact or rely on biodiversity. Mainstreaming enables biodiversity to persist across entire landscapes and seascapes. The societal failure to adequately price the economic value of biodiversity has undermined the long-term sustainability of mainstreaming efforts, which have often focused too narrowly on threat mitigation and palliative attempts to offset biodiversity loss. GEF support to biodiversity mainstreaming actions that address this systemic failure is paramount.

Ecosystem-based adaptation includes “the sustainable management, conservation and restoration of ecosystems to provide services that help people adapt to the adverse effects of climate change”¹⁸. GEF will continue to support activities — primarily through Programs 1, 2, and 9 — that, while generating global biodiversity benefits as their primary purpose, also may provide nature-based adaptation solutions. These activities must be operationally feasible and help strengthen ecosystem resilience and maintain biodiversity in the face of climate change. This would include, for example, support to improving protected area management, and protected area system and site design (Programs 1 and 2) and biodiversity mainstreaming in production landscapes and seascapes (Program 9), among other potential entry points. Furthermore, the biodiversity strategy seeks to maintain biodiverse landscapes and seascapes at sufficient scale and extent to strengthen terrestrial and oceanic ecosystem integrity and the significant role these ecosystems play in the global carbon cycle, allowing these ecosystems to serve as major carbon stores and sinks. Securing ecosystem integrity through these programs will help maintain essential ecosystem services that help people cope with changes in water supplies, fisheries, incidence of disease, and agricultural productivity caused by climate change.

The CBD Strategic Plan for Biodiversity 2011-2020 and its Aichi targets form the global policy framework and entry point for harnessing synergy amongst the biodiversity-related conventions.⁹ The Strategic Plan has been recognized as such in various COP decisions or resolutions of the governing bodies for the other biodiversity-related conventions and ongoing work is under way in several conventions with a view to aligning their respective strategic frameworks even more strongly with the Strategic Plan. Hence, due to the inclusive and comprehensive nature of the GEF biodiversity strategy, ample opportunity exists for the inclusion of pertinent GEF-eligible activities, as prioritized in the country’s revised National Biodiversity Strategy and Action Plans (NBSAPs), to exploit this synergy amongst the conventions and advance shared objectives.

A contributing element for promoting sustainability of biodiversity is opportunistic engagement with the private sector. In the past, the GEF biodiversity focal area has supported numerous projects that demonstrate successful private sector engagement and have attracted significant private sector co-financing. Consistent with the GEF-6 private sector strategy, this focal area will encourage the use of a range of intervention models, including support for enabling policy environments, corporate alliances, and capacity building/incubation for innovation as appropriate to

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advance the goals of the Strategic Plan for Biodiversity 2011-2020. Each model may be used in different ways across several categories of private sector players, including capital providers, financial intermediaries, and other key partners (large corporations, small and medium enterprises, resource user groups, cooperatives, and individuals). Within that context, the biodiversity focal area will support projects that propose innovative engagement with the private sector and that aim to complement rather than replace public sector support.

**GENDER**

Rural women and men each play important but differentiated roles in biodiversity management, use, and conservation through their tasks and responsibilities in food production and provision, spanning the realm of agriculture, fisheries and forestry management. The type of knowledge resource managers possess varies by age, gender, and an individual’s associated roles and responsibilities. As daily natural resource managers, they influence the total amount of genetic diversity conserved or used. Consequently, they have different needs, priorities, and perspectives about the use of crops, plants, and animals. Access to or control over resources and biodiversity as well as education, training, information and control of the benefits of production also influences the type of knowledge that rural men and women have and how they use that knowledge. Women often take the lead in the selection and improvement of local plant varieties, as well as seed exchange and management, and thus play a critical role in the sustainable use of plant and genetic resources. In many areas they are also the primary collectors of wild foods in forests and they possess extensive knowledge of their location and characteristics. In spite of the important contributions that women make to the conservation and sustainable use of forest biodiversity and agrobiodiversity, women’s roles and knowledge are often overlooked or underestimated in biodiversity programs, projects and policies related to management of these and other ecosystems.

The CBD recognized the important role of women in achieving the objectives of the Convention from its initiation, and in the thirteenth paragraph of its preamble, Parties recognize “the vital role that women play in the conservation and sustainable use of biological diversity and affirm the need for the full participation of women at all levels of policy making and implementation for biological diversity conservation”. Subsequent decisions by the COP and recommendations from the Subsidiary Body on Scientific, Technical and Educational Advice (SBSTTA) have sought to ensure women’s participation in conservation and sustainable use of biodiversity, particularly agricultural biodiversity, and identify gender-specific ways in which to document and preserve women’s knowledge of biological diversity. Implementation of Article 8(j) calls for “Full and effective participation of women of indigenous and local communities in all activities of the programme of work”. The Nagoya Protocol recognizes “the vital role that women play in access and benefit-sharing” and calls particular attention to this role in its Articles 12 (traditional knowledge), 22 (capacity) and 25 (financial mechanism and resources). The preamble calls for the participation of women in decision- and policy-making surrounding access and benefit-sharing.

By and large, these decisions and recommendations mainly focus on participation as opposed to gender equality. In 2008, a Gender Plan of Action was approved at COP-9 to move the agenda forward towards gender equality. In 2010, in adopting the Strategic Plan for Biodiversity 2011-2020, the COP requested Parties “to mainstream gender considerations in the implementation of the Strategic Plan and its associated goals, the Aichi Targets, and indicators”; and recognized the need for capacity building,
including on gender mainstreaming, for effective national action. At COP-11, Parties further emphasized “the importance of gender mainstreaming in all programmes of work under the Convention as important to achieving the objectives of the Convention and the Strategic Plan for Biodiversity 2011–2020”.

Therefore, consistent with the GEF policy on gender mainstreaming, GEF projects funded under this strategy will not only acknowledge gender differences within their design but determine what actions are required to promote both women and men’s roles in biodiversity management as this is fundamental for sustaining biodiversity, particularly in specific ecosystems and project intervention types where specialized knowledge and management responsibilities have historically accrued to either women and men, respectively. Although comprehensive and systematic empirical knowledge on how women and men manage biodiversity in all ecosystems is inadequate at present, the critical role that each play in the management of particular ecosystems and project intervention types has been well documented, such as women’s role in the management of agrobiodiversity and men’s role in the sustainable use of wildlife. These opportunities will require particular focus. All project designs will seek to avoid adverse consequences for the most vulnerable groups, including indigenous peoples and local communities, especially women.

Project proponents will be required to conduct gender analysis as part of the socio-economic assessment during project preparation to ensure that the intervention design incorporates and recognizes the differences between rural women and men’s labor, knowledge, needs, and priorities. Projects will use gender-sensitive indicators and collect sex-disaggregated data that will be systemically recorded, reported and integrated into adaptive management responses at the project level. In addition, projects will use the GEF gender mainstreaming core indicators which will be aggregated for portfolio level monitoring and reporting purposes. Finally, given that the knowledge base on gender and biodiversity management is still evolving and being codified, the GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in biodiversity projects.
Goal and Objectives
The goal of the biodiversity focal area strategy is to maintain globally significant biodiversity and the ecosystem goods and services that it provides to society. To achieve this goal, the strategy encompasses four objectives:

- improve sustainability of protected area systems;
- reduce threats to biodiversity;
- sustainably use biodiversity; and
- mainstream conservation and sustainable use of biodiversity into production landscapes/seascapes and sectors.

The GEF-6 biodiversity strategy is composed of ten programs that directly contribute to implementing the Strategic Plan and achieving the Aichi Targets through a continuum of measures that address the most critical drivers of biodiversity loss across entire landscapes and seascapes. The programs include direct conservation/protection, threat-reduction, sustainable use, and biodiversity mainstreaming approaches. Each program provides a response to threats and opportunities that are spatially and thematically targeted, i.e., providing a focused and calibrated response in a specific ecosystem or location in a landscape or seascape. In addition, for the first time, the strategy addresses the most critical underlying driver of biodiversity loss: the failure to account for and price the full economic value of ecosystems and biodiversity.

