

Working for Biodiversity Net Gain

An Overview of the Business and Biodiversity Offsets Programme (BBOP) 2004–2018





Forest Trends and the Wildlife Conservation Society provided the Secretariat for BBOP during the third phase of the programme's work (2012–2018).

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About this Document

This Overview and the other documents discussed here have been prepared by the Business and Biodiversity Offsets Programme (BBOP). BBOP ran from 2004-2018 to help developers, conservation groups, communities, governments and financial institutions develop and apply best practice towards achieving no net loss and preferably a net gain of biodiversity through the rigorous application of the mitigation hierarchy (avoid, minimise, rehabilitate/restore, offset). The Principles, Standard and Handbooks published by BBOP were developed and tested by members of the BBOP Secretariat and Advisory Group and all the BBOP documents have benefited from contributions and suggestions from many people who registered on the BBOP consultation website and numerous others who joined us for discussions in meetings and webinars.

All BBOP Advisory Group members support the Principles, and many companies and governments have integrated them into their own commitments and also use the Standard and other tools. We commend the full set of

BBOP materials to readers as a source of guidance on which to draw when considering, designing and implementing projects and policies that aim for the best outcomes for biodiversity in the context of development.

BBOP has now concluded its work but best practice in this area is still developing. We hope the legacy of BBOP is that its materials continue to be used and the concepts and methodologies presented here are refined over time based on practical experience, research and broad debate within society. All those involved in BBOP are grateful to the companies who volunteered pilot projects, the members that developed and applied draft versions of the Standard and other tools as they were developed, and the donors listed overleaf, who enabled the Secretariat and Advisory Group to prepare these documents.

To learn more, see:

<https://www.forest-trends.org/bbop/>

We thank the following for their membership of the BBOP Advisory Group at different stages of the Programme:

African Wildlife Foundation; Ambatovy Project; Anglo American; AngloGold Ashanti; Arup; Biodiversity Neutral Initiative; Biodiversity Works; Biotope; BirdLife International; Botanical Society, South Africa; BP; Brazilian Biodiversity Fund (Funbio); Cambridge Centre for Conservation Policy; CDC Biodiversité; Cemex; Centre for Research-Information-Action for Development in Africa; Citi; City of Bainbridge Island; Conservation International; Daemeter Consulting; Department for Environment and Rural Affairs – Defra (UK); Department of Conservation, New Zealand; Department of Sustainability & Environment, Government of Victoria, Australia; deVilliers Brownlie Associates; Dynatec; Earthmind; Earthtrade; Earthwatch Institute; Ecoacs; Ecoagriculture Partners; EcoAnalysts; EcoDecisión; EcoTopia Science Institute, Nagoya University; Eiffage; Électricité de France; Enetjörn Natur; Environ Corporation; Environmental Banc & Exchange; Environment Bank; Environmental Defense Fund; Environmental Resources Management; ERAMET; European Bank for Reconstruction and Development; Fauna & Flora International; Forest Trends; Forestry Department, Sabah, Malaysia; Global Environment Fund; Golder Associates; Government of Catalonia, Spain; Government of Cross River State, Nigeria; Grupo Ecológico Sierra Gorda, I.A.P., México; Guinée Ecologie; Hardner & Gullison Associates; Hogan Lovells; Inmet Mining; Inter-American Development Bank; Inter-American Investment Corporation; International Conservation Services CC; International Finance Corporation; International Institute for Environment and Development; International Union for Conservation of Nature (IUCN); IPIECA; KfW Bankengruppe; Leibniz Institute of Ecological and Regional Development (IOER); Luossavaara-Kiirunavaara AB (LKAB); Markit Environmental Registry; Ministry of Agricultural and Rural Development (MARD), Vietnam Directorate of Forestry; Ministry of Ecological and Solidary Transition, France; Ministry of Environment and Tourism, Namibia; Ministry of Housing, Spatial Planning, and the Environment, The Netherlands; Ministry of Infrastructure and the Environment, The Netherlands; Ministry of Mines and Energy, Namibia; Ministry of Natural Resources and the Environment (MONRE), Vietnam; Ministry of Nature, Environment and Tourism, government of Mongolia; Ministry of Sustainable Development and Infrastructure, Luxembourg; Mizuho Bank, Ltd.; Namibian Uranium Association; National Ecology Institute, Mexico; National Environment Management Authority, Uganda; National French Institution for Water Management and Policy; National Office for the Environment, Madagascar (ONE); Nature Conservation Resource Center, Ghana; Nature Task; NEPCon; New Britain Palm Oil Ltd.; New Forests; Newcrest Mining Limited; Newmont Mining Corporation; Nollen Group; Pact Inc., Private Agencies Collaborating Together; Poulton Environmental Strategies; Proforest; Rainforest Alliance; Ramsar Convention on Wetlands; Redd Forests; Resource Environmental Solutions, LLC; Response Ability, Inc.; Rio Tinto; Royal Botanic Gardens, Kew; Scientific Certification Systems; Shell International; Sherritt International; SLR Consulting; Solid Energy Coals of New Zealand; South African National Biodiversity Institute; South Rift Association of Land Owners, SORALO; Sveaskog; Tahiti Estate; The Biodiversity Consultancy; The Nature Conservancy; Tonkin and Taylor; TOTAL SA; Treweek Environmental Consultants; Tulalip Tribes, US; United Nations Development Programme; United Nations Environment Programme – World Conservation Monitoring Centre; United States Agency for International Development; University of Washington; US Fish and Wildlife Service; Wave Action; Wild Business; Wildlands Inc.; Wildlife Conservation Society; Wildlife Division, Forestry Commission, Ghana; Winstone Aggregates; WSP; WWF-UK; Zoological Society of London and the following individuals: Steve Botts; Marc Christensen; Toby Gardner; Daniela Lerda; Paul Mitchell; Dave Richards; Shelagh Rosenthal; Marian Weber.

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African Wildlife Fund; Ambatovy Project; Biotope; BirdLife International; CDC Biodiversité; Conservation International; Department of Conservation, New Zealand; Department of Territory and Sustainability, Catalonia; deVilliers Brownlie Associates; Earth Trade; Earthmind; EcoAnalysts; Électricité de France; Eiffage; Enetjärn Natur; Environ Corporation; Environment Bank; Environmental Banc & Exchange; Environmental Defense Fund; Environmental Resources Management; ERAMET; Fauna & Flora International; Forest Trends; Golder Associates; Government of Luxembourg; International Institute for Environment and Development; Inmet Mining; International Union for the Conservation of Nature; KfW Bankengruppe; LKAB; Ministry for Ecological and Solidary Transition, France; Ministry of Infrastructure & Environment, the Netherlands; Mizuho Bank Ltd.; Nature Task; NEPCon; New Forests; Newcrest Mining; Newmont Mining; Resource Environmental Solutions; Solid Energy Coals of New Zealand; South African National Biodiversity Institute; Sveaskog; Tahí Estate; The Nature Conservancy; Tonkin and Taylor; Total SA; UNEP-WCMC; Winstone Aggregates; WSP; WWF-UK; Zoological Society of London.

¹Endorsement of some or all of the BBOP documents is not implied by financial support for BBOP's work.

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Why the Urgent Need for Biodiversity Net Gain?

How can society enjoy access to food, materials, energy, infrastructure and jobs while ensuring there is still clean air and water, productive soils and seas and a healthy natural environment? This is an increasingly urgent question in the light of the loss of biodiversity and degradation of land and ecosystem services.ⁱ These can destabilize economies, contribute to mass migration and conflict and threaten human health. The abundance of vertebrates declined 58% between 1970 and 2016.ⁱⁱ Entire species are going extinct at rates never seen before in human history.ⁱⁱⁱ Loss, deterioration and fragmentation of habitat, often linked to governments' development plans with new roads, dams, mines, and other large-scale infrastructure projects, as well as to agricultural expansion, is a major driver of this decline.^{iv}

BOX 1

What is Biodiversity Net Gain?

Simply stated, Biodiversity Net Gain (BNG), means leaving biodiversity better off following development activity, compared with a clear reference scenario.

For definitions of key terms, see the BBOP Glossary.^v

The challenge is all the more acute if we consider development plans and trends for growth of investment in infrastructure, agriculture, extraction, and other economic activities. For instance, between 2015 and 2030, an estimated \$US90 trillion — roughly double current infrastructure spending — will need to be spent on new infrastructure assets, in order for transportation networks, energy, utilities, and other essential systems to keep pace with projected demand. Two-thirds of it is needed in developing countries.^{vi} A 35% increase in food production is also needed between 2012 and 2030 to feed 9 billion people.^{vii} The loss of biodiversity from these impacts will be magnified by climate change. The IPCC has shown that global warming of 1.5°C or more would lead to the inevitable loss of some ecosystems.^{viii} This points to the urgency of limiting global warming and strengthening efforts for the long-term conservation of biodiversity.