In addition to the ten programs presented in the strategy, GEF will also provide support through the focal area set aside to countries to produce their 6th National Report to the CBD as well as national reporting obligations under the Cartagena Protocol and Nagoya Protocol that will be identified during upcoming COP-MOPs and that will come due during the GEF-6 period. The overwhelming majority of GEF-eligible countries (95%) have received support during GEF-5 to revise their NBSAP to be aligned with the Strategic Plan and the Aichi Targets. However, the few remaining countries that have not been able to submit a project proposal will remain eligible for support to revise their NBSAP during GEF-6. Consistent with past practice and the GEF project review criteria, projects submitted for funding in GEF-6 will have to demonstrate that the thematic areas addressed within the project have been prioritized within the NBSAP and are appropriately aligned with the Strategic Plan and the Aichi Targets.

In order to provide greater return on investment, the strategy prioritizes a series of Programs that meaningfully contribute to all four goals of the Strategic Plan and 14 of the 20 Aichi Targets. These programs also have the greatest potential for a “knock-on” effect to help achieve other Aichi Targets. Although not explicitly highlighted in the Aichi Targets, the strategy also incorporates elements of the new Strategic Plan on Biosafety, with a focus on implementation of National Biosafety Frameworks (NBF) as this remains unfinished business from previous GEF phases.

It is important to note that while Aichi Targets 1, 8, 17, 18, 19 and 20 are not supported through a targeted and specific biodiversity program, they will still receive direct and indirect support during GEF-6. First, awareness-raising as identified in Target 1 will be supported as an element of GEF projects and programs as appropriate, but not as a stand-alone activity. Experience from the GEF’s biodiversity portfolio
has demonstrated that investments in awareness-raising are not effective unless linked with an actual project intervention on biodiversity management or policy development. Second, contributions to Target 8 will be made both directly and indirectly through the implementation of the International Waters, Chemicals, and Land Degradation Focal Area strategies, respectively. Third, the GEF will have funded the development of revised NBSAPs during GEF-5 in almost all countries. Therefore, the implementation of priority actions within each country’s revised NBSAP will be supported through the entirety of the GEF-6 biodiversity strategy and specific GEF-6 integrated approaches, thus contributing to Target 17.10 Fourth, both Targets 18 and 19 are deemed as operational means to an end and their integration into the project design and implementation process will be encouraged as relevant to specific project designs. With regards to Target 20, GEF will track the total amount of co-financing leveraged through GEF biodiversity projects and actively encourage and promote such leverage, including through multi-focal area projects and other GEF projects that contribute directly and indirectly to the Aichi Targets. In sum, the breadth of the GEF-6 strategy provides ample opportunity for countries to prioritize GEF-supported investments, as defined in the revised NBSAP, to achieve the Aichi Targets.

The four objectives of the GEF strategy respond directly to the four goals of the Strategic Plan, but do so in a targeted way to help ensure that the GEF contribution to each goal and the associated targets will have the greatest impact per dollar invested. Annex 1 demonstrates the contribution of the objectives and programs of the GEF biodiversity strategy to the goals of the Strategic Plan and the associated Aichi Targets.

In addition, two of the GEF-6 integrated approaches, Taking Deforestation out of Commodity Supply Chains and Fostering Sustainability and Resilience for Food Security in Africa, will also make contributions to achieving the Aichi Targets, as will other GEF focal areas. Contributions of each pilot on integrated approaches and other GEF focal area strategies are also presented in Annex 2.

10 The GEF-6 integrated approaches are distinct from the biodiversity strategy and are described in the document, “Report on the Sixth Replenishment of the GEF Trust Fund” and can be found at http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.A.5.07.Rev_.01_Report_on_the_Sixth_Replenishment_of_the_GEF_Trust_Fund_May_22_2014.pdf
BD 1: IMPROVE SUSTAINABILITY OF PROTECTED AREA SYSTEMS

GEF support to the establishment and management of protected area systems and associated buffer zones and biological corridors has arguably been the GEF’s greatest achievement during the last 20 years. Supporting the management of protected areas is not only a sound investment in biodiversity conservation and sustainable use, but also provides significant additional economic and environmental benefits beyond the existence value of biodiversity.

The GEF defines a sustainable protected area system as one that: a) effectively protects ecologically viable and climate-resilient representative samples of the country’s ecosystems and provides adequate coverage of threatened species at a sufficient scale to ensure their long term persistence; b) has sufficient and predictable financial resources available, including external funding, to support protected area management costs; and c) retains adequate individual and institutional capacity to manage protected areas such that they achieve their conservation objectives.¹¹

GEF support under this objective will strengthen these fundamental aspects of protected area system sustainability: finance, representation, and capacity building leading to effective management. The GEF will continue to promote the participation and capacity building of indigenous peoples and local communities, especially women, in the design, implementation, and management of protected area projects through established frameworks such as indigenous and community conserved areas.¹² The GEF will also promote protected area co-management between government and indigenous peoples and local communities where such management models are appropriate.

Developing climate-resilient protected area systems remains a challenge because the scientific understanding and technical basis for informed decision-making on adaptation or resiliency measures are in their nascent stages; despite this significant challenge, the GEF will initiate support for the development and integration of adaptation and resilience management measures as part of protected area management projects; the first generation of projects of this type were seen in GEF-5.

¹¹ A protected area system could include a national system, a sub-system of a national system, a municipal-level system, or a local level system or a combination of these.

¹² Indigenous and Community Conserved Areas are natural sites, resources and species’ habitats conserved in voluntary and self-directed ways by indigenous peoples and local communities.
Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure

The GEF began to invest in improving financial sustainability of protected area systems in GEF-4, but system-wide funding gaps remain at the national level in many GEF-eligible countries. Restricted government budgets in many countries have reduced the financial support for protected area management and many are chronically underfunded and understaffed. Thus, new financing strategies for protected area systems are critical to reduce existing funding gaps and improve management. Furthermore, protected area agencies and administrations are often ill-equipped to respond to the commercial opportunities that protected areas provide through the sustainable use of biodiversity. Hence targeted capacity building is also required.

Although considerable progress has been made in implementing GEF’s protected area finance and management strategy in some countries, the application of the strategy has been uneven regarding the systematic closing of the financing gap at the national level and ensuring that increased revenues are being directed towards more effective management of globally significant habitat. Therefore, in GEF-6, support to improving protected area financial sustainability and effective management will be explicitly directed towards globally significant protected areas within the national system, per the criteria in Annex 3. Projects will identify the protected areas to which increased funding will be directed to improve management as a result of the GEF investment while recognizing that a proportion of any revenue increase will be absorbed by system-level administration and management costs.

The GEF-6 strategy prioritizes the development and implementation of comprehensive, system-level financing solutions. Previous GEF projects have too often been focused on business plans and strategy development, with minimal project resources or time dedicated to actual implementation of the financing strategies. In addition, experience in the portfolio since GEF-4 has demonstrated the need for a long-term plan for reducing the funding gap for protected area management, thus, individual GEF projects must be part of a larger sustainable finance plan and context, and countries may require a sequence of GEF project support over a number of GEF phases.

GEF-supported interventions will use tools and revenue mechanisms that are responsive to specific country situations (e.g., conservation trust funds, systems of payments for environmental services, debt-for-nature swaps, economic valuation of protected area goods and services, access and benefit sharing agreements, etc.) and draw on accepted practices developed by the GEF and others. The GEF will also encourage national policy reform and incentives to engage the private sector (concessions, private reserves, etc.) and other stakeholders to improve protected area financial sustainability and management.
Program 2: Nature’s Last Stand: Expanding the Reach of the Global Protected Area Estate

TEEB noted that protected areas provide ecosystem services worth more than the costs, including the opportunity costs, of setting up and managing those areas. Nevertheless, the time window for expansion of the protected area estate to bring under-represented ecosystems and threatened species under protection is limited and a sense of urgency remains as land-use pressure increases and populations expand. In many countries, opportunities for expansion of the protected area estate may lie in IUCN categories IV-VI, thus placing increasing importance of using protected areas to promote sustainable use of biodiversity.

This program will contribute to the achievement of Aichi Target 11 to conserve 17% of terrestrial and inland water, and 10% of coastal and marine areas. However, the program will require that protected areas established with GEF support are globally significant, as defined by the criteria in Annex 3. This program will allow for expansion of the estate and management of these new sites. Projects will be expected to link plans for expansion with the associated financing strategies supported through Program One, as has been the practice in GEF-5.

Only about 2.35 million km², 0.65% of the world’s oceans and 1.6% of the total marine area within Exclusive Economic Zones are currently protected. The GEF will continue to address this disparity through investments to increase the representation of globally significant marine ecosystems in protected area systems. The GEF will support efforts to address the marine ecosystem coverage gap within national level systems through the creation and effective management of coastal and near shore protected area networks, including no-take zones, to conserve and sustainably use marine biodiversity. As per Program 6, a particular focus of expanding marine area coverage will be to increase the area of coral reefs within Marine Protected Areas (MPAs), thus making a direct contribution to the achievement of Aichi Target 10. The program will target the identification and establishment of MPA networks or of large MPAs whose management will help reduce pressures on coral reefs.

Many countries have also identified national gaps in the coverage of terrestrial ecosystems and threatened species, which coincide with existing global representation gaps. The GEF will support the creation of new protected areas to expand terrestrial and inland water ecosystem representation within protected area systems. Conserving habitat for landraces and wild crop relatives of species of economic importance may also be included as part of this effort to reduce representation gaps as referenced in Program Seven. The GEF will also support the creation of new protected areas that improve the coverage of the spatial range of threatened species.

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Target 12 of the Aichi Biodiversity Targets states that “by 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.” According to IUCN, as of 2013 there were over 20,000 threatened species globally. The main threats to these species involve a) habitat destruction and fragmentation; b) climate change; c) introduction of exotic species; d) pollution; e) over-exploitation of resources; and f) hunting, poaching, and illegal trade of endangered species. Among many illustrative examples are the Chinese giant salamander (*Andrias davidianus*) previously widely distributed in China but now almost completely wiped out due to over-exploitation as food, and the leatherback sea turtle (*Dermochelys coriacea*) considered Critically Endangered due to the theft of eggs, illegal hunting, loss of nesting habitat and the ingestion of plastic debris. While other GEF programs actively address many of these threats, additional effort is required to address hunting, poaching and illegal trade of endangered species in particular.

15 Critically endangered (CR), Endangered (CN), and Vulnerable (VU) per the IUCN Red List.
overall biological diversity of their habitat. While rhinos are not as robust environmental engineers as elephants, they also play an important role in opening up pathways and seed dispersal avenues in dense thickets that are otherwise impenetrable to antelope and other species. In addition, rhino can add significantly to the heterogeneity of the system and increase biodiversity by making available new ecological niches, such as grazing areas.16

Armed militias are using increasingly sophisticated communication technologies, weapons, and transport that are overwhelming the capacity of Governments to stop them. Sharp increases in the incidences of poaching have resulted in a call by national and international organizations to increase efforts to stop poachers that threaten not only wildlife but also humans while undermining the economic development that wildlife-based tourism brings to rural communities and national governments. Of equal importance is the need to tackle the illegal trafficking of and demand for these products in the markets of Asia and elsewhere, including local markets.

This program will address both supply and demand aspects of poaching to build monitoring and enforcement capacity and using social media, education, and awareness-raising to staunch the demand for these products and pressure Governments to improve enforcement of existing laws.

Within the context of the CBD and Aichi Target 12, the GEF will support strengthening decision making processes including legislation and its implementation, strategic planning, and capacity of national agencies in Africa engaged in reducing poaching and illegal trade of tusks, horns, and associated by-products. Support will include:

- building the capacity of environmental law enforcement agencies and the judiciary to reduce poaching inside and outside of the protected area system and improving border enforcement through cross-sectoral collaboration;
- developing action plans where governments commit to an adequate budget for their implementation, effectively contributing to the sustainability of these activities; and
- increasing cooperation within and between law enforcement agencies and relevant international organizations to mobilize political support for environmental law enforcement.

Perhaps most importantly, efforts must be made to reduce consumer demand for illegally traded wildlife by raising awareness of the scale and impacts of illegal wildlife trade on biodiversity and the environment, livelihoods, and human health, its links to organized crime, and the availability of sustainable alternatives. The erosion of the rule of law and the use of illegal trade to finance conflict impacts disproportionately on women and children who are most affected by conflict and violence, loss of livelihoods and crime. The GEF will support activities to catalyze high-level political will to fight wildlife trafficking, and secure the shared commitment of government (at national and local levels), private land owners, local communities, and international stakeholders.

The program will make a concerted effort to respond to the threat of extinction of species that are critical for the ecological and economic sustainability of many protected areas in sub-Saharan Africa. This will not preclude the submission of proposals from other countries or regions where poaching and illegal trade poses an imminent danger to a threatened species. For example, wildlife poaching and illegal trade in Eurasia, including Asia, Russia, and Central Asia, is also increasing dramatically. The demand for high-value wildlife products in Asian markets has helped fuel a dramatic upsurge of poaching of Asian elephants and rhinos, as well as tigers and other wildlife. The GEF will complement anti-poaching work in Africa through a

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similar array of interventions at source sites for rhino and elephants and other wildlife in Asia. Efforts will include:

- strengthening national legislation, institutions, and law enforcement to reduce poaching;
- strengthening science-based wildlife monitoring, education and awareness; and;
- reducing demand for illegal wildlife products.

This program will be developed and implemented as a pilot to best evaluate how GEF can engage with the relevant stakeholders, forge new partnerships, and deliver financial resources and the technical assistance required when addressing illegal trade of wildlife and other species. Lessons learned from Program Three will provide insights for possible future GEF investments addressing threats to threatened species.

Program 4: Prevention, Control, and Management of Invasive Alien Species

Invasive alien species (IAS) are non-native organisms that cause, or have the potential to cause harm to the environment, economy and human health. The globalization of trade, travel, and transport is greatly increasing the rate at which IAS move around the world, as well as the diversity and number of species being moved. IAS can exert a heavy economic toll on national governments, industries, and the private sector. For example, the estimated damage from invasive species worldwide totals more than $1.4 trillion or 5% of the global economy.\(^\text{17}\) IAS can impact human health through disease epidemics, and pathogens and parasites may themselves be IAS or may be introduced by invasive vectors.

Despite the various COP decisions identifying the need for Parties to address IAS as a priority biodiversity management problem, only 11 projects focused on IAS have been submitted for funding to the GEF in the past 20 years and only one project in the first three years of GEF-5. These national and regional projects have benefited 30 countries, including 20 island states and two continental countries that invested in IAS management in island archipelagos under their jurisdiction.

Islands are particularly susceptible to the impacts of IAS. Islands are recognized as having exceptionally high numbers of endemic species, with 15% of bird, reptile and plant species on only 3% of the world’s land area. The conservation significance of islands is highlighted by global analyses showing that 67% of the centers of marine endemism and 70% of coral reef hotspots are centered on islands.