In May 2018, the United Nations warned that failure to halt and reverse biodiversity loss and the continued degradation of nature's contributions to people would seriously jeopardise the chances of any region and almost every country to meet its global development targets.^{ix} Governments have endeavoured to set ambitious biodiversity conservation priorities in the Aichi Targets of the Convention on Biological Diversity (CBD) and the United Nations Sustainable Development Goals (especially Goals 14 and 15) but biodiversity is often overlooked in development plans, investment and economic decision-making. Biodiversity conservation needs to be core to economic decision-making, and not a 'bolt on' or a separate, disconnected activity. The world is still looking for practical solutions that reconcile development with the conservation of biodiversity and ecosystem services.^x

For companies, there are significant risks from biodiversity loss but also substantial opportunities to seize. Key elements of the business case for achieving a Net Gain of Biodiversity are outlined in Box 2.

BOX 2

Key elements of the business case for working towards Biodiversity Net Gain

- Compliance with the growing number of laws and policy on mitigation, biodiversity offsets and compensation (now in some 100 countries).
- Access to finance: 94 financial institutions in 37 countries have adopted the Equator Principles, with project finance conditions requiring No Net Loss of biodiversity in natural habitat and Net Gain in critical habitat.
- Competitive advantage from securing smooth and rapid license to operate, including support from local communities, avoiding costs and delays from conflict.
- Securing supply chains that rely on natural resources.

Achieving Biodiversity Net Gain through the Mitigation Hierarchy

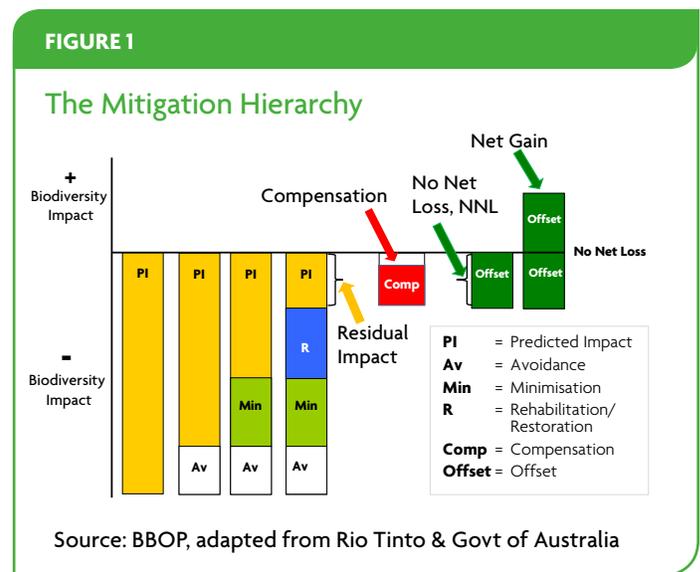
Planning for Biodiversity Net Gain must be included in the very early stages of development projects to support sustainable development and conserve the natural systems on which our economies are based.

Steps to **avoid**, **minimize**, **rehabilitate**, and **offset** (or failing that, compensate) negative impacts are essential when development is planned, following the **mitigation hierarchy** (Figure 1). The aim is to achieve at least **no net loss (NNL)** of biodiversity, and preferably a **net gain (NG)**.

Avoidance is the first and most important step. This includes the explicit consideration of alternative locations or approaches to development to avoid and reduce loss of biodiversity and ecosystem services. Biodiversity offsets are the last step in the mitigation hierarchy. They constitute measurable conservation gains, deliberately achieved to balance any significant biodiversity losses that cannot be countered by avoiding or minimizing impacts from the start, or addressing the damage done through restoration.

A rigorous approach to the mitigation hierarchy is a shared responsibility and can help all concerned: it helps governments with wise land-use planning, commissioning of infrastructure and consistency of economic and conservation policies. It helps investors and companies manage risk, and companies develop partnerships with governments, civil society and conservation organizations to address the impacts of their activities and enhance their contribution to biodiversity conservation and sustainable development. It helps local people influence development in their area and conservation groups secure better outcomes for biodiversity. But attempting to achieve 'biodiversity net gain' or even 'no net loss' without proper regard to the best practice in the mitigation hierarchy can do more harm to biodiversity, communities and to companies than it does good.

Following the mitigation hierarchy demands a sophisticated approach to handling risk and opportunity and raises a number of questions: How much to invest in rerouting a



pipeline or setting aside a piece of land or sea that could be developed? Who to involve and how to secure long term sustainable development objectives once a project, such as a mine, has closed? How to measure impacts on biodiversity and dependence on ecosystem services? Whether to get involved in activities outside the company's main zone of influence? How to tackle multiple inter-connected issues such as biodiversity, carbon, water, and poverty alleviation? How to work with governments, particularly at the regional and local levels, when they too are coming to terms with these new challenges?

When BBOP was established, it was hard to answer these questions. Prescriptive approaches could not be flexible enough to fit many different situations, yet there were no internationally recognized principles to apply in a broad range of settings. Biodiversity was often overlooked in the impact assessment process. There was no common understanding of what was meant by a 'biodiversity offset', when offsetting was appropriate and how to distinguish between good and bad practice in following the mitigation hierarchy. BBOP was set up to change that.

Why was BBOP Needed?

In 2004, Forest Trends established the Business and Biodiversity Offsets Programme (BBOP) to bring together a large group of organisations to challenge the historical assumption that the social and economic benefits of development projects must inevitably result in a net loss of biodiversity. At the time, companies were beginning to acknowledge that the trade-off between economic growth and environmental outcomes was increasingly unacceptable to investors and civil society. Governments were looking for practical ways to reconcile their sustainable development targets with biodiversity conservation. Financial institu-



tions wanted to find ways to safeguard their investments against social and environmental risks. Indigenous peoples and local communities wanted to ensure that new projects were developed with their prior and informed consent and reflected their needs and priorities. The conservation community and scientists aimed to improve the manner in which losses and gains of biodiversity and ecosystem services were measured, managed and monitored and to ensure that conservation priorities and land-use planning

were based on sound science. All of them faced challenges in making progress with these goals.

The terminology for core concepts such as ‘mitigation’, ‘compensation’ and ‘offsets’ varied from country to country and group to group, leading to confusion and misunderstanding during discussions; guidelines, methodologies and standards were lacking so it wasn’t clear how to measure losses and gains of biodiversity, how to consider the social and cultural values of communities and how to set up the legal, financial and administrative arrangements to secure mitigation measures over the long term; proposals for improved approaches hadn’t been tested and demonstrated at pilot sites; and government policies and financial investment conditions did not necessarily encourage best practice.

Without a recognized standard, project developers, lenders and the conservation community had no way of judging the quality of mitigation measures including biodiversity offsets. In addition, developers were exposed to potential criticism that the efforts they made to offset impacts were inappropriate, wrong in kind, scale and location and did not accord with good practice. The risk of criticism and the lack of certainty that investment in offsets will be well regarded by stakeholders has been a significant disincentive to developers.

Above all, there was no forum to bring together the different perspectives of companies, investors, governments and civil society to reach consensus views on these topics, and to do so at an international level outside the very specific legislation of a handful of countries.

With this in mind, 40 representatives from companies, governments, non-governmental organisations and financial institutions joined BBOP; a group that grew to over 100 members, with a Secretariat provided by Forest Trends and WCS. With the growing recognition of the need to move towards a net gain of biodiversity, the original plan of the members was to develop and test the principles, standards and methods needed to demonstrate no net loss of biodiversity in the context of development projects.

What has BBOP Achieved?

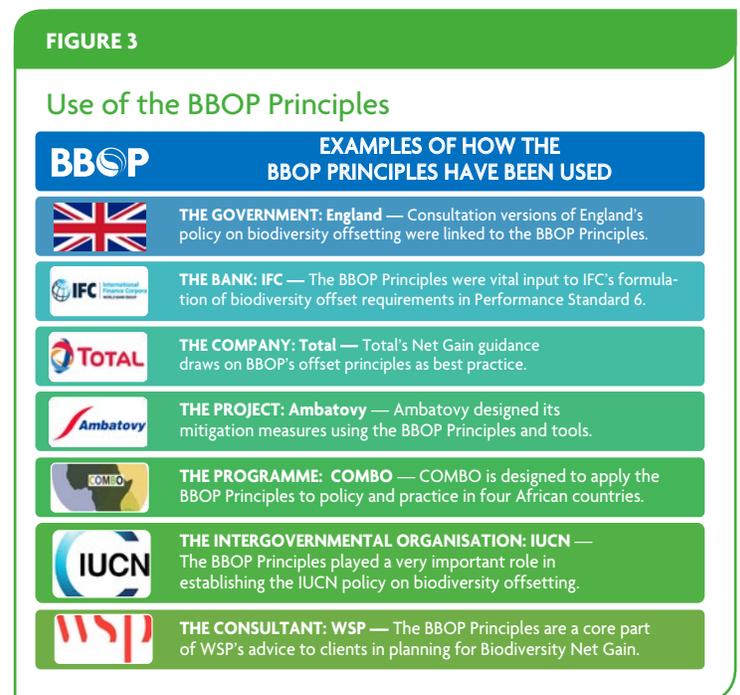
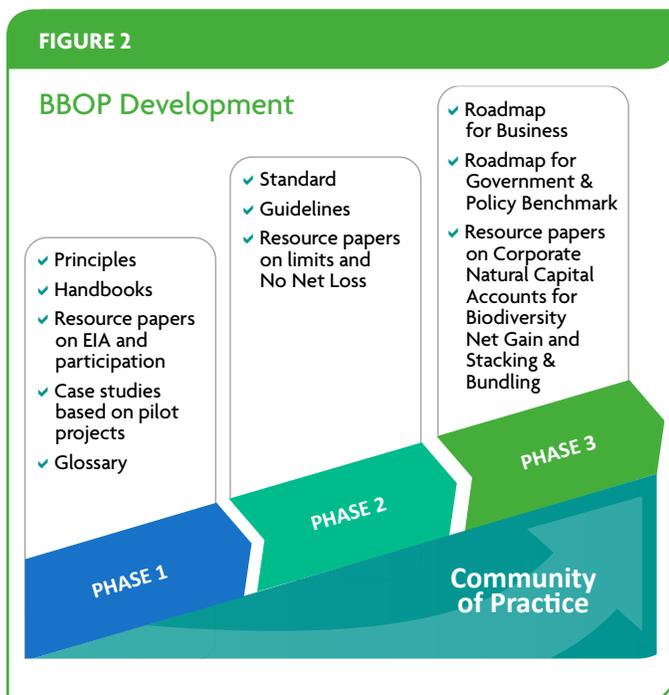
The impact of BBOP is best reflected in its tools and other publications, and in its contribution to changing international best practice related to No Net Loss and Net Gain of biodiversity.