The isolated nature of islands can also provide some advantages in efforts to minimize the spread and impact of IAS in a cost-efficient manner. Terrestrial and freshwater IAS have difficulty colonizing islands on their own accord. Furthermore, the contained nature and relatively small size of islands enables the implementation of cost-effective response measures to prevent introductions, and to control and manage IAS that become established. Therefore, during GEF-6 this program will focus on island ecosystems. This focus is driven not only by programming demand, but by an ecological imperative: IAS are the primary cause of species extinctions on island ecosystems and if not controlled can degrade critical ecosystem services on islands such as the provision of water. The focus also responds to the opportunity offered by the stronger interest to advance IAS management on the part of island states and countries with island archipelagos, and the opportunity that island ecosystems provide to demonstrate success in addressing the problem of IAS. Such success may in turn generate greater attention and

interest in the comprehensive pathways management approach being promoted under this program.

The GEF will support the implementation of comprehensive prevention, early detection, control and management frameworks that emphasize a risk management approach by focusing on the highest risk invasion pathways. Targeted eradication will be supported in specific circumstances where proven, low-cost, and effective eradication would result in the extermination of the IAS and the survival of globally significant species and/or ecosystems. While the program will focus on island ecosystems and will strongly engage with island states to advance this agenda, projects submitted by continental countries that address IAS management through the comprehensive pathways approach outlined above will also be supported.

Program 5: Implementing the Cartagena Protocol on Biosafety

The Cartagena Protocol on Biosafety (CPB) seeks to ensure an adequate level of protection in the field of the safe transfer, handling, and use of living modified organisms resulting from modern biotechnology that may have adverse effects on biological diversity. While rooted in the precautionary approach, the CPB recognizes modern biotechnology as having great potential for the promotion of human well-being, particularly in meeting critical needs for food, agriculture, and health care. The Protocol sets the parameters to maximize the benefit that biotechnology has to offer, while minimizing the possible risks to the environment and to human health.

GEF’s strategy to build capacity to implement the CPB prioritizes the implementation of activities that are identified in country stock-taking analyses and in the COP guidance to the GEF, in particular the key elements in the recently adopted framework and action plan for capacity building for effective implementation of the CPB at the sixth COP serving as the Meeting of the Parties to the CPB (COP-MOP-6) and the recently adopted Strategic Plan for Biosafety, 2011-2020 agreed at COP-MOP 6. By the end of GEF-5, as many as 64 countries will have received support for implementation of their National Biosafety Frameworks (NBFs); however, another 71 eligible countries have yet to request support to implement their NBFs. GEF-6 will provide the opportunity for these countries to seek support for these initial phases of basic capacity building.

The implementation of National Biosafety Frameworks in these remaining countries will be undertaken when the characteristics of the eligible country, as assessed in the stock-taking analysis, recommend a national approach for the implementation of the CPB in that country. The GEF will provide support to eligible countries through regional or sub-regional projects when there are opportunities for cost-effective sharing of limited resources and for coordination between biosafety frameworks to support CPB implementation. GEF experience has shown that these kinds of approaches are effective where stock-taking assessments support the potential for coordinating biosafety frameworks, interchange of regional expertise, and capacity building in common priority or thematic areas to develop the capacities of groups of countries lacking competences in relevant fields.

The GEF will support thematic projects addressing some of the specific provisions of the Cartagena Protocol. These projects should be developed at the regional or sub-regional level and build on a common set of targets and opportunities to implement the protocol beyond the development and implementation of NBFs.

The GEF will support the ratification and implementation of the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the CPB.
Coral reefs cover only 0.2% of the ocean’s floor, but they contain 25% of all marine species. For many countries, coral reef ecosystems are critical to fisheries, tourism, and coastal protection, and offer opportunities for other kinds of exploitation such as bio-prospecting, fish aquaria, and jewellery. TEEB estimated that coral reef ecosystems provide society with living resources and services worth about $375 billion each year.

Despite their economic value, coral reef ecosystems are threatened by large disturbances. The most recent survey (2008) conducted by the Global Coral Reef Monitoring Network concluded that 19% of global coral reefs are unlikely to recover, 15% are in a critical stage (e.g., suffered a bleaching event, some mortality), and 20% are threatened by local activity. The combination of local (e.g., over-exploitation, physical damage), regional (e.g., pollution and sedimentation runoff from the adjacent watersheds), and global threats (e.g., ocean warming and acidification), make coral reef ecosystems increasingly susceptible to disturbance or damage.

Overfishing is the most important local threat, affecting more than 55% of the world’s coral reef ecosystem; coastal development and watershed-based pollution each threaten about 25%; and marine-based pollution and damage from ships threaten about 10%. Annex 5 provides an overview of the status of coral reef ecosystems and threats in each of five major coral reef regions.

Because coral reef resilience to bleaching and other stressors can be improved by a balanced biological and functional diversity with sufficient species interactions, the program will prioritize working in coral reef ecosystems that fulfill the following criteria:

- Globally significant source population (site is responsible for the persistence of a significant proportion of global population of coral reef); and
- Bioregionally restricted coral reef (site is responsible for persistence of a significant proportion of rare coral reef species or important for the life history of a coral reef ecosystem).

This program will support the development of the three inter-dependent components outlined below that are focused on threat reduction and sustainable
use and that complement the investments in Marine Protected Areas under Program One and Two.

The GEF will support increasing the area of coral reefs situated within MPAs. An important spatial factor for coral reef resilience is the connectivity among and within coral reefs. Therefore, the development of MPA networks or of large MPAs will be targeted. Programs 1 and 2 will prioritize this expansion and secure resources for the management of these new areas.

The GEF will support the development, adoption and enforcement of policy and regulatory frameworks and legislation to mitigate marine-based pollution and damage to coral reef ecosystems. The GEF will also support national and international trade regulations for reef products, e.g., aquarium fish, corals, and shells. This could include support to capacity building and encouraging certification and monitoring systems.

The GEF will support the implementation of integrated coastal management that better addresses local marine pressures on coral reef ecosystems. This will include support for the development of community-level rights-based management areas at the boundaries of MPAs. There are many different types of systems of property rights and different ways in which these are used to manage small scale near-shore fisheries. Property rights in these fisheries vary greatly in terms of their security (or quality of title), durability (permanence), transferability, and exclusivity. These four characteristics are the basis for the legal empowerment that comes with rights-based approaches to fisheries management. In addition, holders of property rights can also vary. Women have limited property rights and that significantly impacts their ability to participate in developing sustainable small scale fisheries, therefore, using a gender perspective will be critical to improve marine conservation and fisheries management. Under the GEF strategy, Fisheries Right-Based Management refers to any system of allocating fishing rights to fishers, fishing vessels, enterprises, cooperatives or fishing communities that ensures the sustainable management of the targeted marine resource and its ecosystem. The income generated by the payment for access to the rights-based management areas will be used to promote coral reef ecosystem conservation and sustainable use. Both within and outside marine management areas, The GEF will focus on those actions that enhance coral reef health and resilience at the boundaries of the MPAs, including the application of fisheries management tools (restriction of fishing gear, regulations of fishing grounds and fishing seasons), the implementation of regulations for tourism (zoning, infrastructure development), and shipping (discharge from ships, shipping lanes, infrastructure development).

This targeted support to Integrated Coastal Management will address direct pressures on coral reefs (the “+” of the Program), and therefore complement current GEF-funded Ridge to Reef projects which primarily aim to reduce land-based pollution and promote Integrated Water Resources Management.

Program 7: Securing Agriculture’s Future: Sustainable Use of Plant and Animal Genetic Resources

The conservation and sustainable use of the genetic diversity of cultivated plants, domesticated animals, of their wild relatives and of other socio-economically and culturally valuable species, including aquatic, forest, microbial and invertebrate genetic resources, is central to achieving food security and nutrition of a growing world population, improving rural livelihoods, developing more sustainable agriculture practices, and improving ecosystem function and the provision of ecosystem services in production landscapes. As climates and production environments change, in often unpredictable ways, genetic diversity is also essential to providing the necessary adaptability and resilience.

Crop and animal genetic diversity in many production systems have eroded significantly. Threats to genetic diversity are associated with the continuing use of unsustainable approaches that drive excessive use of fertilizers and pesticides, pollution of aquifers and waterways, declining levels of groundwater, and mismanagement of soils.
Land use changes and fragmentation threaten wild relatives of domestic plants and animals. There has also been significant loss of crop wild relatives (genetic and species diversity) from production and natural ecosystems. Program Two of the biodiversity strategy will provide support to establish protection for Crop Wild Relatives (CWR) in-situ through CWR Reserves. Program One of the biodiversity strategy may generate revenues to support active management of CWR in existing protected areas and in future CWR Reserves.

Figure One below identifies priority genetic reserve locations for wild relatives for 14 major global food crops (finger millet, barley, sweet potato, cassava, banana/plantain, rice, pearl millet, garden pea, potato, sorghum, wheat, faba bean, cowpea and maize). The centers of crop genetic diversity indicated by the enclosed lines are likely to contain other priority sites for other crop gene pools. GEF investment in CWR reserves would focus on these areas; however, support to managing priority CWR reserves mapped and identified at the national level that complement global level assessments undertaken by FAO and others would also be eligible if the CWR in question were of global significance.

This program will focus its support on in-situ conservation through farmer management which allows continuing evolution and adaptation of cultivated plants and domesticated animals. This approach also meets the needs of rural communities, including indigenous peoples and local communities, especially women, who often depend on agricultural biodiversity for their livelihoods through its contribution to food security and nutrition, medicines, fodder, building materials and other provisioning services as well as through support for ecosystem function. Women’s participation will be particularly critical in this program, given the primary role that women play in agrobiodiversity management. In-situ conservation in production landscapes helps improve sustainability and resilience. A recent analysis confirmed that agricultural biodiversity played a central role in the strategies adopted by rural communities adapting to climate change.

The GEF will concentrate it support on the sustainable use of plant genetic resources in Vavilov centers of diversity. Results from this program may also generate important co-benefits for the International Treaty on Plant Genetic Resources for Food and

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**Figure 1. Global Priorities for Genetic Reserve Locations**

- **Central America** – priority CWR genetic reserve locations for sweet potato (Ipomoea), potato (Solanum) and maize (Zea) wild relatives.
- **Montane Ethiopia** – priority CWR genetic reserve locations for pearl millet (Pennisetum) and garden pea (Pisum) wild relatives.
- **The Middle East** – priority CWR genetic reserve locations for garden peas (Pisum), wheat (Triticum and Aegilops) and faba beans (Vicia) wild relatives.
- **South America** – priority CWR genetic reserve locations for barley (Hordeum), potato (Solanum) and cassava (Manihot) wild relatives.
- **Asia and the Far East** – priority CWR genetic reserve locations for rice (Oryza) wild relatives.
- **Sub-Saharan Africa and Madagascar** – priority CWR genetic reserve locations for finger millet (Eleusine) and cowpea (Vigna) wild relatives.


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Agriculture. The GEF will focus on innovations to current production systems and practices that:

- Maintain and strengthen different production systems and their elements, including agriculture practices based on local and traditional knowledge, that allow continued evolution and adaptation (adequate population sizes, seed systems, movement of useful materials, and access to ex-situ materials);
- Link genetic diversity maintenance to improved food security and economic returns for rural communities and farmers (including local market access and market regulations);
- Develop policies, strategies, legislation, and regulations that shift the balance in agricultural production in favor of diversity rich approaches. These include support for the adoption of appropriate fiscal and market incentives to promote or conserve diversity on-farm and across the production landscape;
- Strengthen capacity of the agricultural development, extension and research communities and institutions that are needed for in-situ conservation, so that agricultural biodiversity is embedded in sustainable intensification and adaptation to climate change; and
- Strengthen the capacities of community and smallholder organizations and farmers (both men and women) to participate in the identification, development, and implementation of solutions.

Program 8: Implementing the Nagoya Protocol on Access and Benefit Sharing

The Nagoya Protocol on Access and Benefit Sharing (ABS) provides a legal framework for the effective implementation of the third objective of the Convention on Biodiversity (CBD). Ninety-two CBD parties have signed and 25 have ratified the Nagoya Protocol. The Nagoya Protocol was adopted by the Parties of the Convention on Biodiversity at the 11th meeting of the Parties on 29th October, 2010 in Nagoya, Japan. The Protocol will enter into force on the 90th day after the date of deposit of the 50th instrument of ratification, acceptance, approval, or accession.

The GEF will support implementation of the Nagoya Protocol using resources from the GEF Trust Fund and, in parallel, from the Nagoya Protocol Implementation Fund (NPIF). The successful implementation of ABS at the national level has the potential to make considerable contributions to biodiversity conservation and sustainable use, and thus is relevant to all Aichi Targets and many of the programs presented in the GEF biodiversity strategy. As such, projects developed for funding under other GEF programs will be encouraged to explore the potential and relevance of ABS to contribute to specific project and program objectives. However, given the incipient nature of the thematic area, and the importance that the COP has placed on ABS both in the way guidance is presented to the GEF and the strong emphasis that has been given on capacity building at this stage, this program is presented as a discrete and important element of the GEF biodiversity strategy and thus merits its own program of support.

GEF Trust Fund Support. Projects funded under the GEF Trust Fund will support national and regional implementation of the Nagoya Protocol and, if still required, targeted capacity building to facilitate ratification and entry into force of the Protocol. As such, the GEF will support the following core activities to comply with the provisions of the Nagoya Protocol:

21 Please note that at its May 2014 Council Meeting, the GEF Council decided to extend the operation of the NPIF to December 31, 2020 for operational reasons to allow continuation of project preparation for and implementation of already approved projects. Consistent with the May 2011 GEF Council decision on the NPIF, the Council will not approve new PIFs under the NPIF after 30 June 2014.
Stocktaking and assessment. The GEF will support gap analysis of ABS provisions in existing policies, laws and regulations, stakeholder identification, user rights and intellectual property rights, and assess institutional capacity including research organizations.

Development and implementation of a strategy and action plan for the implementation of ABS measures. (e.g. policy, legal, and regulatory frameworks governing ABS, National Focal Point, Competent National Authority, Institutional agreements, administrative procedures for Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), monitoring of use of genetic resources, compliance with legislation and cooperation on trans-boundary issues); and

Building capacity among stakeholders (including indigenous and local communities, especially women) to negotiate between providers and users of genetic resources. Countries may consider institutional capacity-building to carry out research and development to add value to their own genetic resources and traditional knowledge associated with genetic resources. The GEF will also support the participation in the ABS Clearing-House mechanism as soon as the Clearing-house is operational, including in its piloting.

The GEF will also enhance national implementation of the Nagoya Protocol through regional collaboration.

Regional collaboration would help build capacity of countries to add value to their own genetic resources and traditional knowledge associated with genetic resources and avoid duplication of regulatory mechanisms while encouraging intra-regional collaboration. Regional collaboration can also address the financial and human resource constraints faced by small or least developed countries through sharing regulatory and scientific resources.

**Nagoya Protocol Implementation Fund (NPIF) Support.** The primary objective of the NPIF is to facilitate early entry into force and create enabling conditions at national and regional levels for implementation of the Protocol. The NPIF will support opportunities leading to the development and implementation of ABS agreements between providers and users of genetic resources that actively inform national implementation of the Nagoya Protocol. Providers would include Parties to the CBD as well as those stakeholders providing access to resources on the ground, including indigenous peoples and local communities. Users can include Parties of the CBD as well as those interested in the resources including, for example, sectors like the pharmaceutical industry, biotechnology, ornamental horticulture, natural personal care and cosmetics, and museums.