Since 2004, we have made significant strides by establishing more rigour in the application of the mitigation hierarchy, and promoting plans for defined conservation outcomes like No Net Loss and Net Gain. We have created tools to mainstream these approaches in key economic decision-making, such as spatial planning and licensing. BBOP's work is seen in the corporate commitments, governments' laws and policies and safeguards of lending institutions that reflect the BBOP principles, Standard and other products. It is also felt in the **'Community of Practice'** BBOP has created and fostered, with over 2000 professionals sharing and spreading experience and best practice worldwide.

Rather than endeavouring to prescribe very detailed guidelines for every scenario, from a trans-continental pipeline to a marine oil and gas development to a micro-scale tourism lodge, members agreed that best practice

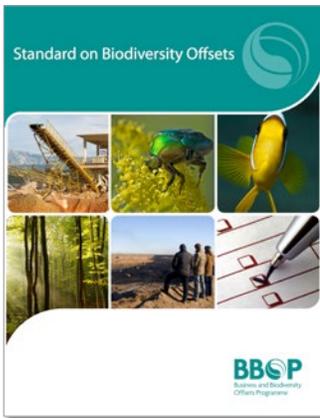
should be established by defining a set of principles that set a high standard on how to proceed but that are flexible enough to apply in very varied circumstances. In 2009, BBOP agreed the internationally recognized set of **Principles on Biodiversity Offsets**, now used, cited, adapted and integrated into law, policy, industry guidance and financial loan conditions worldwide.

BBOP's practical **'Handbooks'** are the 'how to' tools to enable practitioners to put the Principles and Standard into practice in the design and implementation of particular projects. Accompanied by **'Resource Papers'** that delve into topics such as impact assessment, stakeholder participation and quantifying No Net Loss, these have been used by companies and their advisers around the world. The approach to measuring loss and gain of biodiversity set out in the Handbooks and the Standard on Biodiversity Offsets (building on a metric of area x condition, with special considerations for species of conservation concern, connectivity and people's social and cultural values), draws on experience in Australia and other countries and has become the basis of established best practice.



The Principles are aspirational, and BBOP members felt something more specific was needed to tell whether a project abides by them. Companies asked “How can we demonstrate that our mitigation is good enough?” So 90 collaborators in the Business and Biodiversity Offsets Programme (BBOP) developed the **Standard on Biodiversity Offsets**.^{xi} The Standard helps companies,

lenders, governments, civil society and auditors navigate through the mitigation hierarchy and establish sustainable conservation programmes to achieve no net loss or a net gain of biodiversity. It allows companies to assess and manage business risk and opportunity, compare their performance with peers in their sector and distinguish themselves from competitors.



In 2012, just as the BBOP Standard was released, the International Finance Corporation published its revised Performance Standards (PS), and the two approaches are complementary. The IFC’s definition of biodiversity offsets in PS6 on ‘Biodiversity Conservation and Sustainable Management of Living Natural Resources’ aligns with the core elements of BBOP’s definition, just as requirements in PS6 (e.g. ‘like for like’) are covered by the BBOP Standard. The IFC’s Performance Standards and Guidance Notes, now adopted by the 94 Equator banks, refer to the BBOP Principles as an internationally recognized standard in biodiversity offset design. Similar provisions are now found in other financial institutions’ safeguard policies, such as the World Bank’s Environmental and Social Safeguards.

In June 2014, BBOP, the UK Department for Environment, Food & Rural Affairs and the Zoological Society of London hosted a **Summit on No Net Loss** attended by 300 participants working on these issues from over 30 countries: a gathering that would have been inconceivable 10 years before. Around this period, practitioners and policy-makers started focusing on ‘scaling up’: considering how to move towards a net positive impact on biodiversity at the national and corporate levels, as well as for individual projects. In 2014, thirty-nine countries had existing laws or policies on No Net Loss or a Net Gain of biodiversity, biodiversity offsets or compensation and twenty-two were developing them.^{xii} This number has risen and, depending on the breadth or precision of the scope of policy considered, now lies between 74-100 countries.^{xiii} Over 60 companies have also made public, company-wide commitments or stated aspirations related to No Net Loss or Net Gain of biodiversity.^{xiv} In addition, the CEOs of 50 companies who comprise the Board of The Consumer Goods Forum, mainly in the manufacturing and retail sectors, pledged to mobilise resources within their businesses to help achieve zero net deforestation by 2020.^{xv}

In 2016, the IUCN introduced a policy on biodiversity offsets which reflects much of the content of the BBOP Principles and other documents. The BBOP Secretariat and many members played a key role in its development, as in several decisions of the Conference of the Parties to the Convention on Biological Diversity and the Ramsar Convention which refer to BBOP and the topics it covers.

In response, in 2016, the BBOP members turned their attention to helping governments introduce law, guidelines, information and administrative systems to support the move towards a Net Gain of Biodiversity, as well as

<p>BBOP FOUNDED First Meeting— BBOP1 Pattaya, Thailand</p>	<p>BBOP2 Washington, USA</p>	<p>BBOP3 Curitiba, Brazil BBOP4 Pretoria, South Africa</p>	<p>BBOP5 Bainbridge Island, USA</p>	<p>BBOP6 Potomac, USA</p>	<p>Principles, Handbooks, Resource Papers, Glossary, Case Studies BBOP7 Paris, France</p>	<p>BBOP8 Paris, France</p>	<p>BBOP9 Washington, USA</p>
<p>2004</p>	<p>2005</p>	<p>2006</p>	<p>2007</p>	<p>2008</p>	<p>2009</p>	<p>2010</p>	<p>2011</p>
<p><i>Approx 40 countries have policy on mitigation hierarchy.</i></p>		<p><i>CBD Decision VIII/17 calls for guidance on offsets.</i></p>		<p><i>CBD Decision IX/18 calls for exploration of the potential of biodiversity offsets as a financing mechanism and Decision IX/26 for collaboration with BBOP on case studies, methodologies, tools, guidelines, policy frameworks.</i></p>		<p><i>COP Decision X/21 invites Parties to identify options for incorporating biodiversity into business practices, taking BBOP into account. The Jakarta Charter states ‘The concept of no-net-loss of biodiversity and net-positive impact, as articulated by BBOP, is a practical framework for assessing efforts to implement the CBD.’</i></p>	

helping companies ‘scale up’ their efforts. The results, published in 2018, are the **Roadmap for Governments** and the accompanying **Benchmark** (to gauge the quality of policy) and the **Roadmap for Business**. The roadmaps are accompanied by a Resource Paper showing how **Corporate Natural Capital Accounts for Biodiversity Net Gain** can be prepared in the form of balance sheets. These use biodiversity metrics to demonstrate Biodiversity Net Gain and also reveal the monetary value of the additional benefits (such as improved air quality, carbon sequestration and recreation) that arise as a result of delivering Biodiversity Net Gain.

BBOP also leaves a legacy of **webinars** (heard by some 4000 people) and **newsletters**; all still freely available on the BBOP website.

FIGURE 4

Webinars, minutes of meetings and newsletters available



Over the years, the BBOP Secretariat has run communications and training events that have raised the profile of better mitigation and Biodiversity Net Gain through companies, industry associations, governments and the UN and EU.

Finally, and above all, the work of BBOP, and the issues members have been addressing, have now been taken up by many others. There are now champions and work programmes in individual governments, companies, consultancies, banks, export credit agencies and NGOs, and also in groups and initiatives such as Biodiversity for Banks (BFB), the Cambridge Group, CBD, CIRIA, CSBI, the COMBO Project, the European Commission, EU No Net Loss Initiative, IAIA, ICMM, IPIECA, IUCN, RedLAC, SNAPP and the World Bank, to name some key leading groups and associations in the field.

As BBOP closes in 2018, celebrating this progress and the changes the programme has helped to stimulate over the last 15 years, nevertheless, biodiversity is in even more peril than in 2004. Some members of the BBOP Community of Practice (COP) have therefore issued the ‘**Call to Action**’ on page 10.

2012	2013	2014	2015	2016	2017	2018+
Standard, Guidelines, more Resource Papers	Revised Overview, Briefing note to CBD BBOP10 Brussels, Belgium	BBOP11 London, UK Meeting: To No Net Loss and Beyond – BBOP with Defra & ZSL Executive Secretary of CBD and President of WBCSD Speak on NNL	BBOP12 Barcelona, Spain COP with Government of Catalunya and Spanish business	BBOP13 London, UK COP with CIRIA, CIEEM, IEMA	BBOP14 Edinburgh, UK COP with Natural Capital Coalition	Roadmaps for Government and Business, Resource Papers, Overview with Call to Action BBOP15 Paris, France: Working for Biodiversity Net Gain COP with EU Business and Biodiversity Platform
IFC revised Performance Standards on Environmental and Social Sustainability and adopted by Equator Principles Financial Institutions. European Parliament calls for No Net Loss regulation using BBOP standards.		IUCN Technical Study and input papers		World Bank Environmental and Social Framework IUCN Policy on Biodiversity Offsets CIRIA, CIEEM, IEMA Biodiversity Net Gain: Good practice principles for development		Over 60 companies committed to No Net Loss. Over 100 countries require or enable offsets. Over 90 financial institutions committed to No Net Loss and Net Gain.

BBOP's Tools and Publications

OVERVIEW	 Working for Biodiversity Net Gain  An Overview of the Business and Biodiversity Offsets Programme (BBOP)
THE STANDARD <i>Available in English, French, Spanish, Portuguese, and Japanese</i>	 Standard on Biodiversity Offsets  Principles, Criteria, and Indicators <div style="border: 1px solid #008080; padding: 2px; margin: 5px 0;"> Guidance Notes to the Standard on Biodiversity Offsets  </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid #008080; padding: 5px; border-radius: 10px;">  The Principles  </div> <div style="border: 1px solid #008080; padding: 5px; border-radius: 10px;">  BBOP Glossary  </div> </div>
ROADMAPS	<div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Business Roadmap  Business Planning for Biodiversity Net Gain </div> <div style="flex: 0.5;"> Technical Notes  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Government Roadmap  Government Planning for Biodiversity Net Gain </div> <div style="flex: 0.5;"> Technical Notes  </div> </div> <div style="border: 1px solid #008080; padding: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Policy Benchmark  Government Planning for Biodiversity Net Gain </div> </div>
HANDBOOKS	<div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Offset Design Handbook  </div> <div style="flex: 0.5;"> Appendices  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Cost Benefit Handbook  </div> </div> <div style="border: 1px solid #008080; padding: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;">  Offset Implementation Handbook  </div> </div>
RESOURCE PAPERS	<div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Biodiversity Offsets and Impact Assessment  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Biodiversity Offsets and Stakeholder Participation  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Case Studies  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Corporate Natural Capital Accounting for Biodiversity Net Gain  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> No Net Loss & Loss-Gain Calculations  </div> </div> <div style="border: 1px solid #008080; padding: 5px; margin-bottom: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Non-offsettable Impacts  </div> </div> <div style="border: 1px solid #008080; padding: 5px; display: flex; justify-content: space-between;"> <div style="flex: 1;"> Stacking & Bundling  </div> </div>

[Webinars](#)
[Library](#)
[Newsletters](#)

An abstract for each of these publications is on pages 16 to 21, and the table on the next page helps people find the product that will help them best for a particular purpose.

Which BBOP resource?



AUDIENCE	ISSUE	RESOURCE
Why follow the mitigation hierarchy and work towards Biodiversity Net Gain (BNG)?		
Business & Finance	Business case	▶ Business Planning for Biodiversity Net Gain: A Roadmap
Government	Sustainable development case	▶ Government Planning for Biodiversity Net Gain: A Roadmap
How do you follow the Mitigation Hierarchy and work towards BNG?		
Business & Finance	PROJECT LEVEL: Design and implementation of mitigation measures (including biodiversity offsets)	▶ Offset Design Handbook ▶ Cost Benefit Handbook ▶ Offset Implementation Handbook ▶ Resource Papers
	COMPANY LEVEL: Corporate approaches and commitments	▶ Business Planning for Biodiversity Net Gain: A Roadmap
Government	PROJECT LEVEL: Design of mitigation measures (including biodiversity offsets)	▶ Offset Design Handbook ▶ Cost Benefit Handbook ▶ Offset Implementation Handbook ▶ Resource Papers
	NATIONAL, STATE, OR LOCAL LEVEL: Design and administration of a policy for mitigation of development impacts on biodiversity	▶ Government Planning for Biodiversity Net Gain: A Roadmap
How can you assess whether a project or policy is working towards BNG?		
Business & Finance	RAPID FEASIBILITY ASSESSMENT: Will this planned project be able to achieve BNG?	▶ Standard on Biodiversity Offsets ▶ Guidance Notes
	PROJECT DESIGN: How to design this project to achieve BNG? ASSESSMENT OF IMPLEMENTATION: On track to achieve BNG?	▶ Offset Design Handbook ▶ Cost Benefit Handbook ▶ Offset Implementation Handbook
Government	PROJECT LEVEL	▶ Standard on Biodiversity Offsets ▶ Guidance Notes ▶ Offset Design Handbook ▶ Cost Benefit Handbook ▶ Offset Implementation Handbook
	NATIONAL, STATE OR LOCAL LEVEL	▶ Policy Benchmark ▶ Government Planning for Biodiversity Net Gain: A Roadmap
How can I understand the key issues associated with mitigating impacts on biodiversity and working towards BNG?		
All	Understanding the terminology	▶ BBOP Glossary
	What are the key issues at stake?	▶ Working for Biodiversity Net Gain: An Overview of BBOP
	What are the fundamental principles of Biodiversity Offsets?	▶ The Principles ▶ Standard on Biodiversity Offsets
	What are the BBOP tools, approaches and materials?	▶ Working for Biodiversity Net Gain: An Overview of BBOP
	Business case	▶ Business Planning for Biodiversity Net Gain: A Roadmap
	Methods	▶ Offset Design Handbook ▶ Cost Benefit Handbook ▶ Offset Implementation Handbook ▶ Resource Papers ▶ Roadmaps
	Standards	▶ Standard on Biodiversity Offsets ▶ Guidance Notes
Where can I find examples?		
All	Projects	▶ Case Studies ▶ Webinars
	Policies	▶ Case Studies ▶ Webinars

A CALL TO ACTION:² Help make a real transition to Biodiversity Net Gain

In the 15 years since its founding, BBOP’s principles, standards and guidance and the work of its members have been instrumental in raising the bar for biodiversity and ecosystem services in the context of residual losses associated with global development. Some 100 governments now have policies and laws that mainstream biodiversity in planning decisions and 94 Equator Principles Association financial institutions have loan conditions requiring no net loss of natural habitat and net gain in critical habitat. Corporate strategies and procedures that go beyond damage limitation increasingly commit businesses to tangible outcomes for biodiversity.

Strengthening measures to ensure that biodiversity is not lost to begin with is the top priority. Including a specific offset step at the end of the mitigation hierarchy offers a chance of redress when efforts to avoid or minimise impacts cannot achieve no net loss.

Through its efforts, BBOP has been at the forefront of a transition to a “new normal” in which explicit efforts are expected of developers and policy-makers to address residual impacts from development and improve the state of biodiversity and ecosystem services.

Despite these positive changes, biodiversity is in crisis. Results in practice do not match advances in theory, government policy and companies’ internal and public commitments. Important risks are too often ignored and the approaches taken by some companies and governments are haphazard and inadequate.

CALL TO ACTION: Members of the BBOP Community of Practice² urge action by the international community, governments, companies and civil society. The world needs to step up efforts to reduce biodiversity loss and improve the standard of mitigation measures, including biodiversity offsets. Only this will achieve a more effective balance between truly needed, sustainable development and vital conservation of the planet’s life support system.

THIS IS OUR VISION: **Appropriate development in the right place planned to achieve a net gain in biodiversity, and undertaken with integrity to a high standard.** Realising this vision will require a decisive step up from ‘business as usual’ but brings many advantages: public support, reduced risks and positive social, environmental and economic outcomes. These go beyond biodiversity and can be demonstrated in natural capital assessments.