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22 Ibid.
Protected areas are the conservation community’s most successful management response to conserve and sustainably use biodiversity. However, protected areas do not exist as isolated islands of tranquility where evolutionary processes continue uninterrupted by humans. Rather, protected areas are often located in mixed-use landscapes and seascapes where natural resources are managed or exploited — at times unsustainably — to satisfy human needs for food, water, wood, energy, and minerals. These resource uses often unintentionally degrade biodiversity within and outside protected areas. In addition, production landscapes and seascapes also provide habitat to globally significant biodiversity. Managing the human-biodiversity interface requires additional and innovative approaches that help maintain the integrity of the protected area estate while ensuring persistence of biodiversity in more expansive geographies.

The GEF has for the past decade worked to embed biodiversity conservation and sustainability objectives in the management of wider production landscapes and seascapes through support to an array of policies, strategies, and practices that engage key public and private sector actors in order to conserve and sustainably use biodiversity. This process, referred to as “biodiversity mainstreaming”, has focused primarily on the following suite of activities: a) developing policy and regulatory frameworks that remove perverse subsidies and provide incentives for biodiversity-friendly land and resource use that remains productive but that does not degrade biodiversity; b) spatial and land-use planning to ensure that land and resource use is appropriately situated to maximize production without undermining or degrading biodiversity; c) improving and changing production practices to be more biodiversity friendly with a focus on sectors that have significant biodiversity impacts (agriculture, forestry, fisheries, tourism, extractives); and d) piloting an array of financial mechanisms (certification, payment for environmental services, access and benefit sharing agreements, etc.) to help incentivize actors to change current practices that may be degrading biodiversity.

The GEF will continue to support these activities during GEF-6 but with a renewed emphasis on ensuring that interventions are spatially targeted and
thematically relevant to conserving or sustainably using globally significant biodiversity. Through more careful targeting, support under this program can better deliver multiple conservation outcomes: sustaining biodiversity in the production landscape and seascape which will simultaneously secure the ecological integrity and sustainability of protected area systems. In addition, successful biodiversity mainstreaming in the GEF portfolio has been a long-term process, often requiring multiple and complementary projects that span numerous GEF phases. In order for biodiversity mainstreaming to achieve impacts at the scale necessary to advance the related Aichi Targets, a series of investments by GEF and other donors within a larger-scale planning and management context may be required. Projects in GEF-6 and onward will be required to frame GEF support to biodiversity mainstreaming accordingly to increase the likelihood of success and impact.

This program will also support ecosystem restoration in specific locations where restoration is deemed essential to help ensure the persistence of globally important biodiversity in the production landscape and seascape; particularly in areas adjacent to protected areas.

Program 10: Integration of Biodiversity and Ecosystem Services into Development and Finance Planning

The Millennium Ecosystem Assessment provided a conceptual framework that facilitated a comprehensive understanding of the values of biodiversity to society beyond its mere existence value as depicted in Figure 2. Numerous organizations and projects have used this conceptual framework to estimate the value of biodiversity to society through the goods and services it provides, including the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) partnership, The Natural Capital Project, TEEB, the LAC Biodiversity Superpower initiative and numerous GEF-funded projects. In addition, the CBD Strategic Plan identifies Aichi Target 2, to which this program will make a considerable contribution, as critical to addressing a key underlying driver of biodiversity loss.

Although a number of approaches are currently being used to recognize, demonstrate, and capture the value of biodiversity and ecosystem services, a mismatch remains between valuation and development policy and financing. Valuation is not leading to the development of policy reforms needed to mitigate the drivers of biodiversity loss and encourage sustainable development through the better management of biodiversity and natural capital, nor is it triggering changes in the use and scale of public and private finance flows on the scale necessary to address threats. Policy and finance reforms must accompany valuation so that the finance and development decisions that impact natural ecosystems and biodiversity include incentives and price signals that result in more cost effective and sustainable biodiversity management.

This program will complement the work undertaken in Program Nine and will pilot national level interventions that link biodiversity valuation and economic analysis with development policy and finance planning. The outcome from these projects will be biodiversity valuation that informs policy instruments and fiscal reforms designed to mitigate perverse incentives leading to biodiversity loss. These may be linked to larger policy reforms being undertaken as part of the development policy dialogue, development policy operations, or other efforts. It will also include specific support to reform finance flows, for instance through public expenditure reviews, and to operationalize innovative finance mechanisms such as payments for ecosystem services, habitat banking, aggregate offsets, and tradable development rights and quotas.
**FIGURE 2. LINKAGES BETWEEN ECOSYSTEM SERVICES AND HUMAN WELL-BEING**

**ECOSYSTEM SERVICES**

- **Provisioning**
  - Food
  - Fresh water
  - Wood and fiber
  - Fuel
  - ...

- **Regulating**
  - Climate regulation
  - Flood regulation
  - Disease regulation
  - Water purification
  - ...

- **Cultural**
  - Aesthetic
  - Spiritual
  - Educational
  - Recreational
  - ...

**LIFE ON EARTH - BIODIVERSITY**

**CONSTITUENTS OF WELL-BEING**

- **Security**
  - Personal safety
  - Secure resource access
  - Security from disasters

- **Basic material for good life**
  - Adequate livelihoods
  - Sufficient nutritious food
  - Shelter
  - Access to goods

- **Health**
  - Strength
  - Feeling well
  - Access to clean air and water

- **Good social relations**
  - Social cohesion
  - Mutual respect
  - Ability to help others

- **Freedom of choice and action**
  - Opportunity to be able to achieve what an individual values doing and being

Source: Millennium Ecosystem Assessment

**ARROW’S COLOR**
Potential for mediation by socioeconomic factors
- Low
- Medium
- High

**ARROW’S WIDTH**
Intensity of linkages between ecosystem services and human well-being
- Weak
- Medium
- Strong

THE GEF-6 BIODIVERSITY STRATEGY 25
BIODIVERSITY FOCAL AREA SET-ASIDE

Countries will be able to access the focal area set-aside funds (FAS) to implement enabling activities. Enabling activity support could be provided for all GEF-eligible countries to produce their 6th National Report to the CBD as well as national reporting obligations under the Cartagena Protocol and Nagoya Protocol that will be identified during upcoming COP-MOPs and that will come due during the GEF-6 period.

The remaining funds in FAS will be used for a variety of priorities. The first is to contribute to the Sustainable Forest Management program and to the following integrated approaches to be piloted in GEF-6: Taking Deforestation out of Commodity Supply Chains, and Fostering Sustainability and Resilience for Food Security in Africa. The FAS will also complement biodiversity investments at the national level through participation in global, regional or multi-country projects that meet some or all of the following criteria:

- support priorities identified by the COP of the CBD and in particular the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets;
- relevant to the objectives and programs of the GEF-6 biodiversity strategy;
- high likelihood that the project will have a broad and positive impact on biodiversity;
- potential for replication;
- global demonstration value;
- potential to catalyze private sector investment in biodiversity conservation and sustainable use; and
- contribute to global conservation knowledge through formal experimental or quasi-experimental designs that test and evaluate the hypotheses embedded in project interventions.
Results Framework

Goal:
■ Maintain globally significant biodiversity and the ecosystem goods and services it provides to society.

Impacts:
■ Biodiversity conserved and habitat maintained in national protected area systems.
■ Conservation and sustainable use of biodiversity in production landscapes and seascapes.

Indicators:
■ Intact vegetative cover and degree of fragmentation in national protected area systems measured in hectares as recorded by remote sensing.
■ Intact vegetative cover and degree of fragmentation in production landscapes measured in hectares as recorded by remote sensing.
■ Coastal zone habitat (coral reef, mangroves, etc.) intact in marine protected areas and productive seascapes measured in hectares as recorded by remote sensing and, where possible, supported by visual or other verification methods.