➔ **We urge a number of actions so that the vision can be achieved.** Specifically:

				
<p>GOVERNMENTS produce clear, well-governed national mitigation regulations that are feasible, properly monitored and enforced, and in line with ambitious biodiversity conservation targets.</p> <p>GOVERNMENTS align conservation and development priorities through timely land-use planning. They provide licenses only to companies that adhere to standards of best practice for biodiversity and ecosystem services and apply these standards consistently, raising the bar for all development projects.</p>	<p>COMPANIES include biodiversity and ecosystems services early in the planning of projects and value chains so they can assess their impacts and there is still room to avoid and minimise them. They commit to achieve a net gain of biodiversity in line with the vision, develop a clear roadmap to achieve it and communicate their progress and biodiversity outcomes transparently.</p>	<p>FINANCIAL INSTITUTIONS develop, adopt, and then enforce safeguards policies and performance standards in line with the net gain vision. They work with their investee companies to apply these standards, and introduce greater transparency and disclosure requirements.</p> <p>MULTILATERAL BANKS and other donors provide finance for governments to establish effective mitigation systems to achieve the net gain vision including support for capacity building for both public and private sector entities.</p>	<p>CONSERVATION ORGANISATIONS AND ACADEMIA help establish the biodiversity targets, data, maps and metrics needed to underpin the net gain vision and offer support and independent evaluation to companies and governments.</p>	<p>MEMBERS OF CIVIL SOCIETY hold governments, companies and financial institutions to account, expecting high standards and transparency about the potential and actual achievements of the promises made.</p>

²Membership of the BBOP Advisory Group and COP does not necessarily imply support for the Call to Action. A list of signatures can be found at <https://www.forest-trends.org/bbop/a-call-to-action>

Acting on Lessons Learned

This section offers some lessons learned from the work of BBOP over the years and thus recommendations to governments, companies, financial institutions and civil society, including for collaborative work in the future.



GOVERNMENTS should establish national mitigation systems that are feasible, fair, clear and well governed, with an objective of Biodiversity Net Gain

➔ See [Government Roadmap](#) and [Benchmark](#)

Forty years of experience with national law and policy to mitigate the impacts of development on biodiversity and ecosystem services have revealed a number of lessons. It is possible to point to a raft of conservation and restoration measures undertaken as a result of biodiversity conditions in development licenses, but individual mitigation measures have often failed to deliver the intended results and, overall, policies have not achieved their goals of halting or significantly reducing the loss of biodiversity. This is partly because of the design of the mitigation systems, and partly because they have not been strictly monitored and enforced. Luckily, it is possible to learn from these experiences and identify the key factors that underpin well-governed systems. Governments can turn around the effectiveness of mitigation policies and move decisively towards Biodiversity Net Gain if they:

FEASIBLE: When exploring policy options, governments should undertake a spatially explicit assessment of projected losses and potential gains of biodiversity in their jurisdiction over a period such as 20 years. This is the basis for establishing the most appropriate level of ambition for mitigation. Together with biodiversity-inclusive land-use planning it can guide strategic decisions on the nature, extent and location of development that is sustainable and compatible with targets for conservation of biodiversity and ecosystem services. These targets should be ambitious and based on science, so they ensure the persistence and resilience of the country's habitats and species, and the services they deliver.

FAIR: Ensure 'free and prior informed consent' (FPIC) is fully reflected in policy with provisions such that people

affected by projects and associated mitigation measures are left as well off as they were beforehand. Incorporate the socioeconomic and cultural aspects of biodiversity loss and gain, and aim for fairness in how the costs of impacts (and mitigation measures) are shared between developers, those affected and society as a whole.

CLEAR: Set regulatory requirements for development projects to achieve No Net Loss and preferably Biodiversity Net Gain outcomes. Governments need to put in place a robust mitigation system for projects that cause a loss of biodiversity, and ensure a particular focus on avoidance, with offsets or compensation as a last step in the process. A plethora of studies around the world in the last years have revealed that straightforward legal requirements for developers to apply the mitigation hierarchy and stipulate specific conservation outcomes are needed, as voluntary approaches, aspirational policy goals and ambiguous regulations are not enough.

Developers' efforts to deliver Net Gain are more effective if government authorities can offer them clear information on biodiversity features, status and trends and on conservation priorities, preferably with accompanying fine-scale maps and help on how developers can find the biodiversity data to support their project and mitigation planning. It is common for governments to miss the opportunity of using all the baseline data generated by companies during the impact assessment and planning process to contribute to the design of national mitigation systems. Governments should develop systems to collect and share this data, and make it available, alongside public data, to enhance mitigation efforts.

A common short-coming of national mitigation systems (including biodiversity offsets and compensation) is that the 'rules of the game' are not defined so as to ensure genuine net gains, and also that developers are left in the dark as to what steps they should take and standards they should apply. Governments should clarify the exchange

rules to ensure ‘like for like or better’ outcomes, and adopt metrics that consider condition, with additional measures for species of concern and connectivity. It is particularly important to ensure clarity and consistency between project and jurisdictional approaches and spell out ‘no net loss and net gain of what, compared to what’, thereby clearly defining baselines and counterfactuals against which losses and gains are measured.

WELL GOVERNED: Laudable policy goals such as Biodiversity Net Gain are often thwarted because decision-making processes led by different government departments are inconsistent. It is highly recommended that governments establish a dedicated unit or office in government responsible for coordinated delivery of the national mitigation policy and goals (a ‘Biodiversity Net Gain Unit’, or similar), and that this Unit have considerable authority and good connections to all relevant departments. To get beyond problems of the past, governments need to create mechanisms for coordination between different departments, so policy is consistent and joined up and Biodiversity Net Gain goals are not undercut or overridden by incompatible land-use decisions (e.g. inappropriate licenses for energy, mining, extractives or agriculture). It is important to bear in mind that government not only sets policy, but also sets the parameters and conditions when it commissions major infrastructure. When government sets up the mitigation system and corresponding budget, it should prioritise evaluation and enforcement of compliance. Experience shows that it is important not only to review delivery of mitigation at the project level, but also to report on the overall cumulative effects of mitigation by individual projects compared with national policy goals (e.g. an overall target of Biodiversity Net Gain). The costs of monitoring and enforcement can be built into the cost of delivering compensation/offsets, so the system is run on the basis of ‘cost recovery’.



COMPANIES should establish a vision and commitment towards Biodiversity Net Gain, taking steps to include biodiversity very early in the planning cycle, assess net outcomes with suitable rigour, work in partnership and report outcomes publicly with independently verified results.

➔ See **Business Roadmap**

Companies are becoming more familiar with assessing and accounting for their impacts and dependencies on biodiversity and ecosystem services, and there are several steps they can take to overcome challenges that have led to some failures of mitigation in the past.

PLAN EARLY, SET CLEAR GOALS AND REPORT: Companies should plan mitigation measures for biodiversity early enough so that there is still time and space for avoidance and minimisation of impacts, and they should undertake proper alternatives analyses (exploring different locations and smaller footprints), including the ‘no go’ option where justified. Companies should establish a vision and commitment to Biodiversity Net Gain (or a similar, specific outcome for biodiversity) in the light of their direct, indirect and cumulative impacts, and communicate this, together with their roadmap or plan for achieving it. Companies should report the outcomes of this process publicly with independent verification of results. Companies and commissioning agencies should also include the costs and benefits of Biodiversity Net Gain in the economic appraisals of projects. Revealing the social and economic contributions that Biodiversity Net Gain can make will fortify the business case.

WORK WITH THE RIGHT PEOPLE ON DESIGN, DELIVERY AND MONITORING: Companies should hire competent expert advisers and form partnerships with conservation and community groups and research organisations for assistance with design and implementation of mitigation measures, to contribute to landscape level planning and figure out effective measures for conservation to balance impacts. They should also engage with government to ensure mitigation efforts support national, regional and local conservation priorities and reach biodiversity targets.

TO ADDRESS IMPACTS AND DEPENDENCIES THROUGH VALUE CHAINS companies should conduct a risk and opportunity assessment of supply chains, establishing suppliers and geographical areas from where products are supplied that represent significant impacts and dependencies on biodiversity and ecosystem services. Companies should encourage their suppliers to minimise their negative impacts on biodiversity and work towards Biodiversity Net Gain.



FINANCIAL INSTITUTIONS should create and then stand by their safeguard policies and performance standards, report transparently on progress with their successful implementation and encourage the governments and companies in which they are invested to take the steps recommended to them above.

➔ See **Business Roadmap**

SUPPORTING SAFEGUARDS: 94 financial institutions have subscribed to the Equator Principles, adopting the IFC's Performance Standards for project finance with provisions on No Net Loss (where feasible) for impacts on natural habitat and requiring Net Gain for impacts on critical habitat. Similar standards can now be found in the World Bank's Environmental and Social Safeguards. However, some significant financial institutions have yet to commit to equivalent safeguards and should do so. It is vital that they stand by these loan conditions, monitoring and enforcing implementation by clients from the pre-feasibility stage of project planning to post-closure. Financial institutions should introduce greater transparency in reporting on the progress and outcomes from applying their safeguards.

ENGAGEMENT ON BEST PRACTICE: Tremendous progress can be made through engagement by investors and asset managers with the companies in which they are invested, encouraging them to work towards Biodiversity Net Gain, and follow the recommendations for companies, above. Investors should communicate that Biodiversity Net Gain measures are desirable and attract them to clients, while investment opportunities that cannot give a good account of how they address biodiversity risks and opportunities will be avoided.

BETTER METRICS: Financial institutions should continue their search for reliable ways to aggregate biodiversity assessments and indicators so that reporting on Biodiversity Net Gain for investment portfolios becomes more customary and reliable. They can also improve metrics and data for better risk mapping for screening (and avoidance, where necessary) of individual projects.

OFFERING FINANCE: Financial institutions can help by providing investment and other financial products (such as insurance) to governments and companies for their activities on Biodiversity Net Gain.



CIVIL SOCIETY, INCLUDING CONSERVATION AND RESEARCH ORGANISATIONS, should stay informed on developments with Biodiversity Net Gain; offer partnerships to provide biodiversity data, conservation outcomes or monitoring of results; and hold governments, companies and financial institutions to account for keeping their commitments and maintaining high standards.

➔ See <https://www.forest-trends.org/bbop/>

CONSERVATION AND RESEARCH ORGANISATIONS

can collect and maintain the biodiversity data and maps needed to underpin a good mitigation system. They can provide the sound science needed to ensure that defensible biodiversity targets are set, irreversible biodiversity losses are avoided, restoration programmes are well-designed, offsets are 'like for like or better' and gains are measured against defensible baselines. That way, society can tell whether Biodiversity Net Gain is feasible and has been achieved. Conservation organisations with an interest in this area can help make Biodiversity Net Gain a reality by delivering conservation outcomes needed to offset developers' residual impacts to a high standard. They can monitor results on the ground and can also offer feedback with lessons learned that can advance best practice. They should collaborate so that governments, companies and financial institutions receive a consistent message from the conservation community.

CIVIL SOCIETY ORGANISATIONS should hold governments, companies and financial institutions to account for keeping their commitments (e.g. meeting policy and corporate targets) and maintaining high standards. They can build effective coalitions to engage with companies to ensure compliance with mitigation commitments. As well as their role in alerting society when standards are not met, they should help shape viable, positive solutions to achieve Biodiversity Net Gain. They can enter into partnerships among NGOs, local government, and companies to support best practice.

INDIVIDUALS should acknowledge that there is an environmental cost to use of transport and consumption of energy, food, and other products. They should contribute to BNG by making responsible decisions as voters and consumers and can advocate for BNG in the development consent process.

WORKING TOGETHER, government, companies, investors and civil society should agree on policy and standards of practice and help respond to each-others' needs.

➔ See <https://www.forest-trends.org/bbop/>

MULTI-STAKEHOLDER: Government cannot establish policy on Biodiversity Net Gain without the support of business and civil society. Similarly, business can only achieve Biodiversity Net Gain in its operations with the agreement and involvement of those involved and affected. Only through dialogue with policy-makers and companies can members of civil society influence development and conservation outcomes. BBOP has shown that multi-stakeholder fora can advance best practice, and all opportunities should be taken to bring the different groups in society together to work for Biodiversity Net Gain.

INTERNATIONAL: While each country's and company's circumstances are unique, BBOP has revealed a great deal of commonality among governments and enterprises. Some are quite advanced in their thinking and experiences working towards Biodiversity Net Gain, while others are just starting. International dialogue should be encouraged to share lessons learned and offer ideas and solutions that may save false leads and years of effort, bringing Biodiversity Net Gain closer.



The BBOP Principles on Biodiversity Offsets

BOX 2

Principles on Biodiversity Offsets supported by all the members of the BBOP Advisory Group

Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development* after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity.

These principles establish a framework for designing and implementing biodiversity offsets and verifying their success. Biodiversity offsets should be designed to comply with all relevant national and international law, and planned and implemented in accordance with the Convention on Biological Diversity and its ecosystem approach, as articulated in National Biodiversity Strategies and Action Plans.

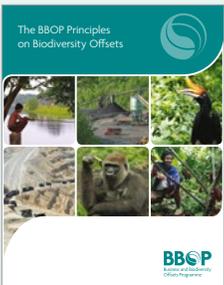
1. **Adherence to the mitigation hierarchy:** A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimization and on-site rehabilitation measures have been taken according to the mitigation hierarchy.
2. **Limits to what can be offset:** There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected.
3. **Landscape context:** A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.
4. **No net loss:** A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.
5. **Additional conservation outcomes:** A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.
6. **Stakeholder participation:** In areas affected by the project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, and implementation and monitoring.
7. **Equity:** A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognized rights of indigenous peoples and local communities.
8. **Long-term outcomes:** The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the project's impacts and preferably in perpetuity.

**While biodiversity offsets are defined here in terms of specific development projects (such as a road or a mine), they could also be used to compensate for the broader effects of programmes and plans.*

Executive Summary of Key BBOP Tools and Publications

THE PRINCIPLES, STANDARD, GUIDANCE NOTES AND GLOSSARY

Principles on Biodiversity Offsets (2009)



Chief among BBOP's outputs is a set of ten fundamental principles which all members of the Advisory Group unanimously support and which they hope other companies, governments and civil society will adopt as a sound basis for planning for no net loss or a net gain of biodiversity. The principles are set out on page 15 and provide the compass and

framework for all the other BBOP products. Approaches to mitigation that follow these principles should achieve the best outcomes for biodiversity and manage the risks associated with biodiversity offsets.

The Standard on Biodiversity Offsets (2012)



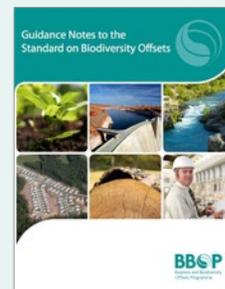
The Standard on Biodiversity Offsets ('the Standard') enables clear and transparent assessment and reporting of progress in the application of the mitigation hierarchy, including design and implementation of biodiversity offsets consistent with the BBOP Principles. The Standard was developed by members of the BBOP Secretariat and Advisory

Group to help auditors, developers, conservation groups, communities, governments and financial institutions that wish to assess biodiversity offsets against the BBOP Principles, Criteria and Indicators. It is presented as a hierarchy of Principles, Criteria and Indicators (PCI). 'Principles' are interpreted as the fundamental statements about a desired outcome. 'Criteria' are the conditions that need to be met in order to comply with a Principle. 'Indicators' are the measurable states which allow the assessment of whether or not a particular Criterion has been met.

Auditors and assessors can use the Standard to determine whether an offset has been designed and subsequently implemented in accordance with the BBOP Principles. Individuals designing and implementing mitigation

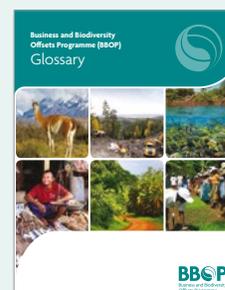
measures including biodiversity offsets can plan them to meet the Standard, in conjunction with other tools such as BBOP's Handbooks on Offset Design, Cost Benefit and Offset Implementation. Individuals developing and administering policy and practice on the mitigation hierarchy and biodiversity offsets (whether they work for governments, individual companies or industry associations), may find the Standard and Guidance Notes useful. Representatives from local communities, indigenous peoples and civil society organisations such as NGOs can refer to the Standard and Guidance Notes to inform dialogue with developers, particularly if they are affected by or interested in a project or its mitigation measures.

Guidance Notes (2012)



The Guidance Notes produced by BBOP help assess whether mitigation measures (including offsets) have been designed and subsequently implemented in conformance with the Standard on Biodiversity Offsets, which comprises the BBOP Principles, Criteria and Indicators. The Guidance Notes offer an interpretation of each Indicator; key questions for assessment; factors to consider in assessing conformance (conformance requirements and situations that are likely to represent causes of non-conformance); as well as related activities from other Indicators.

Glossary (2009, updated 2018)

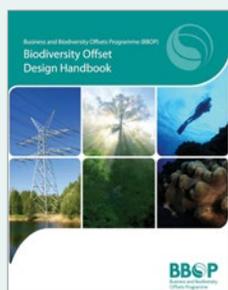


The glossary explains terms found in the Standard, Guidance Notes, Handbooks, Roadmaps and Resource Papers.



THE HANDBOOKS

The Biodiversity Offset Design Handbook (2009, updated 2012)



This presents information on a range of issues, methodologies and tools from which offset planners can select the approaches best suited to their individual circumstances. Structured in three main parts, Part 1 introduces the scope and purpose of the Handbook and key concepts relating to biodiversity offsets.

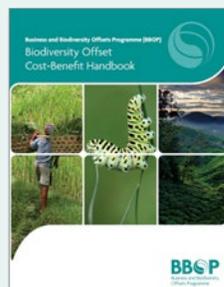
Part 2 describes a generic step-by-step process that can help people designing mitigation measures, from the initial conception of a development project and avoidance measures to the selection of suitable offset sites and activities. Part 3 complements this with more detailed guidance and possible tools to use when undertaking the different offset design steps (see below). In addition, a separate document, the **Appendices to the Offset Design Handbook**, provides a summary of various approaches, methods and policies that are relevant to biodiversity offsets and being used or developed in different parts of the world (e.g. by governments, financial institutions, etc.).

The **Offset Design Handbook** describes the activities that typically form part of biodiversity offset design under the following steps:

- **Step 1:** Reviewing project scope and activities.
- **Step 2:** Reviewing the legal framework and / or policy context for a biodiversity offset.
- **Step 3:** Initiating a stakeholder participation process.
- **Step 4:** Determining the need for an offset based on residual adverse effects.
- **Step 5:** Choosing methods to calculate loss / gain and quantify residual losses.
- **Step 6:** Reviewing potential offset locations and activities and assess the biodiversity gains which could be achieved at each.
- **Step 7:** Calculating offset gains and selecting appropriate offset locations and activities.
- **Step 8:** Recording the offset design and entering the offset implementation process.