Corporate Level Outcome Targets:
■ 300 million hectares of landscapes and seascapes under improved biodiversity management.

Gender Indicators:
■ Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels.

24 The achieved short-term effects of the portfolio’s outputs.

25 Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women’s empowerment and assess results/progress.

Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

23 Long term effects of the portfolio investment, target area for impacts would be 300 million hectares.
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<tr>
<th>FOCAL AREA OBJECTIVES</th>
<th>PROGRAMS</th>
<th>EXPECTED OUTCOMES AND INDICATORS</th>
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| **Objective 1:** Improve sustainability of protected area systems | Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure | Outcome 1.1. Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management.  
Indicator 1.1: Funding gap for management of protected area systems and globally significant protected areas.  
Outcome 1.2: Improved management effectiveness of protected areas.  
Indicator 1.2: Protected area management effectiveness score. |
|                      | Program 2: Nature’s Last Stand: Expanding the Reach of the Global Protected Area Estate | Outcome 2.1 Increase in area of terrestrial and marine ecosystems of global significance in new protected areas and increase in threatened species of global significance protected in new protected areas.  
Indicator 2.1 Area of terrestrial and marine ecosystems and number of threatened species.  
Outcome 2.2: Improved management effectiveness of new protected areas.  
Indicator 2.2: Protected area management effectiveness score. |
| **Objective 2:** Reduce threats to globally significant biodiversity | Program 3: Preventing the Extinction of Known Threatened Species | Outcome 3.1: Reduction in rates of poaching of rhinos and elephants and other threatened species and increase in arrests and convictions (baseline established per participating country)  
Indicator 3.1: Rates of poaching incidents and arrests and convictions. |
|                      | Program 4: Prevention, Control and Management of Invasive Alien Species | Outcome 4.1 Improved management frameworks to prevent, control, and manage invasive alien species (IAS).  
Indicator 4.1: IAS management framework operational score.  
Outcome 4.2 Species extinction avoided as a result of IAS management (if applicable)  
Indicator 4.2 Sustainable populations of critically threatened species. |
|                      | Program 5: Implementing the Cartagena Protocol on Biosafety (CPB) | Outcome 5.1 Adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health (both women and men), and specifically focusing on transboundary movements  
Indicator 5.1: National biosafety decision-making systems operational score. |
<table>
<thead>
<tr>
<th>FOCAL AREA OBJECTIVES</th>
<th>PROGRAMS</th>
<th>EXPECTED OUTCOMES AND INDICATORS</th>
</tr>
</thead>
</table>
| **Objective 3:** Sustainably use biodiversity                                        | Program 6: Ridge to Reef+: Maintaining Integrity and Function of Coral Reef Ecosystems | Outcome 6.1. Integrity and functioning of coral reef ecosystems maintained and area increased.  
Indicator 6.1 Area of coral reef ecosystems that maintain or increase integrity and function as measured by number of coral species and abundance both outside and inside MPAs. |
|                                                                                      | Program 7: Securing Agriculture’s Future: Sustainable Use of Plant and Animal Genetic Resources | Outcome 7.1 Increased genetic diversity of globally significant cultivated plants and domesticated animals that are sustainably used within production systems.  
Indicator 7.1 Diversity status of target species. |
|                                                                                      | Program 8: Implement the Nagoya Protocol on ABS                          | Outcome 8.1 Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the provisions of the Nagoya Protocol  
Indicator 8.1 National ABS frameworks operational score. |
| **Objective 4:** Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes and production sectors | Program 9: Managing the Human-Biodiversity Interface                      | Outcome 9.1 Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management.  
Indicator 9.1 Production landscapes and seascapes that integrate biodiversity conservation and sustainable use into their management preferably demonstrated by meeting national or international third-party certification that incorporates biodiversity considerations (e.g. FSC, MSC) or supported by other objective data.  
Outcome 9.2 Sector policies and regulatory frameworks incorporate biodiversity considerations.  
Indicator 9.2 The degree to which sector policies and regulatory frameworks incorporate biodiversity considerations and implement the regulations. |
|                                                                                      | Program 10: Integration of Biodiversity and Ecosystem Services into Development & Finance Planning | Outcome 10.1 Biodiversity values and ecosystem service values integrated into accounting systems and internalized in development and finance policy and land-use planning and decision-making.  
Indicator 10.1 The degree to which biodiversity values and ecosystem service values are internalized in development, finance policy and land-use planning and decision making. |
The Global Environment Facility
Annexes
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<th>GEF Biodiversity Objectives and Program Alignment</th>
<th>Other Aichi Targets Impacted*</th>
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<td>Goal A. Address underlying causes</td>
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<tr>
<td>1) Raise awareness of biodiversity values</td>
<td>BD Programs 1-10 (integration into project design and implementation as appropriate and useful)</td>
<td>All targets</td>
</tr>
<tr>
<td>2) Integrate biodiversity and development</td>
<td>BD Programs 9 and 10</td>
<td>All targets</td>
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<tr>
<td>3) Address incentives harmful to biodiversity</td>
<td>BD Program 10</td>
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<td>4) Sustainable production and consumption</td>
<td>BD Program 9</td>
<td>1,2,4,5,6,7,8,9,10,11,12,13,14,15</td>
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<td>Goal B. Reduce direct pressures</td>
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<tr>
<td>5) Halve rate of habitat loss</td>
<td>BD Programs 1, 2, 9</td>
<td>6,7,8,11,12,13,14,15,16</td>
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<td>6) Achieving sustainable fisheries</td>
<td>BD Program 2 and 6</td>
<td>4,5,7,8,10,11,12,14</td>
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<td>7) Sustainable agriculture, aquaculture, forestry</td>
<td>BD Program 7 and 9</td>
<td>4,5,6,8,9,10,11,12,13,14,15,16,18</td>
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<td>8) Reduce pollution to safe levels</td>
<td></td>
<td>4,5,6,7,10,11,12,14,15</td>
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<tr>
<td>9) Achieve effective IAS management</td>
<td>BD Program 4</td>
<td>5,6,7,9,10,11,12,13,14,15</td>
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<tr>
<td>10) Minimize pressures on reefs and other vulnerable ecosystems</td>
<td>BD Program 2 and 6</td>
<td>6,12,13</td>
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### RELATIONSHIP BETWEEN STRATEGIC PLAN FOR BIODIVERSITY 2011-2020 AND GEF BIODIVERSITY OBJECTIVES AND PROGRAMS