These steps may be followed in a chronological order, but some steps depend on the outcomes of earlier ones, so the Handbook allows considerable flexibility in how offset design is best approached. Many of the activities are interdependent and can be done in parallel rather than sequentially, tailored to the specific local context. This also applies to the closely related (but not necessarily sequential) activities described in the **BBOP Cost-Benefit Handbook** and the **Biodiversity Offset Implementation Handbook**. These focus on ways of integrating people's use and cultural values into biodiversity offset design and implementation process, and actions involved in the implementation of a successful biodiversity offset, respectively.

The Biodiversity Cost-Benefit Handbook (2009)



The involvement of many different individuals and groups may be important in the design and implementation of a biodiversity offset to ensure its fairness and success. However, the **Cost-Benefit Handbook** focuses particularly on people living in and around the project and potential offset sites.

To be successful, biodiversity offsets should compensate indigenous peoples, affected communities and other local and affected stakeholders for any residual impacts of the project on their biodiversity based livelihoods and amenity. They also need to deliver the offset's conservation gains without making local people worse off, for example from land and resource use restrictions created by the biodiversity offset, and to provide incentives and perceived benefits for local people to participate in delivery of the required conservation gains. This is essentially a cost-benefit comparison between the benefits to local people of the offset, and the costs to local people of the residual biodiversity related impacts of the project and offset. The Handbook explains how offset planners may use various economic tools of valuation and cost-benefit analysis to make this comparison and arrive at a package of benefits for local stakeholders that compensate them for residual impacts and secure their involvement and support for the offset.

The **Cost-Benefit Handbook** is best used in conjunction with the other Handbooks, throughout the design and implementation of a biodiversity offset. Following a general introduction, the Handbook is structured in three main parts: Part 1 outlines four key activities (and eight steps) that offset planners can usefully undertake as part of a biodiversity cost-benefit assessment, Part 2 covers possible tools to use in the process, and Part 3 offers more detailed guidance relating to each of the activities and steps outlined in Part 1 as well as additional references to consult. A set of appendices is also included, such as a sample Terms of Reference for Economic Consultants, and further information on the possible cost and length of time required to do the studies, and on research methods and valuation techniques. There is guidance on the following broadly defined activities:

- **Activity 1:** Identifying the project's direct and indirect residual impacts on local use and enjoyment of biodiversity.
- **Activity 2:** Identifying the impacts of proposed offset activities on local stakeholders: potential offset activities and their impacts on local stakeholders at project and offset sites.
- **Activity 3:** Estimating costs and benefits to local stakeholders of project residual impacts and offset options. Scoping cost-benefit comparisons for affected stakeholders. Estimating costs and benefits.
- **Activity 4:** Specifying a fair and effective offset package. Checking that preliminary offset recommendations meet cost-benefit requirements. Revisiting, if necessary, the offset design to bring costs and benefits into balance and address distributional issues. Making the final recommendations of socioeconomic offsetting activities and quantifying the associated conservation gain.

The Biodiversity Offset Implementation Handbook (2009)



The success of mitigation measures including biodiversity offsets will depend on ensuring that an effective institutional and management structure is in place; that financial flows are sufficient; and that systems are in place to ensure that the objectives are achieved. The **Offset Implementation Handbook** assumes that the location of the offset area/s (in a single location, or as a composite) and the nature of offset

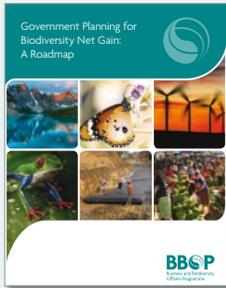
activities have been identified and that the planner is now seeking to put in place the mechanisms to ensure effective offset implementation, permanence and good governance. The Handbook discusses the potential roles and responsibilities of key stakeholders, legal and institutional aspects of establishing an offset, and how a biodiversity offset management plan can be developed. It suggests several ways in which a biodiversity offset can be financed over the long-term, discussing how to calculate the short and long-term costs of implementing the biodiversity offset. It explores long-term funding mechanisms, such as the establishment of conservation trust funds and non-fund options that explore a diverse array of revenue sources to achieve sustainability. It addresses how a biodiversity offset can be monitored and evaluated, and the final section helps the offset planner prepare to launch the implementation of the offset.

The Offset Implementation Handbook is structured in three parts: Part 1 outlines general issues to be considered in implementing a biodiversity offset, Part 2 provides information on possible tools to be used in the process and Part 3 offers additional and more detailed guidance to help with successful offset implementation. The guidance is arranged according to the following broad activities, steps and questions that may need to be considered in relation to offset implementation:

- **Activity 1:** What are the offsetting activities and where will they be carried out?
- **Activity 2:** How will the offset operate and be managed? Roles and responsibilities and potential stakeholders in offset implementation. Legal aspects of establishing an offset. Institutional aspects of establishing an offset. Development of an Offset Management Plan.
- **Activity 3:** How will the offset be financed over the long term? Calculation of short- and long-term costs of implementing the offset. Potential long-term funding options, including non-conservation trust fund options. Alternative revenue options for building or enhancing sustainability.
- **Activity 4:** How will the offset be monitored and evaluated? Implementation and impact performance. Monitoring and evaluation results used to assess and improve project performance. Certification and verification.
- **Activity 5:** Launching the offset.

THE ROADMAPS

The Roadmap for Government (2018)



This is a tool to enable a government to decide whether it wishes to make the transition to policies and a system that deliver a Net Gain of Biodiversity, No Net Loss or an alternative policy goal and, if so, offering guiding steps on how to get there. Part 1 is a broad aid to practical understanding of what's involved for a government in

planning for Biodiversity Net Gain or other goals, and the opportunities and risks of doing so. Part 2 is an operational tool that governments can use to create their own plan for establishing and operating a system designed to achieve a Net Gain, No Net Loss or an alternative defined outcome for biodiversity in their policy and planning. Understanding that different governments have different approaches, structures and relationships, the roadmap does not offer detailed directions, but rather provides general suggestions and illustrative ideas, together with links to additional information where users can find additional practical advice. A separate document provides an Appendix with several Technical Notes offering supplementary information referred to throughout the Roadmap.

The Benchmark for Government (2018)



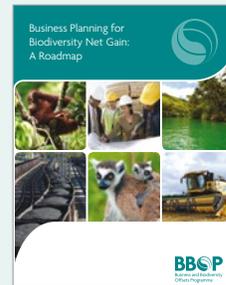
The intention is for this benchmark to be used to review governments' systems for mitigation (e.g. policy and governance arrangements established by each government for mitigation of impacts on biodiversity at the national, state or local government level). It allows comparison between different governments' approaches at a point

in time, and also comparison between the approach of the same government at different stages in development and implementation of policy. (It is not intended that the benchmark would be applied to assess individual projects and their respective mitigation measures.)

The benchmark is divided into two broad sections: one on the process by which policy in the country concerned is developed and implemented and the other on the content of the policy.

Part 1 of the document offers a summary, providing the criteria covered in the benchmark. Part 2 of the document is the benchmark itself, setting out characteristics for each criterion according to 'low', 'medium' or 'high' performance.

The Roadmap for Business (2018)



This tool on Business Planning for Biodiversity Net Gain (BNG) sets out steps to enable a company to decide whether it wishes to make the transition to activities that deliver a Net Gain for Biodiversity (BNG), No Net Loss or a similar goal, and how to get there. This roadmap document sets out an

outline with links to more help. It is based on the Plan-Do-Check-Act Cycle that forms part of the ISO 9001 Quality Management System. It does not seek to be prescriptive, understanding that different companies have different internal structures and relationships. Part 1 explains the 'why and what' of planning for BNG, including the opportunities and risks of doing so. The scope of planning for BNG can vary, and it can be approached in a number of ways. Part 2 offers actions towards BNG that businesses can take for their preferred scope, describing options with one possible output being a company plan for BNG. This is set out in a series of steps. Part 3 offers suggestions on applying the steps described above in four different situations each with a different scope: (1) working towards BNG at the site or project level (i.e. site by site, case by case); (2) approaching BNG by setting a corporate strategy, and working towards BNG across the group; (3) working towards BNG through the value chain (e.g. working with suppliers so they achieve BNG); and (4) (for financial institutions) considering BNG in investment decisions and engagement. Part 3 gives links to more tools and information. Finally, a separate document provides an Appendix with several Technical Notes offering supplementary information referred to throughout the Roadmap.

THE RESOURCE PAPERS

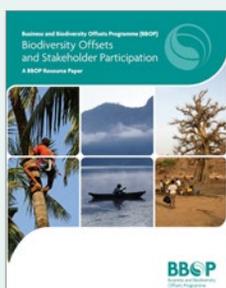
Resource Paper on Biodiversity Offsets and Impact Assessment (2009)



This Resource Paper considers whether and how the process of designing and delivering biodiversity offsets should be integrated with impact assessment. It explains why impact assessment might be considered a suitable ‘vehicle’ for biodiversity offsets and outlines its possible role. It introduces Environmental Impact Assessment (EIA) and Strategic

Environmental Assessment (SEA) and describes how they inter-relate in planning systems. Many businesses integrate their environmental and social impact assessment processes in Environmental and Social Impact Assessment (ESIA) and embed these in overall Social and Environmental Management Systems, as the paper explains.