| Strategic Plan Goals and Associated Aichi Targets | GEF Biodiversity Objectives and Program Alignment | Other Aichi Targets Impacted*
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<td><strong>Goal C. Enhance state of biodiversity</strong></td>
<td>GEF Objective 1: Improve Sustainability of Protected Area Systems</td>
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<td></td>
<td>GEF Objective 2: Reduce threats to biodiversity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEF Objective 3: Sustainably Use Biodiversity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEF Objective 4: Mainstream biodiversity</td>
<td></td>
</tr>
<tr>
<td><strong>11) Expansion of Protected Area Networks and Effective Management</strong></td>
<td>BD Programs 1, 2, 7, and 9</td>
<td>1, 2, 5, 6, 7, 8, 10, 12, 14, 15</td>
</tr>
<tr>
<td><strong>12) Prevent extinctions and improve status of threatened species</strong></td>
<td>BD Programs 1, 2, 3, 4, 5, and 9</td>
<td>5, 11, 13</td>
</tr>
<tr>
<td><strong>13) Maintain gene pool of plant and animal genetic resources</strong></td>
<td>BD Programs 1 and 7</td>
<td>2, 7, 12</td>
</tr>
<tr>
<td><strong>Goal D. Enhance benefits of ecosystem services</strong></td>
<td>GEF Objectives 1, 2, 3, and 4</td>
<td></td>
</tr>
<tr>
<td><strong>14) Restore and safeguard essential ecosystem services</strong></td>
<td>BD Programs 2 and 9</td>
<td>5, 10, 11, 12, 13</td>
</tr>
<tr>
<td><strong>15) Enhance ecosystem resilience and carbon stocks</strong></td>
<td>BD Programs 1, 2, 9 and 10</td>
<td>5, 11, 12, 13</td>
</tr>
<tr>
<td><strong>16) Achieve entry into force of ABS Protocol</strong></td>
<td>BD Program 8</td>
<td>1, 2, 4, 5, 10, 11, 12, 13, 18, 19</td>
</tr>
<tr>
<td><strong>Goal E: Enhance implementation</strong></td>
<td>Integrated throughout GEF Programming</td>
<td></td>
</tr>
<tr>
<td><strong>17) Implementation of revised NBSAPs</strong></td>
<td>NBSAP development funded during GEF-5. Implementation supported by all GEF-6 BD programs.</td>
<td>All targets</td>
</tr>
<tr>
<td><strong>18) Traditional knowledge</strong></td>
<td>Integrated into project design and implementation as appropriate in all GEF-6 BD programs.</td>
<td>7, 13, 14, 15, 16, 19</td>
</tr>
<tr>
<td><strong>19) Knowledge-base and science applied</strong></td>
<td>Integrated into project design and implementation as appropriate in all GEF-6 BD programs.</td>
<td>All targets</td>
</tr>
<tr>
<td><strong>20) Resource mobilization</strong></td>
<td>GEF will identify, make use of, and report on all financing leveraged through GEF BD programs and integrated approaches piloted in GEF-6.</td>
<td>All targets</td>
</tr>
</tbody>
</table>
## Annex II. Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and Other GEF Focal Areas

### Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and Other GEF Focal Areas

<table>
<thead>
<tr>
<th>Strategic Plan Goals and Aichi Targets</th>
<th>GEF Integrated Approaches and Focal Area Alignment</th>
<th>Other Aichi Targets Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal A. Address underlying causes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Integrate biodiversity and development</td>
<td>Amazon SFM Program</td>
<td>5, 10, 12, 14, 15</td>
</tr>
<tr>
<td>2) Address incentives harmful to biodiversity</td>
<td>Commodities Integrated Approach</td>
<td>1,2,4,5,6,7,8,9,10,11,12</td>
</tr>
<tr>
<td>3) Sustainable production and consumption</td>
<td>Commodities Integrated Approach</td>
<td>1,2,4,5,6,7,8,9,10,11,12, 13,14,15</td>
</tr>
<tr>
<td><strong>Goal B. Reduce direct pressures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Halve rate of habitat loss</td>
<td>Commodities Integrated Approach</td>
<td>6,7,8,11,12,13,14,15,16</td>
</tr>
<tr>
<td>6) Achieving sustainable fisheries</td>
<td>International Waters Focal Area</td>
<td>4,5,7,8,10,11,12,14</td>
</tr>
<tr>
<td>7) Sustainable agriculture, aquaculture, forestry</td>
<td>Food Security Integrated Approach</td>
<td>4,5,6,8,9,10,11,12,13,14, 15,16,18</td>
</tr>
<tr>
<td></td>
<td>Sustainable Forest Management Program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amazon SFM Program</td>
<td></td>
</tr>
<tr>
<td>8) Reduce pollution to safe levels</td>
<td>Chemicals, International Waters, and Land Degradation Focal Area</td>
<td>4,5,6,7,10,11,12,14,15</td>
</tr>
<tr>
<td>10) Minimize pressures on reefs and other vulnerable ecosystems</td>
<td>International Waters Focal Area</td>
<td>6,12 and 13</td>
</tr>
<tr>
<td><strong>Goal C. Enhance state of biodiversity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Expansion of Protected Area Networks and Effective Management</td>
<td>Amazon SFM Program</td>
<td>1,2,5,6,7,8,10,12,14,15</td>
</tr>
<tr>
<td>12) Prevent extinctions and improve status of threatened species</td>
<td>Amazon SFM Program</td>
<td>5,11, 13</td>
</tr>
</tbody>
</table>
### Annex III. Summary of GEF Criteria for Defining Globally Significant Sites for Biodiversity Conservation*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Sub-Criteria</th>
<th>Provisional Thresholds for GEF Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vulnerability</strong></td>
<td>Regular occurrence of a globally threatened species (according to the IUCN Red List) at the site</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Irreplaceability</strong></td>
<td>Restricted-range species</td>
<td>Species with a global range less than 50,000 square kilometers</td>
</tr>
<tr>
<td></td>
<td>Species with large but clumped distributions</td>
<td>5% of global population at site</td>
</tr>
<tr>
<td></td>
<td>Globally significant congregations</td>
<td>1% of global population seasonally at site</td>
</tr>
<tr>
<td></td>
<td>Globally significant source populations</td>
<td>Site is responsible for maintaining 1% of global population</td>
</tr>
<tr>
<td></td>
<td>Bio-regionally restricted assemblages</td>
<td>To be defined</td>
</tr>
</tbody>
</table>

* The global standards for identification of key biodiversity areas are currently under revision through a broad scientific consultation process convened by IUCN’s World Commission on Protected Areas/Species Survival Commission Joint Taskforce on Biodiversity & Protected Areas. These will be launched at the 2014 World Parks Congress. In the interim, the criteria and thresholds for key biodiversity area identification as presented above will be applied. It is likely that the great majority of sites meeting these criteria will also be considered key biodiversity areas under the new standard.
ANNEX IV. LARGE SCALE IVORY SEIZURES, 2009-2011


ANNEX V. REGIONAL COVERAGE AND THREAT STATUS OF CORAL REEF ECOSYSTEMS

<table>
<thead>
<tr>
<th>REGION</th>
<th>% OF WORLD CORAL REEF</th>
<th>% OF CORAL REEF THREATENED</th>
<th>MAJOR THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean Region</td>
<td>10% High level of endemism</td>
<td>75%</td>
<td>Disease, Overfishing, Tourism, Land-based pollution, Shipping</td>
</tr>
<tr>
<td>Indian Ocean</td>
<td>13%</td>
<td>65%</td>
<td>Overfishing, Tourism, Land-based pollution</td>
</tr>
<tr>
<td>Pacific (including Eastern part of the Coral Triangle)</td>
<td>25%</td>
<td>50%</td>
<td>Overfishing, Tourism, Land-based pollution</td>
</tr>
<tr>
<td>Middle East</td>
<td>6% High level of endemism</td>
<td>70%</td>
<td>Shipping, Marine based pollution, Tourism industry</td>
</tr>
<tr>
<td>South East Asia (including Western half of the Coral Triangle)</td>
<td>28% Most extensive and diverse coral reef of the world</td>
<td>95%</td>
<td>Overfishing, Unregulated aquaculture, Land based pollution</td>
</tr>
</tbody>
</table>
The Global Environment Facility is a partnership for international cooperation where 183 countries work together with international institutions, civil society organizations and the private sector, to address global environmental issues.

Since 1991, the GEF has provided $12.5 billion in grants and leveraged $58 billion in co-financing for 3,690 projects in 165 developing countries. For 23 years, developed and developing countries alike have provided these funds to support activities related to biodiversity, climate change, international waters, land degradation, and chemicals and waste in the context of development projects and programs.

Through its Small Grants Programme (SGP) the GEF has made more than 20,000 grants to civil society and community based organizations for a total of $1 billion.

Among the major results of these investments, the GEF has set up protected areas around the world equal roughly to the area of Brazil; reduced carbon emissions by 2.3 billion tonnes; eliminated the use of ozone depleting substances in Central and Eastern Europe and Central Asia; transformed the management of 33 major river basins and one-third of the world’s large marine ecosystems; slowed the advance of desertification in Africa by improving agricultural practices—and all this while contributing to better the livelihood and food security of millions of people.