Resource Paper on Biodiversity Offsets and Stakeholder Participation (2009)



Different stakeholders may place very different values on biodiversity. Thus, effective stakeholder participation is critical to both the success and fairness of biodiversity offsets. The aim of this paper is to explain the value and purpose of identifying stakeholders (e.g. communities living in the vicinity of a project, governmental officials, academic institutions,

technical specialists and non-governmental organizations) and engaging them in the design and implementation of biodiversity offsets. The paper also provides guidance on relevant good practice tools and approaches. It is intended to support the Biodiversity Offset Design, Cost-Benefit and Implementation Handbooks and help offset planners implement the Principles on Biodiversity Offsets by offering suggestions and source material on best practice in the participation of stakeholders in the design and implementation of biodiversity offsets.

Resource Paper on Corporate Natural Capital Accounting for Biodiversity Net Gain (2018)



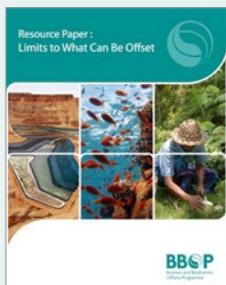
This Resource Paper shows that a natural capital account can be used to monitor whether No Net Loss (NNL) or Net Gain (NG) of biodiversity is achieved, and to quantify the wider environmental, societal and economic co-benefits of NNL or NG. It presents a Corporate Natural Capital Accounting (CNCA) frame-

work to measure and report the wider environmental impacts of applying best practice methods (i.e. following the mitigation hierarchy) to achieve NNL/NG of biodiversity. It explains how this joint NNL/NG and CNCA framework has been tested through a proof of concept case study. The Joint NNL/NG and CNCA balance sheet for the project site and the offset site(s) under this framework shows the impact of the project development with its mitigation measures, including the biodiversity offset (or compensation).

The paper explains how the CNCA framework can be adapted to integrate NNL/NG. It is designed to inform the management of discrete areas of land including both the site or sites that have been developed (the ‘project site(s)’) with the mitigation measures there (avoidance, minimization and restoration) and the site or sites where biodiversity offsets or compensation take place (the ‘offset site(s)'). The framework also explicitly captures stocks, flows and costs associated with changes in natural capital. This provides a structure in which biodiversity information can be recorded. The accounting can be undertaken over the lifecycle of a project, in order to monitor whether NNL/NG is achieved and maintained. The method shows how activities to achieve No Net Loss or Net Gain of biodiversity can generate wider environmental, societal and economic benefit, and places a monetary value on these co-benefits. It explicitly records:

- a) Net changes to biodiversity (using the biodiversity metric applied to quantify losses and gains of biodiversity following the mitigation hierarchy).
- b) Net changes to the value of natural capital assets from combined losses and gains in biodiversity from the project and offset.
- c) Changes to costs at the project and offset sites, reflecting the full costs of the mitigation hierarchy.

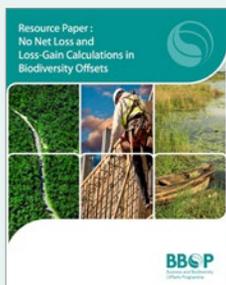
Resource Paper on Limits to What Can Be Offset (2012)



This Resource Paper updates and complements information published in the **Offset Design Handbook** and supports the interpretation of the Biodiversity Offset Standard. The paper focuses specifically on Principle 2: 'There are limits to what can be offset'. This emphasises an important premise, namely that biodiversity offsets are not appropriate for

all development impacts on biodiversity as some impacts cannot be offset. Thus, where the residual impacts of a proposed development project are so great as to cause irreplaceable biodiversity loss (such as in an extreme example the global extinction of a species), no biodiversity offset would be able to compensate for this loss, and a 'no net loss' or net gain outcome would be impossible to achieve. The paper outlines a set of ecological and other factors (e.g. social, technical, financial) that can help to determine the likely 'offsetability' of impacts, i.e. whether impacts are likely to be easy or difficult to offset. These factors are broadly arranged according to a green-amber-red system of categories corresponding to the level of risk that may be expected when proposing an offset in a particular situation. It then describes the kind of evidence ('verifiers') that should be produced to demonstrate the offsetability of impacts for each risk category. The paper also offers information on specific thresholds relating to limits to what can be offset that have been set or indicated in different contexts (bank or government policies).

Resource Paper on No Net Loss of Biodiversity and Loss-Gain Calculations (2012)



This Paper updates and complements information published in the **Offset Design Handbook** and supports the interpretation of the Biodiversity Offset Standard. It specifically addresses Principle 4 (No Net Loss, 'NNL') although an understanding of NNL is relevant to all of the ten BBOP Principles. The paper outlines the key issues that need to be

considered in working towards the goal of biodiversity offsets — i.e. achieving a NNL or net gain outcome for biodiversity. First, the meaning of NNL and its relationship to the BBOP Principles is outlined, and the paper then sets out a broad conceptual framework for approaching the quantification of biodiversity losses and gains as part of

an offset. A typology of currencies that may be used in loss/gain calculations is included, important considerations when selecting reference (or benchmark) conditions are set out, and some of the key sources of risk and uncertainty in assessing biodiversity losses and gains are discussed, along with some responses that may be used to address these.

The intended audience for the two Resource Papers on No Net Loss of Biodiversity and Limits to What Can Be Offset is ecological specialists and technical consultants advising companies, governments and/or others wanting to undertake a biodiversity offset. The paper should be used in conjunction with the Offset Design Handbook, in particular, as well as the Cost-Benefit and Offset Implementation Handbooks.

Resource Paper on Stacking and Bundling (2018)



Stacking and bundling refer to different ways of packaging multiple ecosystem goods and services (including biodiversity) either for sale in environmental compensation schemes or to attract incentive-based conservation funding. The topic is of increasing interest, since companies and policy-makers hope

to coordinate their work on biodiversity, carbon, water, natural capital, and social and livelihood issues. An important question in policy and practice is how to maximise the benefits and limit the risks associated with each of these multiple service-focused approaches in different contexts. The paper summarises an extensive review of the theory and practice of Stacking and Bundling approaches based on a number of case studies. It offers key definitions, examples of schemes in practice, and it outlines the potential benefits and risks of different approaches. The paper highlights the challenges related to stacking, in particular, and offers recommendations based on a review of experience.

Endnotes and References

ENDNOTES

ⁱ IPBES, 2018; World Economic Forum, 2018

ⁱⁱ WWF and ZSL, 2016

ⁱⁱⁱ Ceballos et al., 2015; Chivian and Bernstein, 2008; Thomas et al., 2004

^{iv} Laurance et al., 2015

^v https://www.forest-trends.org/bbop_pubs/glossary_2018

^{vi} Mercer and IDB, 2017

^{vii} FAO, 2011

^{viii} IPCC, 2018

^{ix} IPBES, 2018

^x UN, 2015; CBD, 2010

^{xi} <https://www.forest-trends.org/signatories-to-the-bbop-standard/>

^{xii} ten Kate and Crowe, 2014

^{xiii} Maron et al, 2016; IUCN and The Biodiversity Consultancy, 2017

^{xiv} The Biodiversity Consultancy, 2018, in prep.

^{xv} Consumer Goods Forum, 2010

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“BBOP has played a critical role establishing and describing a globally applicable tool for environmental conservation and the reduction of impacts from development projects. Testimony of its utility is how frequently it is referenced and can be seen in the safeguards and policies of international organizations such as IUCN, the World Bank, and the United Nations. This Overview and the tools it contains are a key resource”

— **STEVE EDWARDS**, IUCN

“BBOP has been hugely valuable, providing a robust multi-stakeholder forum aimed at establishing consensus-based best practices on mitigation, including biodiversity offsets”

— **STEVEN DICKINSON**, TOTAL

“For Ambatovy, the incorporation of the BBOP offsetting principles in the design of its mitigation measures (using the associated tools) was central to building stakeholder acceptance, the permitting of the project and ongoing monitoring of operations”

— **ANDREW MACKENZIE**, AMBATOVY

“BBOP has contributed immensely to the development of the concept of biodiversity offsets over the years and I salute its legacy in environmental management! The BBOP materials have been useful to the government of Uganda in the review of environmental legislation”

— **CHRISTINE AKELLO**, NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

“BBOP has changed the mitigation landscape through its work — and introduced a whole new perspective with higher aspirations”

— **SUSIE BROWNLIE**, INDEPENDENT CONSULTANT

“I credit BBOP with making a real change in the way people think about development across a wide spectrum and it has undoubtedly been a paradigm changer in the corporate world”

— **MARK PIZEY**, FORMER CHAIRMAN OF THE BBOP BUSINESS ADVISORY COMMITTEE

“BBOP has been a real eye-opener for me and has certainly framed how I have approached my own work in the past decade or so”

— **BOB EDMONDS**, SLR

“BBOP’s work has been and will continue to be absolutely fundamental to all we do”

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— **LORI ANNA CONZO**, IFC



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www.forest-trends.org/bbop